

CONSTRUCTION STANDARDS

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CONSTRUCTION STANDARDS

APPLICABLE TIME LIMITS

The Rhode Island Contractors' Registration and Licensing Board and the Board staff, under normal conditions, will inspect for Performance Standards and code violations during the time limits set forth by R.I.G.L. § 5-65-12. Contractor responsibility does not extend to items which have been subject to owner neglect, modifications, or abnormal use.

Defects in appliances, fixtures and heating/air conditioning equipment, properly installed by the contractor, shall be limited to the manufacturers' warranties. Nothing in this section creates a warranty or limits a warranty.

APPLICABLE BUILDING CODES

Building codes change from time to time, so for the purpose of these Performance Standards, the building codes governing the life safety, structural, mechanical, plumbing, electrical, fuel, gas, and energy requirements for new construction or alterations that were adopted and in effect at the time of the completed work, must be used to determine compliance. Inspection of specific components or systems by registered/licensed inspectors of the governmental authority having jurisdiction will provide evidence of presumed compliance.

PERFORMANCE STANDARDS

The Performance Standards are intended to specify the minimum performance standards for construction or alterations of residential structures. Common defects and problems are addressed in this section however it is impossible to list every potential issue. Other defects or problems which are not specifically mentioned in this section may still be considered by the Board. In such cases, the Board shall rely on generally accepted practices or industry standards to determine if a deficiency exists and what remedies shall be implemented to correct any identified defects or problems.

SECTION 1 Grading, Ground Removal, Gravel & Fill

Background:

It is the intention of this standard to assist in obtaining a uniform acceptable understanding of grading and related problems. The standard is not meant to supersede or substitute for other restrictions placed by agencies or communities. It is for this reason no mention is made as to FHA requirements or disputes that may arise as a result of similar agencies. Such agencies have written manuals or means of arbitrating such disputes.

Because this phase of construction dealing with the movement of earth is so broad and ambiguous, and since each site is unique unto itself and subject to the most diverse contractual relationships, it is thus necessary to establish certain “ground rules” or definitions for phases of work.

If finished grading or landscaping is not included in the building contract, it is of absolute necessity the owner promptly follow through with his/her grading and landscaping responsibilities and maintain a positive slope away from the foundation, including refilling any settled backfilled and trenched areas. The lack of proper maintenance in this area may cause foundation failure that will not be covered by the builder.

Definitions:

Backfilling: To fill the exterior around a foundation or in a trench using a bulldozer or other necessary mechanical equipment utilizing only the ground which was available from such excavation or trench. The purpose of backfilling is to improve working conditions for further construction; attempt to protect the foundation from the elements such as frost, water etc., reduce the hazards inherent to open basements or foundations and get the process of ground settlement started which could take three or more years depending upon the type of soil. Builder is not responsible for settling after one year from project completion.

Excavation: To remove soil to the level and outline of the proposed footings in such a way as to permit material delivery for the mason or concrete formers to commence work. Excavated soil is normally cast (dropped on the property) around the foundation except where lot size, site conditions and/or elevation requires its removal. Trucking costs are the responsibility of the owner.

Finish Grading: Using mechanical equipment and the dirt on the site, the grader establishes the yard grade within two inches of final landscaped grade with respect to the building, walks, drive and adjoining properties. Depending on the terms of the contract this would ordinarily include the entire lot. This is normally contracted for by the owner and is the step just prior to landscaping.

Hauling (Trucking): Hauling away excess ground or supplying and hauling in required fill, unless otherwise specified in the contract, is the responsibility of the owners.

Landscaping: Using light machinery or hand labor the grader finishes establishment of final grade, sodding or seeding, and provides ornamental shrubbery, trees and other planting. This is normally contracted for by the owner.

Rough Grading: Using mechanical equipment, the grader provides drainage away from the foundation in such a way to indicate approximate grades at the building, walks, patios, and driveways. This is normally done on an allowance specified in the contract. Builder is not responsible for settling.

Site, Drainage and Erosion: Site drainage must comply with all applicable building codes and local jurisdiction. All sites must be prepared initially to prevent or reduce erosion from excessive water runoff. All contractual agreements made between parties will take precedents over guidelines. Homeowner maintenance is required after the possession of site.

Common Defects or Problems:

- 1.1 Settling of ground** around foundation, sewer or septic trenches, utility trenches and gravel-fill-in garage area after backfill operations

Performance Standard

Backfilled ground will settle. In fact, it is the intent to permit settling before further grading is done.

Builder Repair Responsibility

To the extent provided in the building contract, the builder is to perform the initial backfilling. Where the builder is not responsible by contract for finish grade or landscaping, the builder shall not be responsible for normal settling of backfilled or trenched areas. Settling of ground around foundations, walls, utility trenches, or other filled areas which exceeds a maximum of six inches from the finished grade established by the contractor, shall be repaired by the builder during the first year of occupancy or completion of construction.

Owner's Responsibility

Unless otherwise specified by contract, fill in such depression as they occur or as soon as possible to avoid other related problems.

- 1.2 Wet Basement Walls** after backfilling due to insufficient slope away from the foundation when builder is responsible for backfill and/or rough grading only. "Wet" shall be defined as actual water running or trickling from, through or under the basement wall and onto the floor thus puddling or eventually finding the floor drain (should one exist). Dampness of the walls particularly at the upper two (2) and lower (1) foot are common to new construction and should not be construed as "wet."

Performance Standard

Wet walls are usually a result of sunken areas around the foundation if final grading has not been completed. The subsequent proper grading and landscaping should eliminate damp or wet basements.

Builder Repair Responsibility

Backfill in accordance to item 1.1.

- 1.3 Wet Basement Walls** Due to Insufficient Slope and Drainage Away from Foundation when builder has contracted for finish grading.

a) **Performance Standard**

While some dampness is normal, walls should not be wet as defined in item 1.2 above.

b) **Builder Repair Responsibility**

If landscaping is owner's contractual responsibility and not completed within 30 days of finished grading, there is no builder responsibility. Otherwise, builder should correct slope as needed. Other costs incidental to such correction are borne by the builder.

c) **Owner Responsibility**

Fill in depressions, as they occur, due to settling. Direct downspouts and sump pump discharge from foundation and use extensions as needed. The owner's proper landscaping should eliminate a wet basement.

1.4 Improper drainage of the site

Performance Standard

The builder, to insure proper drainage away from the home, shall have established the necessary preliminary grades and swales. Standing or ponding water shall not remain for periods in excess of 48 hours in the immediate area after a rain, except that in swales which drain other areas, or in areas where sump pumps discharge, a longer period can be anticipated. Consideration must be given to the type of soil present and to the relationship to surrounding terrain. The possibility of standing water after an unusually heavy rainfall should be anticipated. No grading determination shall be made while there is frost or snow on the ground, or while the ground is saturated.

Builder Repair Responsibility

The builder will try to establish the proper grades and swales based on soil conditions, site, and weather conditions. The homeowner is responsible for maintaining such grades and swales once they have been established.

1.5 Soil Erosion Heavy rains will cause erosion where grass and sod has not had time to be permanently established. Additional landscaping by homeowner or his agent can change the topography of the site.

Performance Standard

The defects or problems can be determined by visual inspection or by additional information gathered during the site inspection.

Builder Repair Responsibility

Restore grade to its original finish as closely as possible. Repairs, if required by inspection, will be made no more than one time during first year.

SECTION 2 SITE DRAINAGE AND EROSION

Background

Site drainage must comply with all applicable building codes and local jurisdiction. All sites must be prepared initially to prevent or reduce erosion from excessive water runoff. Homeowner maintenance is required after possession of the site.

Common Defects or Problems:

- 2.1 **Soil Erosion** during heavy rains will cause erosion where grass and sod has not had time to be permanently established. Additional landscaping by the homeowner or his agent can change the topography of site.

Performance Standard

The defects or problems can be determined by visual inspection or by additional information gathered at the site inspection.

Builder Repair Responsibility

None, the owner is responsible for maintaining such grades and swales once properly established by the contractor to prevent runoffs and erosion of the soil.

SECTION 3 MASONRY & CONCRETE STANDARDS

Background

Masonry and concrete work in residential construction provides the base structure upon which the house is built and a permanent fire-proof construction and weatherproof exterior. The work is performed with quarried natural materials or with products manufactured by relatively simple processes which have been selected for their wearing qualities. As such, they are subject to the same weathering phenomena as in their natural state, such as erosion, freezing and thawing, chipping, natural color variations and non-uniformity of size.

Masonry work can be performed with an almost infinite variety of materials, methods of application and techniques of installation. This permits the owner an almost infinite range of personal choice but at the same time, creating, once that choice has been made a situation that can never be exactly duplicated. Masonry, more than any other trade, is dependent upon the variation of the product and the techniques of the individual workman.

Masonry and concrete work consists of four primary divisions:

1. The construction of a basement which may be either cast-in-place (poured) concrete or concrete block masonry installed on footings.
2. The placing (pouring) of flat slab areas consisting of footings, basement and garage floors, stoops, patios, in-ground pool aprons, walks or drives.
3. The veneering of the exterior of some structures with brick, stone or other masonry products.
4. The construction of fireplaces and chimneys.

Concrete is subject to several natural changes. The first is shrinkage in the hardening process, which creates shrinkage cracks, the type most common in concrete work, especially in flat slabs. Shrinkage cracks themselves do not affect the integrity of the surface. Concrete is subject to the elements and is affected by certain chemicals. Pitting, scaling or spalling can develop under unusual conditions or when certain salt or chemicals are placed on a slab in winter for ice removal or drop from a car onto a garage slab and/or drive. A certain amount of surface dusting is normal. Proper owner maintenance can alleviate most of these situations. A sealer can be applied by the homeowner to the concrete to minimize dusting and spalling and effects from chemicals.

Cracking is characteristic of concrete and Cracks in concrete walls or mortar joints of block foundations generally do not affect the structural strength of the home. Cracks are caused by settling of the house, shrinkage of concrete, and expansion and contraction and may occur continually throughout the life of the house.

Settling is a natural phenomenon in the construction of a new home and concrete slabs are subject to the settling process. For this reason it is recommended that wherever possible, the construction of floating slabs, such as patios, walks and drives, be postponed until at least the end of the first year of occupancy or even longer so that a more stabilized soil condition will be available prior to actually doing the work.

Masonry and concrete work is also subject to color and texture variations due to the nature of the materials. Repairs, when made, seldom match in color and some variation is to be expected by the owner.

When selecting a veneer material, predominantly a matter of owner preference, many factors enter in, such as: the bond or pattern to be used for the brick or stone, the selection of the type of mortar

joint (whether struck, raked or weeping pattern), the color of the mortar and the shading variation from batch to batch, the shades of the material involved and their relative contrast with the mortar chosen, the choice of material size, standard or king size brick or the type of stone chosen, and, finally, the individual workmanship of the mason. All of these variables set up a distinctive situation within the masonry field.

Common Defects or Problems:

3.1 Leaks in Basement or Wet Basement

Performance Standard

No leaks or flow of water are acceptable, except when caused by an improper ground pitch away from the foundation (a proper pitch is 6" down for every 10' out from the foundation and must be maintained by the owner), or improper landscaping or subterranean problems where the responsibility is defined as the owner's by the building contract. Leaking conditions should not be confused with dampness or moisture, which can be expected by the owner during the first year of the settling process, or with condensation during the summer months. If the basement had an engineered waterproofing system on it, then the owner should refer to the manufacturer's warranty.

Builder Repair Responsibility

Builder should correct as required. After correction, any openings made in order to correct should be repaired. Color variations in repairs are to be expected.

3.2 Cracked Basement Walls

Performance Standard

Hairline cracks in mortar joints or cast-in-place concrete not exceeding 1/8" width or hairline cracks in a single isolated block not extending to any adjacent blocks, providing these cracks do not cause a leaking problem are acceptable. If the cracks are caused by an improper pitch away from the foundation or owner landscaping, it is the responsibility of the owner to repair.

Builder Repair Responsibility

Builder to repair any cracks in mortar joints or poured walls exceeding 1/8" width. Unless structural danger exists, repairs should be made approximately a year after occupancy to permit normal settling through the stabilization period. Broken blocks should be removed from the inside and refaced with a 4" block. Grout colors should be matched as closely as possible, but color variations should be expected by the owner. Exterior repairs will not be made except in the case of major structural damage.

3.3 Cracking of Basement Floors

Performance Standard

Shrinkage cracking is to be expected and requires no repair unless one or both of the following conditions exist:

- a. If vertical displacement is more than 1/4"
- b. If horizontal crack is more than 1/4"

Builder Repair Responsibility

Builder shall correct using latex filler, surface patching or other methods as required, grinding surfaces smooth in case of mismatch. Owner is cautioned repair may not match in color and a hairline crack may reappear.

3.4 Cracking of Garage Slab

Performance Standard

Cracks in garage slabs in excess of 1/8" in width or 1/8" in vertical displacement shall be repaired.

Builder Repair Responsibility

Builder will repair cracks exceeding maximum tolerances by surface patching or other methods as required. See repair method for #3.

3.5 Cracks in Patios, Pool Aprons, Walks and Driveways

Performance Standard

Except as may be otherwise covered by contract, no warranty against settling can be extended for floating slabs installed on soil. Patio slabs which are poured separately, and adjoin the house are excluded. Cracks in excess of 1/8" in width or 1/8" vertical displacement shall be repaired.

Builder Repair Responsibility

Builder is to repair to meet Performance Standard. If replacement of a section is required, the minimum section should be removed from the walk or driveway at the blind or open joint.

3.6 Pitting, Scaling or, Spalling and Chert pops of Concrete Work

Performance Standard

The aggregate in concrete work should not be exposed unless it is caused by a concentration of water, freezing and thawing, use of salt or other chemicals and mechanical implements, and other factors beyond the builder's control. Owner should consider applying concrete sealing compound.

Builder Repair Responsibility

Correct using a latex filler or grind to remove defect to meet acceptable tolerance. Owner is cautioned latex repair will not match in color.

3.7 Powdering or Chalking of Concrete Work

Performance Standard

Powdering or chalking may occur. Builder should advise owner to seal the surface with a concrete sealing compound.

Builder Repair Responsibility

None, however only if the surface is soft, other repairs may be required- these are rare and severe instances in which builder would then be required to correct.

3.8 Low Spots in Concrete Slabs, (except for stoops with foundations)

Performance Standard

No water pockets exceeding ¼” depth shall exist in any slab within a 32” length which is pitched. Where a level slab has been requested by the owner or in basements, water pockets may appear.

Builder Repair Responsibility

Correct to meet performance standards by filling with a latex or equivalent filler or grind as necessary. Finished repair should be feathered and smoothed. Minor color variations are to be expected.

3.9 Cracking of Stoops with Foundations

Performance Standard

The effects of cracks or settling with inadequate drainage on stoops make acceptable tolerances much lower than for other slab forms. All cracks, except hairline cracks with no settling, require repair. Minor chips and cracks just beyond the acceptable tolerance should be corrected with latex filler and beyond that point when complicated by settling.

Builder Repair Responsibility

Correct to meet performance standard.

3.10 Water Standing on Stoops with Foundations

Performance Standard

No measurable water depth exceeding ¼” is permissible on stoops.

Builder Repair Responsibility

Correct to meet performance standards by filling with latex filler or grinding. If the defect becomes qualified under item #9 on stoops, it shall be replaced as stated in that item.

3.11 Settling, Heaving, or Separating of Stoops, Steps or Garage Floors

Performance Standard

Stoops, steps or garage floors shall not settle, heave or separate in excess of 1 inch (1”) from the structure.

Builder Repair Responsibility

Builder shall take whatever corrective action is required to meet the Performance Standard or the building code.

3.12 Basement Floor Does Not Pitch to Floor Drain

Performance Standard

Basement floors are only pitched in the immediate area of the floor drain, when drains are allowed by code. When there is to be a finished floor area around the drain, floors will not be pitched.

Builder Repair Responsibility

None, if the floor meets the Performance Standard or the building code.

3.13 Cracks in Mortar Joints of Brick or Other Masonry Veneer Walls

Performance Standard

Small hairline cracks due to shrinkage are common in mortar joints in masonry veneer construction as long as they do not exceed 1/8” in width.

Builder Repair Responsibility

Builder will repair cracks in excess of Performance Standards by pointing or patching. These repairs shall be made within the first year of the warranty period. Owner should note that there may be a color variation between old and new mortar.

3.14 Brick is Different Color than what was Selected or Colors Vary

Performance Standard

Due to the natural materials used to make brick, there will be color lot variations. Even within a lot, bricks may vary in color.

Builder Repair Responsibility

None

SECTION 4 CARPENTRY STANDARDS - ROUGH

(Rough Carpentry, Lumber & Trusses)

Background

Framing or rough carpentry provides the skeletal structure which includes fabrication of wood portions of the floor systems, exterior walls, interior partitions and roof which are built on and supported by the foundation.

The exterior wall framing is designed to support the vertical load from the floors and roof and to resist lateral loads resulting from winds. Interior partitions may or may not be load bearing. The roof is designed to support its own weight plus that of anticipated loads from snow, ice and wind. The framing is quality controlled by the building code and subject to building inspection when the entire framed structure can be viewed. Wood framing can be fabricated on or off a job site, or a combination of both. Even when most of the framing is done on site, there has been a trend to use pre-manufactured components, such as roof or floor trusses, in lieu of the more conventional joist and rafter construction.

As a natural product, wood will respond to humidity and temperature conditions and can cause shrinking, twisting or warping of the framing material. Some of these conditions can be controlled or minimized; others are due to the nature of wood itself. In single family construction, lumber type and grade, span, spacing and load bearing capacities are tightly controlled by code.

Common Defects or Problems:

4.1 Floors that Squeak

Performance Standard

Floor squeaks are common to new construction and a squeak-proof floor cannot be guaranteed. Isolated floor squeaks are not a deficiency. A large area of floor squeak which is noticeably loud is a deficiency.

Builder Repair Responsibility

Builder should try to minimize the floor squeaks and must correct if caused by a construction defect. It should be noted that a second floor repair would be surface nailing in carpeted areas and impossible in vinyl or ceramic areas.

4.2 Uneven or Unlevel Floors

Performance Standard

Floors shall not be more than ¼” out of plane or level in finish flooring areas or ½” out of plane in carpeted areas within any 32” measurement.

Builder Repair Responsibility

Builder’s repair must meet performance standard

4.3 Crowned Floor Joists

Performance Standard

Floors shall not be more than ¼” out of plane or level in finish flooring areas or ½” out of plane in carpeted areas within any 32” measurement when measured parallel to the joists.

Builder Repair Responsibility

Builder's repair must meet performance standard.

4.4 Seams or Ridges Appear in the Resilient Flooring due to Subfloor Irregularities

Performance Standard

In the natural settling and shrinkage process, some mismatch of the subfloor may exhibit and mirror itself as ridges or depressions showing on the surface goods. This can be minimized by the customer in his selection of an embossed pattern in a darker color. In particular, lighter solid colors and/or smooth vinyl surfaces mirror any minor variations of the sub-surfaces to which they are applied and emphasize this ridging. If the ridge or depression effect exceeds 1/8" and cannot be corrected from below, the resilient floor must be corrected.

The ridge measurements should be made by centering a two foot (2') level at the top of the ridge and measuring the height of the ridge at one end of the level. The gap measurement should be made by centering a six inch (6") straight edge tightly on each side of the defective area and measuring the depth of the gap.

Builder Repair Responsibility

If ridges or gaps exceed the standard, builder to shall remove the sheet goods in the minimum area where the joint will not be readily visible when repaired, re-nail the subflooring, sand smooth and/or fill ridges or gaps and replace the sheet goods. Should the defect(s) affect more than 25% of the total area, the entire floor covering shall be removed, the sub-floor properly prepared and new material installed (at the discretion of the Board). Owner should note that there may be a mismatch in materials due to time or dye lot variations. If the material is unavailable due to discontinuation, unless the owner will accept a repair with as closely matching materials as is currently available or correction by some other means, builder should credit the owner 1 1/2" times the cost to repair if the material were available. This would be 1 1/2 times the minimum service charge, plus the additional hourly labor charge and the material cost needed to make the repair.

4.5 Bowed Walls

Performance Standard

All interior and exterior walls may have slight variances on their finished surfaces. Walls should not bow more than 1/4" out of line within any 48" horizontal or vertical measurement.

Builder Repair Responsibility

Builder's repair must meet performance standard.

4.6 Out of Plumb Walls

Performance Standard

Walls should not be more than 1/2" out of plumb for any 7' vertical measurement.

Builder Repair Responsibility

Builder's repair must meet performance standard.

4.7 Out of Plumb Windows or Windows do not operate

Performance Standard

Windows must operate with reasonable ease as designed.

Builder Repair Responsibility

Builder to repair to be operable.

4.8 Cracked or Broken Trusses

Performance Standard

Builder to contact truss manufacturer to make sure truss conforms to its engineering.

Builder Repair Responsibility

Builder to repair as per recommendation of truss manufacturer.

4.9 Bowed Ceilings

Performance Standard

All interior and exterior frame ceilings have slight variations on the finished surfaces. Bowing should not be visible so as to detract from the finished surface. Ceilings, which are bowed more than ½ inch within a 48” measurement running parallel with ceiling joist or truss, shall be excessive.

Builder Repair Responsibility

Builder’s repair must meet performance standard.

SECTION 5 ROOFING STANDARDS

Background

The purpose of roofing material is to form a weatherproof surface, which prevents water or snow from entering the structure. The materials used must be both waterproof and wind-resistant to afford effective protection of the dwelling. Both low-slope and steep-slope roofing materials shall be installed as per State of Rhode Island Building Code, manufacturers' specifications and industry standards for geographical area. The National Roofing Contractors Association (NRCA) roofing manuals should also be used as a guideline for industry standard on all low-slope and steep-slope roofing system installations.

Roofing materials have various life expectancies. Life expectancy is dependent upon building orientation to the sun and roof slope. The manufacturer provides a written warranty for each particular product, which delineates what is and is not covered. Although the sun is the major damaging force, wind and moisture also causes deterioration.

There are several types of steep-slope roofing materials used including asphalt shingles, fiberglass, wood, slate, metal and tile. The normal measurement of shingling material is the "square" which represents enough material to cover 100 square feet of roof area. Asphalt shingles, wood shakes, synthetic and natural slate, metal, tile roofs and other specialized roofing materials each have a specific method of installation recommended by the manufacturer and/or industry standards.

Shingle underlayment and ice barriers must be applied directly to roof boards, as per the building code. Exception: Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane in accordance with the applicable codes.

Roofs or flashing should not leak under normally anticipated conditions. However, occasionally leakage may result from severe weather conditions, such as ice buildup, high winds, or driving rain. Wind driven rain may also result in leaks unrelated to the roofing installation.

During extreme weather conditions, water may overflow the gutters. Homeowners should check gutters and downspouts regularly to prevent leaf, branch and debris build-up in fall and snow and ice dams in the winter, which can cause water to backup under the shingles and cause leaks. Storm damage to properly installed roofing is the owner's responsibility.

It must be noted that in the case of a repair to a roof, every effort must be made by the builder to match material and color as closely as possible. The homeowner however should expect color variations.

Common Defects or Problems:

5.1 Roof Leaks

Performance Standard

Roofs should not leak. See homeowner's maintenance responsibility below. The integrity of the roof is dependent upon the performance of many trades. Roof application, sheet metal work, siding application, masonry, carpentry and plumbing can all have an effect on the ultimate performance of the roof system.

Builder Repair Responsibility

When a leak appears, the builder should make an inspection to assure that the proper trade makes the repair, except when the leakage is a homeowner's maintenance responsibility.

Homeowner Maintenance Responsibility

Excessive ice or snow buildup with alternate freezing and thawing can create a condition causing leakage, which is a homeowner maintenance responsibility. Owner can correct this by preventing leaf and debris buildup in gutters and removal of excess snow and ice. In severe cases, a gutter heating cable may be considered. On some occasions, a driving rain with high wind velocity can produce a temporary leak. Owner can also contact the builder as to alternative suggestions on how to correct.

5.2 Chimney and other Roof Penetrations or Flashing Leaks

Performance Standard

Chimneys and other roof penetration flashings should not leak.

Builder Repair Responsibility

The builder is to check and repair chimney flashings. On particularly persistent and severe leaks, the builder may find it necessary to modify, or install a cricket or saddle between the roof and the chimney to divert roof water run-off from the chimney. A cricket or saddle shall be installed on the ridge side of any chimney or penetration more than 30 inches wide as measured perpendicular to the slope. Exception: Unit skylights installed as per building code. If the flashing is not the cause of the leak, owner is responsible to seal masonry or other cladding.

5.3 Shingles that Blow Off

Performance Standard

Shingles should not blow off during the contractor's warranty period except under severe storm conditions unless specified in the contract. It should be noted that asphalt shingles require a minimum surface temperature over a period of time as per manufacturer's specifications to affect the full seal. Manufacturer warranties may include enhanced wind speed protection and may also provide homeowner remedies provided contractor has installed shingles according to the manufacturer's instructions.

Shingles shall be installed over solidly sheathed decking and nails shall be of a length to penetrate through the roofing materials and deck per building code and manufacturer's installation instructions. Where the roof slope exceeds 21 units vertical in 12 units horizontal (21:12), shingles shall be installed as required by the manufacturer.

Builder Repair Responsibility

The builder is to repair shingles that have blown off if not due to winds which occur during severe storm conditions. In a repair situation, the owner is cautioned that a color mismatch in shingles may occur.

5.4 Damaged Shingles

Performance Standard

Damaged shingles must be replaced if reported to builder in writing prior to occupancy or during contractor's warranty period unless caused by misuse, abuse, severe storm damage or other acts of God.

Builder Repair Responsibility

Builder to repair and match shingles as closely as possible.

5.5 Standing Water on Low-slope Roofs

Performance Standard

Low slope roofs must be installed according to manufacturer's specifications and the building codes.

Builder Repair Responsibility

Builder to repair to manufacturer's specifications and building codes

5.6 Moss and Fungus Growth on Roof Coverings

Performance Standard

Under some conditions, moss and fungus tends to grow on roof coverings

Builder Repair Responsibility

None. Homeowners may wish to pursue remedies on the market that can be applied to roof coverings to prevent or retard these conditions.

5.7 Skylights that Leak

Performance Standard

Skylights should not leak.

Builder Repair Responsibility

Builder to repair accordingly to stop leaks. Care should be taken not to confuse condensation for leakage. Refer to Moisture Standards in Section 20.

5.8 Roof Vents that Leak.

Performance Standard

Under certain extreme conditions, vents may leak. Vents are a necessary and integral part of a building. Anything that lets air out can, under certain circumstance, could let snow or rain back in.

Builder Repair Responsibility

This may be a normal, temporary condition, which should require no repair. However, builder is required to install all roof vents as per building codes and manufacturer's specifications.

5.9 Ridges of Roof Decking Shows Through Roof

Performance Standard

If the ridge or depression effect on a steep-slope roof exceeds 3/8" and cannot be corrected from below, the ridge must be corrected. The ridge measurements should be made by measuring the gap created when a 6" straight edge is placed tightly 3" on one side of the defect and the gap measured between the roof and the straight edge of the other end. It

should be noted that fiberglass reinforced shingles may magnify and mirror any unevenness of the roof decking below that may have not been evident with previous roof coverings.

Plywood or OSB sheathing panels should be installed with 1/8" minimum gaps at panel edges or as specified by manufacturer to allow for expansion of the panels and fastened as per the building code. Ridging gaps less than 3/8" may also be deemed deficient if the sheathing was improperly installed.

Exception: Non-ventilated and ventilated nail-base insulation boards may experience ridging issues even when installed according to manufacturer's specifications. In some instances, additional ventilation and other moisture control modifications may be necessary and is the responsibility of the designer.

Builder Repair Responsibility

Builder to meet Performance Standard

5.10 Existing Plank Decking is Unsuitable for Installation of New Roof Covering when Re-roofing

Performance Standard

Wood plank decks wider than 6" should be overlaid with a minimum 15/32" thick plywood or oriented strand board (OSB) unless shingle manufacturer recommends greater. End joints of each adjacent piece of overlaid decking should be staggered and centered over the supporting structural members and fastened with minimum 8d ring shank nails spaced in a sufficient manner. In some instances, plank decks wider than 6" may be modified to create an acceptable deck, but only if manufacturer's specifications are followed and existing plank deck provides a suitable and continuous nailing surface.

Builder Repair Responsibility

Builder to meet Performance Standard

5.11 Any Other Flashings, Valleys or Roofing Leaks

Performance Standard

Flashings, valleys and roofing should not leak

Builder Repair Responsibility

Builder to repair to meet Performance Standard

5.12 Low-slope Roofs, Flashing or Perimeter Edge Leaks

Performance Standard

Low slope roofs, flashings and perimeter edges should not leak

Builder Repair Responsibility

Builder to repair to meet Performance Standards. Low-slope roofs shall be installed as per building code, manufacturer's specifications and industry standards.

5.13 Gutters and Downspouts Leak or Water Drains Behind Gutter

Performance Standard

Gutters and downspouts should not leak. It shall be the owner's responsibility to keep gutters and downspouts free of leaves and debris which could cause excessive overflow.

Gutter aprons shall be installed where necessary to prevent rainwater from running behind gutter.

Builder Repair Responsibility

Builder to repair so gutters and downspouts do not leak and water runs into gutter, not behind gutter.

5.14 Water Stands in Gutters or Water Overflows Gutters

Performance Standard

Whenever possible, gutters should be installed to accommodate proper drainage. In general, gutters should be sloped about 1 vertical inch for every 15 to 20 horizontal feet (1/16" per foot) so they drain properly. In some instances however, standing water may exist but should not be in excess of 1" depth in any gutter section after the rain ceases when unobstructed by debris. Gutters and downspouts shall be installed to industry standards including, but not limited to; roof slope, gutter size, downspout locations, size and quantity. Note: The current addition of the Sheet Metal and Air Conditioning Contractors National Association (SMACNA) Architectural Sheet Metal Manual should be consulted for gutter and downspout sizing and design.

Builder Repair Responsibility

Builder shall correct when water level is in excess of one inch (1") in depth, or when gutters and/or downspouts were improperly sized, installed and/or sloped.

5.15 Improper Installation of Copper, Aluminum and Similar Materials Used for Roofing Systems and Flashings

Performance Standard

When applicable, manufacturer's standards and installation requirements shall be followed. Installation of copper and similar products shall also follow standards and details as outlined in the Copper Development Association's (CDA) Copper in Architecture Manual and Copper & Copper Sense by Revere Copper Products.

Builder Repair Responsibility

Metal roofing systems shall be installed as per building code, manufacturer's instructions and industry standards.

SECTION 6 SIDING & TRIM STANDARDS

Background

There are numerous types of siding and trim products available. Wood products, composites, aluminum and vinyl are the most prevalent types being used. Each product is different and has its own inherent characteristics.

Common Defects or Problems:

6.1 Aluminum Siding / Trim Buckles or Ripples

Performance Standard

This problem may be inherent due to the shrinkage of the wood underneath. Siding should not be ¼" out of plane in an 8' length. This can be measured by laying an 8' straight edge at the highest point of the buckle. Highly visible buckles or ripples considered to be excessive by the Board are considered to be a defect.

Builder Repair Responsibility

Builder to repair to meet Performance Standard

6.2 Dents, Chips, or Scratches on the Aluminum / Vinyl Siding / Trim

Performance Standard

Dents, chips or scratches shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

Builder to repair within one year of initial occupancy or day of completion. It should be noted that the repaired area may not match in color and/or textures.

6.3 Siding Comes Loose

Performance Standard

Siding should not come loose

Builder Repair Responsibility

Builder to refasten

6.4 Caulking Cracks

Performance Standard

All types of caulk can dry out. Builder is to remove old caulk and replace with new caulk at cracked areas one time during first year where cracks exceed ¼". After the one repair, caulking becomes an owner maintenance responsibility. Caulking is an owner's maintenance responsibility after one repair.

Builder Repair Responsibility

Builder to repair to Performance Standard one time during the first year

6.5 Fading of Aluminum or Vinyl Siding

Performance Standard

Aluminum and vinyl siding will fade.

Builder Repair Responsibility

None, other than those included in the manufacturers' warranty

6.6 Wood Shrinks, Cracks, Twists, Bows and Knots Fall Out

Performance Standard

Due to the inherent characteristics of wood, all of the above may happen. Obvious defects shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

Builder will address knotholes one time and any gaps in excess of 1/4" shall be caulked. After this period it is the homeowner's maintenance responsibility.

6.7 Wood Siding Splits where Nail Penetrates Siding

Performance Standard

If noted in writing to builder within thirty days after completion of construction if a pre-occupancy inspection was not conducted. Builder to replace piece and stain/paint if staining/painting was builder's responsibility.

Builder Repair Responsibility

Builder to repair in accordance with Performance Standard

6.8 Lap on Wood Beveled Siding

Performance Standard

Lap shall be no less than 3/4" prior to shrinkage.

Builder Repair Responsibility

Repair to meet Performance Standard.

6.9 Delaminating of Veneer Siding

Performance Standard

All siding should be installed according to manufacturers and industry accepted standards. Delaminating shall be repaired or replaced. If owner is responsible for staining or painting of exterior surfaces and does not do it, builder is not responsible for delaminating.

Builder Repair Responsibility

Builder will repair or replace the siding as needed unless it is caused by the homeowner's neglect to maintain the siding properly. Repaired area may not match in color and/or texture. For surfaces requiring paint, the builder will paint/stain only the new materials if the builder was responsible for exterior painting or staining. The homeowner can expect that the newly painted surfaces may not match the original surface in color.

6.10 Paint Peels or Fades on Wood Siding

Performance Standard

Exterior paints or stains should not fail during the first year warranty. However, fading is normal and the degree is dependent on climatic conditions.

Builder Repair Responsibility

If the paint or stain peels and the builder is responsible for painting/staining, the builder will properly prepare and refinish the affected areas, matching color as close closely as possible. Where finish deterioration affects more than 25% of the area, the whole area will be refinished. The builder shall repaint/re-stain in accordance with standards of good workmanship, but no warranty will be extended on the newly repainted/re-stained surfaces.

6.11 Cracks in Exterior Stucco Wall Surfaces

Performance Standard

Cracks are not unusual in exterior stucco wall surfaces.

Builder Repair Responsibility

Builder will repair cracks exceeding 1/8" in width or where causing water damage and match color as close as possible. Builder is responsible for water intrusion for 12 months.

SECTION 7 WINDOW STANDARDS

Background

Some air infiltration around windows does occur, but should not be excessive. Homeowners are cautioned not to use razor blades when cleaning windows.

Common Defects or Problems:

7.1 Scratches, Cracks, or Breakage of Glass Not Caused by Vandalism

Performance Standard

Any defects with glazing shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

Builder is to repair only if noted in writing prior to occupancy.

7.2 Holes in Screens Not Caused by Vandalism

Performance Standard

Any identified damages to screens shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

Builder to repair only if noted in writing prior to occupancy.

7.3 Window Check Rails are Not Even or Flush

Performance Standard

Acceptable tolerance is 3/16".

Builder Repair Responsibility

Builder to correct

7.4 Windows are Out of Square or Out of Plumb

Performance Standard

Windows must operate with reasonable ease as designed.

Builder Repair Responsibility

Builder to repair to be easily operable

7.5 Windows Do Not Operate Properly

Performance Standard

Windows shall operate with reasonable ease as designed.

Builder Repair Responsibility

Builder to correct as required.

7.6 Air Infiltration Around Doors and Windows

Performance Standard

Drafts around the doors and windows are cold spot sources. Proper weather-stripping and insulating around these areas can minimize air passage. However, under certain temperature and wind conditions, some infiltration will be observed by the homeowner.

Builder Repair Responsibility

The builder is to adjust poorly fitted doors, windows, and weather-stripping to eliminate drafts as much as reasonable possible.

7.7 Moisture Condensation on Windows

Performance Standard

Moisture condenses on the window since it is the coldest object in any given room with the glass having a much higher rate of heat transmission and, hence, being the colder surface during the normal heating season. Moisture condensation on windows is an indication of either too much moisture in the room, or poor circulation of the moisture that is present. The owner can minimize this condition by merely opening the window to permit the excess moisture to escape or by installing a dehumidifying system if the conditions persist. It should be noted that in homes with humidification equipment, the formation of moisture on the windows is an indication that the humidifying equipment is set too high and producing too much moisture.

Builder Repair Responsibility

None, except to explain to the owner more thoroughly how this condition is caused and to assist the homeowner in correcting the condition

**SECTION 8
SKYLIGHT STANDARDS**

Common Defects or Problems:

8.1 Condensation on Skylights

Performance Standard

All skylights can develop condensation due to high humidity levels.

Builder Repair Responsibility

The builder is not responsible for humidity levels in the home. Bathroom ventilating fans should always be used or a window opened to reduce humidity levels.

8.2 Leaks Around Skylights

Performance Standard

Skylights should not leak.

Builder Repair Responsibility

Builder to repair so as to eliminate any leaks around skylights

8.3 Scratches, Cracks, or Breakage of Glass to Skylight Not Caused by Vandalism

Performance Standard

Any defects with glazing shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

Builder to repair only if noted in writing prior to occupancy or at final inspection

8.4 Discoloration on Plastic Skylight Windows

Performance Standard

This condition is inherent in the product

Builder Repair Responsibility

None

SECTION 9 CAULKING & WEATHER-STRIPPING STANDARDS

Common Defects or Problems:

Background

Weather stripping of doors and windows helps keep the home properly heated or cooled. Metal stripping should be free of dents and loose sections, and plastic or rubber stripping should be glued tightly. The junction between windows, doors and exterior wall material (i.e. siding, brick) will need to be caulked to minimize air infiltration. Caulking will need to be maintained by the homeowner throughout the life of the home. It should be noted that some air infiltration is normal during high winds.

9.1 Caulking Cracks Exceed 1/8"

Performance Standard

All types of caulking material will dry out. Builder to remove old caulk and replace with new caulk at cracked areas one time during the first year. After the one repair, caulking becomes an owner maintenance responsibility.

Builder Repair Responsibility

Builder to repair to Performance Standard one time during the first year

9.2 Caulking is Missing

Performance Standard

Builder is responsible to caulk all wood, wood to masonry, aluminum to wood and aluminum to masonry to acceptable industry standards.

Builder Repair Responsibility

Repair to meet performance standard

9.3 Air Infiltration around Doors and Windows

Performance Standard

Doors and windows are cold spot sources and some infiltration of air must be expected. Proper weather stripping and insulating around these areas can minimize air passage. However, depending on the type of window (i.e. double hung and sliding windows will have more air infiltration than casement or stationary windows) and under certain temperature and wind conditions, some infiltration may be observed by the homeowner.

Builder Repair Responsibility

Builder to inspect and adjust poorly fitted weather stripping. If draft comes around casings, builder to make sure insulation is in place around window wherever possible.

SECTION 10 ELECTRICAL STANDARDS

Background

Electrical system installations shall be performed by licensed electrical contractors and in accordance with state and national electrical codes. The electrical code dictates safety requirements predominantly to prevent fires and minimize the chance of personal injury. The builder cannot be responsible for what an owner plugs into an electrical outlet. Builder is also not responsible for what an owner has added to the electrical system following the completion of the structure.

Common Defects or Problems:

10.1 Outlets and Switches Do Not Work

Performance Standard

All outlets and switches must be operative.

Builder Repair Responsibility

Repair or replace wiring or replace defective outlets and switches to make units work properly.

10.2 Lights and Fans Do Not Work

Performance Standard

Wiring to fixtures must be operative

Builder Repair Responsibility

Builder to repair defective wiring to lights and fans. If it is found that the fixture is inoperative, it would fall under a manufacturer's warranty. If the fixture was builder supplied, the builder would be responsible for the service call. If the fixture was owner supplied, the owner would pay the service call.

10.3 Lights Dim or Flicker in Parts of Building

Performance Standard

Lights may dim or flicker during starting of some motor driven equipment

Builder Repair Responsibility

Check wiring for installation per standards of the State Electrical Code. If flickering/dimming does not occur when motor driven equipment is turned off, the owner should notify the builder to check if there are any potential deficiencies with the wiring. If nothing is found, the owner should contact the electric power company for possible defects in the supply source.

10.4 Lights Dim or Flicker in Entire Building

Performance Standard

Lights should not flicker throughout entire building at one time

Builder Repair Responsibility

Builder should first have a licensed electrical contractor check internal wiring as necessary. If internal wiring is proper, owner should then notify the electric power company for possible defects in the supply source

10.5 Circuit Breakers Trip Out

Performance Standard

Circuit breakers should not disengage under normal usage except in cases where there may be an overload of portable appliances. (See #6 re: GFI circuits)

Builder Repair Responsibility

If it is determined that there is not an overload of portable appliances, builder is to repair or replace breaker(s)

10.6 Ground Fault Interrupter (GFI) Circuit Trips Frequently

Performance Standard

Ground fault interrupters are sensitive safety devices installed into the electrical system to provide protection against electrical shock. These sensitive devices can be tripped very easily.

Builder Repair Responsibility

Builder shall install ground fault interrupters in accordance with the approved electrical code. Tripping is to be expected and is not covered, unless due to a construction or product defect. If product is found to be defective, it shall be replaced by the builder.

10.7 Fluorescent Lights Hum

Performance Standard

Some fluorescent ballasts will hum

Builder Repair Responsibility

Excessive hum must be checked by an electrician

10.8 Door Bells / Chimes Do Not Work

Performance Standard

Door bells/chimes carry a one-year warranty and should operate

Builder Repair Responsibility

Builder to repair or replace if door bell/chimes supplied by builder. Owner is responsible if owner supplied. If the fixture was builder supplied, the builder would be responsible for the service call. If the fixture was owner supplied, the owner would pay the service call.

10.9 Drafts from Electrical Outlets

Performance Standard

Electrical junction boxes on exterior walls may produce airflow whereby the cold air can be drawn through the outlet into a room

Builder Repair Responsibility

None -Owner can place foam type insulation behind cover plate to cut down reduce the infiltration

10.10 Water Leaks into Basement at Builder Installed Conduits Going Through Walls

Performance Standard

Water leaks into basement should not occur at conduits assuming owner has properly graded around foundation

Builder Repair Responsibility

Builder to repair, providing grading is not at fault

**SECTION 11
PLUMBING STANDARDS**

Background

Plumbing system installation is performed by licensed contractors in accordance with detailed plumbing code requirements. These code requirements were established primarily for individual and public health reasons.

Common Defects or Problems:

11.1 Leakage of Any Kind from Piping

Performance Standard

No leaks of any kind should exist in any soil, waste, vent or water pipe. Condensation on pipes or sweating of fixtures does not constitute a leak.

Builder Repair Responsibility

Builder shall make necessary repairs to eliminate leakage

11.2 Faucets or Valves Leak

Performance Standard

No valve or faucet should leak

Builder Repair Responsibility

Builder shall repair or replace the leaking faucet or valve. Washer or cartridge replacement is a homeowner's responsibility after the first year.

11.3 Water Pipe Banging / Water Hammer

Performance Standard

There can be some instances when the electric valves on appliances or single control valves are shut off fast, which can cause some banging. All noises due to water flow and pipe expansion cannot be removed, however excessive hammers shall be corrected.

Builder Repair Responsibility

Builder is responsible to have pipes fastened properly and bleed lines where excessive water hammers are present.

11.4 Fixtures Do Not Hold Water

Performance Standard

Stoppers on fixtures should retain water for a sufficient length of time to accomplish the fixture's intended use

Builder Repair Responsibility

Builder to correct until fixture holds water to meet Performance Standard

11.5 Cracking, Scratches or Chipping of Porcelain, Fiberglass Surfaces or Faucets

Performance Standard

Chips, cracks and scratches on surfaces of bathtubs, kitchen sinks and faucets can occur when surfaces are hit with sharp or heavy objects. Any defects identified shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

Builder shall repair or replace any fixture or fitting which is outside acceptable standards as defined by the manufacturer. Builder will not be responsible for repairs unless damage has been reported to builder prior to occupancy.

11.6 Stopped-up Sewers, Fixtures, and Drains

Performance Standard

Sewers, fixtures, and drains should operate properly to accomplish their intended function

Builder Repair Responsibility

Builder will not be responsible for sewers, fixtures, and drains, which are clogged through natural causes or the homeowner's negligence. If a problem occurs, the homeowner should consult builder for a proper course of action. Where defective construction is shown to be the cause, builder will assume the cost of the repair where homeowner negligence is shown to be the cause, the homeowner shall assume all repair costs.

11.7 Waste Disposal Unit Does Not Operate Properly

Performance Standard

Disposal unit must accomplish its intended function

Builder Repair Responsibility

Builder will repair any defective fixture or fitting which does not meet acceptable standards as defined by the manufacturer, unless caused by homeowner negligence.

11.8 Sump Pump Does Not Operate

Performance Standard

Sump pumps should reasonably be expected to perform for a one-year period satisfactorily, unless unusual conditions such as underground springs or high water tables are encountered. Owner is responsible for maintaining a proper grade and downspout extensions should be used to keep water from pooling near foundation.

Builder Repair Responsibility

Builder shall repair or replace malfunctioning sump pump, except under unusual conditions.

11.9 Inadequate Flushing of Toilets

Performance Standard

It is not unusual for a toilet to be flushed twice due to energy conservation fixtures

Builder Repair Responsibility

None, unless it is a manufacturer's defect or plumbing clog which is the cause

11.10 Plumbing Pipes Freeze and or Burst

Performance Standard

Drain, waste, vent, and water pipes shall be adequately protected as required by applicable codes, during normally anticipated cold weather, and as defined in accordance with ASHRAE design temperatures, to prevent freezing.

Builder Repair Responsibility

Builder will correct situations not meeting the code. It is the homeowner's responsibility to drain or otherwise protect lines and exterior faucets and hose bibs (even if they have an anti-siphon valve attached) exposed to freezing temperatures.

11.11 Condensation (sweating) of Pipes

Performance Standard

Condensation (sweating) of pipes and fixtures is normal and may occur most often in well water systems due to the extreme cold temperature (45-50 degree of water) of well water and humid basements.

Builder Repair Responsibility

None, unless the pipe or fixture is leaking. A dehumidifier and or pipe and tank insulation can be added by the owner to reduce condensation.

11.12 Defective Appliance or Fixtures Supplied by Owner

Performance Standard

Any appliances or fixtures supplied by the owner will not be warranted for leakage, etc. by the builder. There may be some instances where a plumber will not install an owner's fixtures if the fittings are not proper.

Builder Repair Responsibility

None

11.13 Water System Fails to Deliver Sufficient Volume / Pressure of Water

Performance Standard

The water supply system whether municipal or private is the responsibility of the builder unless contracted differently

Builder Repair Responsibility

Builder will take necessary actions to correct situations not meeting the code

SECTION 12 HEATING & COOLING SHEET METAL STANDARDS

Background

The heating and cooling systems are specified by the building code as well as ASHRAE standards, with the equipment selection (size and capacity) being dependent upon the size of the home, outside design temperatures, and anticipated heat loss due to the home design. It should be noted that temperatures in the home may vary due to wind direction, size and location of windows and doors, etc. Maintenance and cleaning of the heating and cooling systems is the homeowner's responsibility.

Common Defects or Problems:

12.1 Noisy Ductwork

Performance Standard

When metal is heated it expands and when cooled it contracts. The result is "ticking" or "crackling" which is generally to be expected and shall be considered acceptable.

Builder Repair Responsibility

Installation to comply with codes

12.2 Oil Canning of Ductwork

Performance Standard

The stiffening of the ductwork and the gauge of the metal used shall be such that ducts do not "oilcan". The booming noise caused by "oil canning" is not acceptable.

Builder Repair Responsibility

Builder will correct to eliminate this sound

12.3 Furnace Not Placed as Per Plan

Performance Standard

Due to heating system design, venting requirements and applicable codes, the furnace location is to be determined by the heating contractor.

Builder Repair Responsibility

None

12.4 Inadequate Heating

Performance Standard

Heating system shall be capable of producing an inside temperature of 70 degrees, as measured in the center of each room at a height of 5 feet above the floor, under local outdoor winter design conditions of -10 degrees specified in ASHRAE handbook. Federal, state, or local energy codes shall supersede this standard where such codes have been locally adopted.

Builder Repair Responsibility

Builder will correct or modify the heating system to provide the required temperatures. However, the homeowner shall be responsible for balancing dampers, registers and other minor adjustments. Builder shall not be responsible when installation follows guidelines

of special rate programs offered by utility companies if utility standards are lower than manufacturers' recommendations.

12.5 Inadequate Cooling

Performance Standard

Where air-conditioning is provided, the cooling system shall be capable of maintaining a temperature of 78 degrees, as measured in the center of each room at a height of 5 feet above the floor, under local outdoor summer design conditions as specified in ASHRAE handbook. In the case of outside temperatures exceeding 95 degrees, a differential of 15 degrees from the outside temperature will be maintained. Where there is excessive glass, this may not be attainable. Owner should be advised on the use of shading in such cases. Federal, state, or local energy codes shall supersede this standard where such codes have been locally adopted.

Builder Repair Responsibility

Builder will correct or modify the system to meet temperature conditions in accordance with specifications. Builder shall not be responsible for changes when installation follows guidelines of special rate programs offered by utility companies if utility standards are lower than manufacturer's recommendations.

12.6 Temperature Within Dwelling is Different than Temperature Set on the Thermostat

Performance Standard

If the thermostat is properly calibrated according to equipment specs, temperature should not differ more than 4 degrees

Builder Repair Responsibility

Builder is to repair/replace thermostat and/or associated equipment if there is a difference of more than 4 degrees

12.7 Kitchen or Hood Fan Lets Cold Air into Home

Performance Standard

All exhaust fans should have dampers, but drafts may develop during extreme cold or windy weather. Because code requires boring through the outside wall, there also may be some condensation.

Builder Repair Responsibility

None if exhaust components have been properly installed. Owner should check to make sure damper operates and notify builder to repair if it does not operate with-in the first year.

12.8 Moisture Runs Back in at Bath Vent Fan

Performance Standard

Venting of fan shall meet current building codes and should not allow the intrusion of moisture back into the bathroom

Builder Repair Responsibility

Repair/replace to perform as designed

12.9 Furnace is Noisy

Performance Standard

New furnaces are noisier due to design and blower size

Builder Repair Responsibility

Builder to have manufacturer's representative determine if noise is excessive

12.10 Condensation Lines Clog Up

Performance Standard

Condensation lines may clog eventually under normal use and conditions. This is a homeowner maintenance item. Builder shall provide unobstructed condensation lines at time of first occupancy or final walk through inspection.

Builder Repair Responsibility

None if installed properly

12.11 Excessive Humidity Within the Dwelling

Performance Standard

See Moisture Standards.

12.12 Settling of the Air Conditioning Condensing Unit Base / Slab

Performance Standard

Condensing unit base/slab shall be installed on a properly prepared level surface

Builder Repair Responsibility

Builder shall level within the first year. Owner is required to maintain a proper slope and fill in dirt underneath slab following the first year

SECTION 13 INSULATION STANDARDS

Background

Insulating is the process by which a thermal resistant material is installed at the perimeter or outer envelope of the structure to act as a barrier to create a resistance to heat flow. This produces a more controlled interior comfort climate and conserves energy. The primary characteristic that is desired in an insulating material is the ability to trap a gas to increase the resistance to heat flow. Physically, the efficiency of the insulating material increases as either the bulk of the air entrapped is increased or the movement of the gas is decreased within a given volume of insulating material.

The measurement of insulating effectiveness is called “resistance to heat flow” and is expressed as “R Value”. Each manufacturer is required to label [their] materials with its resistance to heat flow at 75 degrees mean temperature (R Value). R Value is a number rating system. As R increases, the overall effectiveness of the insulating material increases. Caution – Insulation may not cover an entire surface. Its R Value must be averaged with other assembly materials to give a true total average R value. Minimum R values are established by the State Energy Code.

The commonly used fibrous insulating materials are mineral wool, fiberglass and cellulose. These materials are selected for their large ratio of surface area to mass of the material in order to better entrap air. The normal form of the insulating material is either the blown loose material, as is most often used in the ceiling, or the batt form. Other forms are rigid materials such as polyurethane or polystyrene, which are usually supplied in panel form or are sprayed in their application.

Air infiltration can be further minimized by the installation of weather-stripping and caulking, both which require owner maintenance throughout the life of the home. Some infiltration will occur under certain temperature and wind conditions. The system of electric boxes and wiring on exterior walls produces an air flow passage whereby the cold or outside air can be drawn through the outlet into the room under most heating conditions, since the outside of the home is at a higher pressure than the inside.

Also, venting for fans will produce some air flowage. With acceptable building practices, this situation is virtually unpreventable, as are certain other situations resulting from many openings that do not exist in the home under normal construction.

Moisture in insulation causes it to lose its insulating value. Therefore, vapor barriers are put on the inside to keep moisture from entering into the walls and ceilings. It is also important to properly vent the attic to create airflow. This can be accomplished with roof vents, gable louvers, ridge vents, soffit vents or combinations of these. A vaulted (cathedral) ceiling area, where there is no attic, also requires proper ventilation per code. You may wish to refer to the Moisture Standard section for additional information.

Common Defects or Problems:

13.1 Pipes Freeze

Performance Standard

Drain, waste and vent, and water pipes shall be adequately protected as required by applicable code during normally anticipated cold weather and as defined in accordance with ASHRAE design temperatures to prevent freezing.

Builder Repair Responsibility

The builder will correct situations not meeting the code. It is the homeowner's responsibility to drain or otherwise protect lines and exterior faucets and hose bibs (even if they have an anti-siphon valve attached) exposed to freezing temperatures.

13.2 Moisture condensates on Windows

Performance Standard

Moisture condenses on the window since it is the coldest object in any given room. with The glass having has a much higher rate of heat transmission and hence, being the colder surface during the normal heating season. Moisture condensation on windows is an indication of either too much moisture in the room, or poor circulation of the moisture that is present. The owner can minimize this condition by merely opening a window to permit the excess moisture to escape or by installing a dehumidifying system if the condition persists. It should be noted that in homes with humidification equipment, the formation of moisture on the windows is an indication that the humidifying equipment is set too high and producing too much moisture. It is also recommended that screens be removed from casement windows during the heating season.

Builder Repair Responsibility

None, except to explain to the owner more thoroughly how this condition is caused.

13.3 Drafts at Baseboards

Performance Standard

The juncture of the floor and wall system is conducive to openings so a certain amount of draft is permissible, although it should be minimized.

Builder Repair Responsibility

Inspect the areas to assure the air leakage is at a minimum. If excessive drafts are discovered, builder to make sure proper insulation and/or caulking is present.

13.4 Drafts from Electric Outlets

Performance Standard

Electrical junction boxes on exterior walls may produce airflow whereby the cold air can be drawn through the outlet into a room, although it should be minimized.

Builder Repair Responsibility

Inspect the areas to assure the air leakage is at a minimum. If excessive drafts are discovered, builder to make sure proper insulation and/or caulking is present.

13.5 Drafts from Recessed Lights, Ceiling Fans, Vent Fans

Performance Standard

Drafts in these areas are normal

Builder Repair Responsibility

None, as long as there is proper insulation around the unit

13.6 Drafts around Doors and Windows

Performance Standard

Doors and windows are cold spot sources and some infiltration of air may be expected. Proper weather-stripping and insulating around these areas can minimize air passage. However, depending on the type of window (i.e. double hung and sliding windows will have more air infiltration than casement or stationary windows) and under certain temperature and wind conditions, some infiltration may be observed by the homeowner.

Builder Repair Responsibility

Builder to inspect and adjust poorly fitted weather-stripping. If the draft comes around casings, builder is to make sure insulation is in place around window wherever possible.

13.7 Blown-in Insulation in Attic Displaces

Performance Standard

This may occur due to wind and air movement in the attic

Builder Repair Responsibility

During the first year, builder to redistribute insulation to manufacturer's specifications

13.8 Blown-in Insulation in Attic Settles

Performance Standard

During the first year insulation should not settle. However, after time settling may occur.

Builder Repair Responsibility

Builder to correct during first year

13.9 Inadequate Insulation

Performance Standard

The builder must provide the R rating(s) as specified by Code or contract, whichever is more stringent.

Builder Repair Responsibility

Builder to correct to code/contract

13.10 Gaps at the Top or Bottom of Batten Insulation

Performance Standard

There should be no gaps around batten insulation

Builder Repair Responsibility

Builder to insulate or foam to seal any spaces around batten insulation

SECTION 14 FIREPLACE STANDARDS

Background

Fireplaces fall into two categories; the first being “full masonry.” This type of fireplace is constructed with a masonry flue, exterior veneer and interior firebox and is constructed on-site. The second is “prefabricated”, having a metal pipe chimney and a manufactured metal firebox prefabricated off-site and installed into a prepared opening.

Common Defects or Problems:

14.1 Fireplace or Chimney Does Not Draw Properly

Performance Standard

A properly designed and constructed fireplace and chimney shall function properly. It is normal to expect that high winds can cause temporary negative draft situations. Similar negative draft situations can also be caused by obstructions such as large branches of trees too close to the chimney.

Builder Repair Responsibility

Builder will determine the cause of malfunction and correct, if the problem is one of design or construction of the fireplace.

14.2 Firebox Paint Changed by Fire

Performance Standard

Heat from fires can alter finish

Builder Repair Responsibility

None

14.3 Cracked Firebrick and Mortar Joints in Firepot

Performance Standard

Expansion and contraction will cause cracking. Cracks in excess of 1/8” are considered to be a defect.

Builder Repair Responsibility

Builder will tuck-point cracks in excess of 1/8”.

14.4 Rust on the Exterior of the Fireplace or Rust on the Damper

Performance Standard

As rust can form from condensation or moisture within a home, the formation of rust should be expected with ferrous materials. The owner should use a rust-removing product to remove rust.

Builder Repair Responsibility

None

14.5 Cracks in Chimney or Fireplace Caps

Performance Standard

Chimney and fireplace caps should be checked periodically by the owners for hairline cracks in the concrete and brick, and especially next to the flue. These cracks are caused by shrinkage and severe weather conditions and should be caulked with an elastic type caulking compound or tuck-pointed with mortar or cement. Failure to do this could result in moisture getting into the chimney, freezing and cracking the flue material or the face of the brick or stone.

Builder Repair Responsibility

None, unless crack exceeds 1/8" in width, then builder will tuck-point any cracks.

14.6 Fireplace Fans are Noisy

Performance Standard

Fans will make some noise due to the location of their installation but should not be excessively noisy. Fireplace fans are covered by a one-year manufacturer's warranty. Noise level is not to exceed those as established by manufacturer.

Builder Repair Responsibility

Builder to inspect and repair if fan is touching any party of the fireplace

14.7 Cracks in Mortar Joints of Brick or Other Masonry Walls or Veneers

Performance Standard

Small hairline cracks due to shrinkage are common in mortar joints in masonry construction. Cracks greater than 1/8" in width are considered excessive.

Builder Repair Responsibility

Builder will repair cracks in excess of Performance Standard by tuck-pointing or patching. These repairs shall be made within at the end of the first year of the warranty period. Owner should be aware that some variation between old and new mortar color may occur.

14.8 Chimney Separates from Structure to Which it is Attached

Performance Standard

Newly built fireplaces will often incur slight amounts of separation. Separation shall not exceed 1/2" from the main structure in any 10' vertical measurement.

Builder Repair Responsibility

Builder will determine the cause of separation and correct if standard is not met.

FIREPLACES (PRE-FABRICATED)

14.9 Smoking due to Insufficient Chimney Draft

(1) Intermittent (2) Continuous

Performance Standard

A properly installed fireplace and chimney should function properly. Wind conditions, atmospheric pressure, and humidity can cause temporary negative draft (situation 1); Environmental obstructions such as large nearby trees, buildings, or hills can cause continuous negative draft (situation 2)

Builder Repair Responsibility

(1) Intermittent smoking: None

(2) Continuous smoking: Contractor will arrange for a determination of a cause of the condition and correct where possible only during the one (1) year period

14.10 Cracked or Broken Refractory (firebrick) Panels

Performance Standard

Refractory bricks and panels should remain intact for the duration of the product's warranty period.

Builder Repair Responsibility

The contractor will replace damaged refractory panels only during the one (1) year warranty period. If refractory panels crack or break after the initial burning, the homeowner should contact the manufacturer for warranty information on the specific model.

SECTION 15 GARAGE DOOR STANDARDS

Background

The surface of hardboard used on garage doors is ideal for field applied coatings, since hardboard does not have any knots, grain raise, or other defects that typically shorten the coating's life. Hardboard used on garage doors is made from wood. As such, it must be properly coated initially and maintained if satisfactory performance is to be achieved from the hardboard door as well as the field applied coating.

If the homeowner does his own painting and staining, for the warranty to be effective, paint must be applied to inside and outside surfaces and on all edges, immediately after installation.

An inherent characteristic of flush doors is the possibility of bowing (either inward or outward). This is not considered a defect. Proper painting of the door, plus the use of paint other than a dark color, will minimize this possibility. (Dark paint does not deflect the heat of the sun as well as lighter paints do).

Common Defects or Problems:

15.1 Bottom of Overhead Doors do not Fit to the Floor

Performance Standard

Door weather-stripping should fit flush to the floor

Builder Repair Responsibility

Builder to scribe the bottom or adjust the door to conform to the level of the concrete so weather-stripping on bottom of door affects a weather tight seal.

15.2 Garage Doors Allow Entrance of Snow or Water

Performance Standard

Garage doors shall be installed as recommended by the manufacturer. Some entrance of the elements can be expected under severe weather conditions, if the door is not weather stripped

Builder Repair Responsibility

Builder will adjust or correct garage doors to meet manufacturers' recommendations. If weather stripped, door must seal out the elements.

15.3 Garage Doors do not Fit Tightly at the Sides and Top

Performance Standard

- A. If it is not a weather-stripped door, there may be some small gaps
- B. If the door is weather-stripped, the door should fit tightly

Builder Repair Responsibility

- A. If the door is not weather-stripped; the builder has no repair responsibility
- B. If the door is weather-stripped; the builder is to repair

15.4 Garage Doors Fail to Operate under Normal Use

Performance Standard

Garage doors shall operate properly

Builder Repair Responsibility

Builder will correct or adjust garage doors as required, except where the cause is determined to result from homeowner abuse or negligence

15.5 Garage Doors Sag

Performance Standard

Due to the excessive weight of a panel door, some sagging may occur

Builder Repair Responsibility

None, as long as it is within manufacturer's tolerance

15.6 Splits in door Panels

Performance Standard

Split(s) in panels shall not allow light to be visible through the door

Builder Repair Responsibility

Builder will, if light is visible, fill split(s) and match paint or stain as closely as possible if they did painting originally. This will be done only one time in the warranty period, preferably at the end of the first year.

SECTION 16 DRYWALL & PLASTER STANDARDS

Background

In reviewing drywall and plaster problems which occur during the first year of warranty, it is necessary to include some explanatory material on the nature of the material and its performance during and after the initial stages of construction.

Drywall is a relatively inflexible gypsum material, which is applied to the interior surfaces. Drywall and plaster are applied in sheets, which are nailed or screwed to the stud or joists for application. The sheets are then taped and the entire surface is sprayed and textured to produce a finished surface. In plaster, the final coats are trowelled on.

Because the drywall or plaster has been placed on lumber surfaces which are subject to shrinking and warping and which are not perfectly level and plumb, problems may occur through stress and strain placed on drywall during the drying of the lumber which is inherent in the construction of a home.

In evaluating the need for drywall and plaster repairs, the general rule to be applied is; if the defect is readily noticed by visual inspection, it should be repaired. However, due to the initial shrinkage problem, which exists with the new home, it is impossible to correct each individual defect as it occurs, and for that matter is essentially useless to do so. The entire house will tend to stabilize itself near the end of the warranty period, and one repair should be made when necessary, preferably within the first year near the end of the 12th month after occupancy or completion of construction upon request by the homeowner. Repairs will be made no more than one time during the warranty period. All repairs should be made to within industry standards. Any reoccurrence beyond the warranty period becomes the homeowner's maintenance item.

Since drywall and plaster are finish materials, repairs will be slightly visible due to a color or texture mismatch after they have been made. The mismatch will be even more visible when a special textured finish has been employed. Repairs do not require repainting when they are applied on unpainted surfaces such as unpainted ceilings or when the builder did not contract for the painting. The builder will attempt to match the repair as closely as possible but the exact color match of the unpainted surface is impossible to achieve. Where the repair has been made on a painted surface, the builder will not be responsible for paint touch-up, provided color samples are left by the painter at the home, otherwise the builder shall be responsible to touch up the repair, but the owner should be cautioned that the color match will not be perfect. Should the defect(s) affect more than 25% of the total area of any one wall, the entire wall will be repaired and repainted (at the discretion of the Board).

Common Defects or Problems:

16.1 Visual Defects caused by Normal Shrinkage or Nail Pops, Cracks, Seam Lines, Ridging or Cracked Corner Beads

Performance Standard

Any of the above defects which can be readily determined by visual inspection (without lighting the defect from one direction) shall be repaired by the builder except where normal repainting will cover the defect as in the case of a hairline crack. Cracks not exceeding 1/8

inch in width are common in gypsum wallboard installations and are considered acceptable. Noticeable cracks exceeding 1/8" are considered to be a deficiency.

Builder Repair Responsibility

Repair to original finish as closely as possible. Repairs will be made no more than one time during the first year. Should the defect(s) affect more than 25% of the total area of any one wall, the entire wall will be repaired and repainted (at the discretion of the Board).

16.2 Defects caused by Workmanship During Installation such as Blisters in the Tape, Excess Compound in Joints, Nail Pops or Trowelling Marks

Performance Standard

Defects, which can be readily observed by visual inspection (without lighting the defect from one direction), are beyond the standard of industry except where normal repainting will cover in the defect. Exclusion: Depressions or slight mounds at nail heads are not considered deficiencies.

Builder Repair Responsibility

Correct such defects as in (1) above

16.3 Photographing of Mudded Areas (tape lines, nails, corners)

Performance Standard

The paint on the wallboard surface has a different texture than on the taped and mudded areas

Builder Repair Responsibility

Photographing is not common, but when it is readily visible (without lighting the defect from one direction), it is the builder's obligation to repair.

16.4 Uneven Texturing

Performance Standard

As textures are composed of natural materials, there will be some variation. Blemishes should not be visually apparent.

Builder Repair Responsibility

Repair finish to be uniform to standard

16.5 Separation at Ceiling due to Trusses Lifting

Performance Standard

Truss lift occurs during the heating season and normally returns back down in the summer months. Builder is not responsible for inadvertent cutting of tape where wallpapering may have been done by the homeowner.

Builder Repair Responsibility

This is to be corrected only during the summer months after the first heating season. If the problem reoccurs in the next heating season and gap exceeds 5/8" then additional methods must be taken to correct the problem (i.e. the use of a molding at the ceiling).

16.6 Uneven Angular Joints or Corners

Performance Standard

Defects, which can be readily determined by visual inspection, are to be repaired by builder only prior to decorating. The use of a rounded corner is acceptable at angles.

Builder Repair Responsibility

Builder to repair to be visually acceptable

16.7 Texturing on Repairs is Uneven

Performance Standard

Since drywall and plaster are finish materials, repairs will be slightly visible due to a color or texture mismatch after they have been made.

Builder Repair Responsibility

Every attempt should be made to uniformly match the texture.

SECTION 17 CARPENTRY STANDARDS - FINISH

(Finished Carpentry, Cabinetry, Millwork and Countertops)

Background

Wood and wood-like products are the basic materials used in finished carpentry. Wood is a natural product with individual grain variations in each species of wood. The matching of grain is not a standard procedure and may possibly be accomplished only as a specific contractual agreement between the owner and builder and with the careful selection of matching panels by the supplier. The variations in wood separate it from man-made products. One of the desirable characteristics of wood is the difference in each piece.

Over the past several years, a marked change has taken place in the area of finished carpentry, paneling and millwork. Considerably less of the labor is being done on the site. Almost all millwork, paneling, cabinetry, countertops and doors are purchased by the builder as a completed product and are warranted by the builder according to manufacturer's standards.

Scratches, chips, gouges or nicks should be noted by the owner at the time of the preoccupancy inspection. To maintain the beauty of the wood and wood products, wood should be cared for by the owner much like furniture. Builder should caution owner to only use products recommended by the manufacturers when cleaning and maintaining wood products and also in caring for countertops.

During the initial building stabilization period (first heating and cooling seasons), it is not unusual for doors to warp slightly or twist and alternately stick or not close. Warping, shrinking and swelling of wood and wood-like products can occur due to temperature and humidity changes.

If painting, varnishing and/or staining are to be done by the owner, it should be finished at the earliest possible opportunity. Their primary purpose is preservation, protecting the surfaces and edges from weather and moisture penetration. Owner should be made aware that all surfaces must be sealed on all six sides. If a door or drawer fails and if it was not sealed on all six sides and the owner did or contracted for his own staining, then the builder is not responsible to make the repair. Filling and sanding of minor imperfections, nail holes and splits are the responsibility of the painter. If the builder is responsible for the painting and/or staining, samples or names of the paint products should be left with the owner for minor touch-ups.

Common Defects or Problems:

17.1 Interior Doors, Closet Doors, Cabinet Doors, or Drawers Warp and Cannot be Closed or will not Stay Closed

Performance Standard

The owner should note that during the initial building stabilization period, it is not unusual for doors to warp or twist and alternately stick or not close as the home goes through a settling and drying period, especially over the first heating season. The builder is obligated only to make replacements after this initial stabilization period, since often the door straightens during this process. Doors **MUST** be sealed on all six sides by the person contractually responsible for painting/staining.

All interiors doors, closet doors, cabinet doors or drawers whose warping exceeds the National Woodwork Manufacturers Association Standards (1/4" in most cases) and where

the warp cannot be corrected by adjustment of either jambs, stops, and/or hinges and cabinet catches to properly latch after the initial stabilization period of the building, within the first year, shall be replaced by the builder.

Builder Repair Responsibility

Adjust upon request of the owner, one time only, preferably at the end of the warranty period, any doors and drawers that fail to operate properly. Replace any doors or drawers, which cannot be corrected to be within acceptable tolerance after stabilization. Refinish as necessary if staining was part of the builder's contract.

17.2 Garage to House Solid Core Door Warps

Performance Standard

Garage to house doors are more subject to weather conditions and thus these doors may warp, but will tend to come back to their original state. This can be a continual occurrence with seasonal changes.

Builder Repair Responsibility

If the door does not come back in summer to seal, builder to replace (provided door was sealed on all six sides if staining was owner's obligation). Refinish as necessary if staining was part of the builder's contract.

17.3 Warping or Non-closing of Exterior Doors (except storm doors)

Performance Standard

Because of the security provided by these doors, the doors must be adjusted or corrected as required.

Builder Repair Responsibility

Within the first year, if the security of the building is jeopardized, correct as to Performance Standards requested by the owner to maintain the security of the building. Replace any exterior doors whose permanent warping exceeds the standards referred to in item #1 after the stabilization period. Refinish as necessary if painting and staining was part of the builder's contract. If painting/staining is part of owner's contract they are cautioned to finish doors on all six surfaces at the earliest possible opportunity to prevent weather deterioration and warping of the doors and to maintain a warranty on the door.

17.4 Cabinet Doors do not Align Properly or there is a Gap Between Door and Cabinet Frame

Performance Standard

Space between doors where doors butt should not exceed 1/8". Top or bottom alignment should not exceed 1/16". Separation between the door and the frame should not exceed 1/4".

Builder Repair Responsibility

Builder to repair if any of the above conditions exceed acceptable tolerance

17.5 Loosening or Separation of Veneer on Doors and Cabinet Doors

Performance Standard

Veneer should not crack or separate during the first year's warranty provided the doors have been properly finished. If painting is to be done by the owner, they are cautioned to finish all six surfaces of the veneer doors at the earliest possible opportunity to prevent weathering deterioration of the door which can lead to delamination or warping.

Builder Repair Responsibility

Builder should repair or replace any doors where the veneer has separated or delaminated during the first year of occupancy. Door replacement due to delamination is the owner's responsibility if the owner has not promptly followed through on his responsibility to finish the door or has not finished all six sides of the doors. Builder to refinish only if painting or staining was part of the builder's contract.

17.6 Shrinking or Swelling of Paneled Doors, Panels in Cabinet Doors and/or Paneling

Performance Standard

Panels will, due to the nature of wood products, shrink and expand and may expose unpainted or unstained surfaces.

Builder Repair Responsibility

None

17.7 Panels or Door Graining and/or Colors do not Match

Performance Standard

Since wood is a natural product and the grain structure is unique for each piece of wood, the builder is only responsible for supplying the grades and types of lumber and millwork and paneling specified in the contract. Grain and color matching is not the industry standard.

Builder Repair Responsibility

None, unless matched lumber was specifically stated in the contract

17.8 Scratches on Glass in Doors

Performance Standard

Glass doors should be free of readily visible and significant scratches or imperfections.

Builder Repair Responsibility

Builder to repair if the conditions exist and are identified prior to occupancy or at the time of the pre-closing walk-through inspection.

17.9 Millwork Trim Graining or Colors do not Match

Performance Standard

See #7

Builder Repair Responsibility

See#7

17.10 Gaps in Miter Joints

Performance Standard

Gaps in miter joints should not exceed 1/16"

Builder Repair Responsibility

Builder should repair any gaps exceeding 1/16". If the owner is responsible for the staining/painting portion of the contract, the owner is responsible. If staining/painting was part of the builder's contract, builder must re-stain/re-paint, if necessary.

17.11 Gouges, Cracks, Nicks or Other Material or Workmanship Imperfections

Performance Standard

Nail pops, blisters and other such blemishes at the time the owner closes or takes occupancy of the home that are readily visible from a distance of six (6') under normal lighting conditions are unacceptable.

Builder Repair Responsibility

Builder to replace millwork components with the above listed defects where the defect cannot be easily corrected through the use of sanding or filling, so long as these items were noted prior to final walk-through inspection or occupancy. It should be noted that if the owner is responsible for the painting/staining portion of the contract, the finishing work becomes the owner's responsibility.

17.12 Splices of Millwork Material Within the Length of a Wall

Performance Standard

Millwork splicing is permissible, within reasonable tolerances as left to the discretion of the Board.

Builder Repair Responsibility

Builder to replace millwork identified as being deficient

17.13 Cabinets Separate from Wall or Loosen

Performance Standard

Provided the cabinet installation is secure, some shrinkage may occur which may appear to indicate a gap between the cabinets and their mounting surface. This gap shall not be more than a 1/4" and requires no correction. However, if larger and the cabinet is actually loose, the builder shall correct.

Builder Repair Responsibility

Correct any loose cabinetry from the mounting surface, except those due to shrinkage.

17.14 Countertops Separate from Wall

Performance Standard

Joints between countertops and adjacent surfaces are considered deficient and must be corrected

Builder Repair Responsibility

Builder to caulk gaps up to 1/8" in depth. Gaps in excess of 1/8" require additional action such as; removing countertops, re-scribing affected surfaces and re-installation, or other methods considered acceptable to the Board.

17.15 Seams in Laminate Countertops Rise

Performance Standard

Seams in laminates may occur over time. Owner should keep seams sealed to minimize water penetration.

Builder Repair Responsibility

None

17.16 Exposed Plastic Laminate Surfaces, Laminate Cabinetry and Molded Marble Crack, Chip, Delaminate or are Burned or Scratched.

Scratches, chips, gouges or nicks should be noted by the owner at the time of the preoccupancy inspection.

Performance Standard

There should be no imperfections in exposed plastic laminate surfaces at the time the owner takes occupancy of the home or at the final inspection walk-through. In some rare cases there may be some latent defects in laminates, which would require adjustments by the manufacturer. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

Correct defects noted if found to be deficient at occupancy inspection or at the final inspection walk through. Defects occurring after that time are the owner's responsibility for correction since these surfaces are subject to owner's damage.

SECTION 18 FLOORING FINISH STANDARDS

Background

Finished flooring work is subject to the same phenomena during construction of a home that applies to drywall and plaster, namely shrinking and warping of the surface to which it is applied, settling of the home, expansion and contraction of the subsurface to which it is applied with moisture and temperature variations. Most of the problems which occur affecting flooring are a result of these natural phenomena occurring during the stabilization of the home during the initial warranty period and are mirrored in the floor coverings.

Resilient flooring is manufactured and bought as a finished product, either in the form of squares or sheet goods, which is applied by the appropriate trade, predominantly with mastic directly over the surface prepared to accept it.

The following finished flooring standards are contained separately in this section:

1. Carpeting
2. Ceramic or Quarry Tile
3. Resilient Flooring
4. Wood Flooring
5. Engineered Flooring
6. Laminate Flooring

CARPETING STANDARDS

Background

Carpet installation may often be contracted by the owners or may be done by the builder as an allowance item. A standard carpet installation will use seaming techniques to join the material and these seams will be somewhat visible. Carpeting is subject to normal manufacturing tolerance and most particularly to lot variations affecting color, texture and pattern. From time to time, patterns are discontinued, which makes it impossible to exactly duplicate the material; hence, it is recommended that the owner save any scrap material from the carpet installation for any future repairs that may be required because of burns, spots, etc.

Common Defects or Problems:

18.1 Open Carpet Seams

Performance Standard

Carpet seams will show, however, visible gaps are not acceptable

Builder Repair Responsibility

Builder will correct any open gaps

18.2 Carpeting Becomes Loose, Seams Separate or Stretching Occurs

Performance Standard

Wall to wall carpeting, installed as the primary floor covering, when stretched and secured properly, shall not come up, become loose, or separate from its point of attachment.

Builder Repair Responsibility

Builder will re-stretch or re-secure carpeting as needed if original installation was performed by the builder.

18.3 Spots on Carpet, Minor Fading

Performance Standard

Exposure to light may cause spots on carpet and/or minor fading. Spots, if noted prior to occupancy or completion of construction, would be the builder's responsibility. Defects shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

None, unless noted prior to occupancy or completion of construction. Builder would then clean or repair.

CERAMIC AND QUARRY TILE STANDARDS

Background

Ceramic or quarry tile is also used as a finished flooring surface and in some counter and wall applications. Hard tile is supplied as a finished product and is subject to lot variations. The tiles may be attached to the subfloor, finish floor, or wall surface with mastic (glue) or directly set into a mud base (special concrete mix). After the tile is set, grout is applied to fill the joints. Grouting will be affected by the natural settling and shrinkage of the home. Re-grouting will be required by the homeowner as normal maintenance throughout the life of the home. With colored grout, it is virtually impossible to match colors should a repair of grout be desired.

Ceramic tile installation may be performed as an allowance item. Installation and tile costs may vary with tile size, shapes and patterns selected by the homeowner. In all cases of finished floor covering materials, the owner is advised to follow the manufacturer's suggested recommendations for maintenance and cleaning.

Narrow tipped or stiletto high heels will damage ceramic and quarry tile flooring and would not be the builder's responsibility for repair. Because of this and the wear and tear caused by normal use of the floor, no reasonable repair can be expected to perfectly restore the flooring to a new, unused condition.

Common Defects or Problems:

18.4 Cracks Appear in Grouting of Ceramic Tile Joints or at Junctions With Other Materials such as a Bathtub or Shower

Performance Standard

Cracks at the joints of ceramic tile are commonly due to the settling process, especially between the horizontal and vertical surfaces or the butting of dissimilar materials. As such, they require re-pointing.

Builder Repair Responsibility

Ceramic Tile should be re-pointing/ re-grouted when necessary, only once during the warranty period, preferably near the end of the warranty period. After one re-pointing/ re-grouting, it becomes an item of owner's maintenance.

18.5 Ceramic Tile Cracks or Becomes Un-cemented or Loose.

Performance Standard

Tile should not crack or become loose during the warranty period under normal wear. It should be noted that ceramic tile can crack if something is dropped on the floor and this type of cracking is not warranted.

Builder Repair Responsibility

Replace any cracked tiles and re-cement any loose tiles, unless the defects were caused by owner's negligence. (Owner is cautioned that there may be a color mismatch if no extra tiles are available).

18.6 Ceramic Tile Grout Discolors

Performance Standard

Normal efflorescence is a condition, which can be cleaned with a special solution or will disappear in time. Grout is porous and can be sealed by the homeowner to prevent dirt penetration.

Builder Repair Responsibility

None

18.7 Mildew Forms on Tile or Grout

Performance Standard

This is a homeowner's maintenance responsibility

Builder Repair Responsibility

None

18.8 Color Variations in Tile

Performance Standard

Color variations are inherent in all ceramic glazes fixed clay tile products.

Builder Repair Responsibility

None

18.9 Tile Style or Pattern No Longer Available When Repair Called For

Builder Repair Responsibility

Unless owner will accept a repair with as closely matching materials as is currently available or correction by some other means, builder should credit the owner 1 ½ times the cost to repair if the material were available. This would be 1 ½ times the minimum service charge, plus addition additional hourly charge and material cost estimate.

18.10 Floors Squeak

Performance Standard

Floor squeaks are common to new construction and a squeak-proof floor cannot be guaranteed. Isolated floor squeaks are not a deficiency. A large area of floor squeak which is noticeably loud is a deficiency.

Builder Repair Responsibility

Builder should try to minimize the floor squeaks and must correct if caused by a construction defect. It should be noted that second floor repair would be a surface nailing in carpeted areas and impossible in vinyl or ceramic areas other repairs or replacement may be required.

RESILIENT FLOORING STANDARDS

Background

Resilient flooring includes inlaid, roto-vinyl, seamless sheet vinyl, and resilient vinyl composition tile. All resilient flooring is subject to normal manufacturing tolerances and most particularly to dye lot variation affecting color, texture, and pattern. From time to time, patterns are taken off the market, which makes it impossible to exactly duplicate a material when none is available. The most common problem occurring when partial replacement is called for in repair is the inability to match closely in color due to variation from dye lot to dye lot. In the replacement or correction of resilient flooring, the owner must be prepared to accept a variation in dye lot, when the pattern is still in existence and is cautioned that a seam may show.

When a repair is made, the smallest possible area should be repaired. Although the builder will attempt to match colors as closely as possible, the owner should note that the wax or vinyl dressing build-up on the existing areas, light variations, atmospheric conditions and other chemical reactions will produce a color variation, even within the same dye lot. The owner can minimize this variation by removing any build-up and thoroughly cleaning the floor according to the flooring manufacturer's recommendations. Likewise, the color variations will become less noticeable with subsequent dressings and use of the floor.

The nature of resilient flooring makes possible permanent deformation of the surface when subjected to high loads which can be expected by furniture with improper floor protectors or no protectors at all. Manufacturer recommended protectors are a necessity to avoid this problem. The protectors must rest flat on the floor, not at an angle and the maximum surface load per square inch must not exceed 75lbs.

Narrow tipped or stiletto high heels will damage vinyl tile and all sheet vinyl flooring and would not be the builder's responsibility for repair. Because of this and the wear and tear caused by normal use of resilient flooring, no reasonable repair can be expected to restore perfectly the resilient flooring to a new, unused condition.

Resilient flooring is a manufactured product bought as a finished product, either in the form of squares or sheet goods, which is applied by the appropriate trade, predominantly with mastic directly over the surface prepared to accept it.

Common Defects or Problems:

18.11 Nail Pops Appear on the Surface of Resilient Flooring

Performance Standard

All nail pops should be repaired

Builder Repair Responsibility

Correct all nail pops which have not broken the surface of the goods by driving the nails back into place. Replace any areas where the nail pop has broken the surface. Replace sheet goods in the minimum area where the joint will not be readily noticeable where the nail pop broke the surface.

18.12 Seams or Ridges Appear in the Resilient Flooring due to Subfloor Irregularities

Performance Standard

In the natural settling and shrinking process, some mismatch of the subfloor may exist and mirror itself as ridges or depressions showing on the surface goods. This can be minimized by the customer in his selection of an embossed pattern or in a darker color. In particular, lighter solid colors and/or smooth vinyl surfaces mirror any minor variations of the sub-surfaces to which they are applied and emphasize this ridging. If the ridge or depression effect exceeds 1/8" and cannot be corrected from below, the resilient floor must be corrected. The ridge or depression measurements should be made by measuring the gap created when a 6" straight edge is centered on the defect and the gap is measured between the floor and the straight edge.

Builder Repair Responsibility

If ridge exceeds Performance Standard, builder to shall remove the sheet goods in the minimum area where the joint will not be readily visible when repaired, re-nail the subflooring, sand smooth and/or fill gap and replace the sheet goods. Owner should note that there may be a mismatch in materials due to time difference or dye lot variations. If the material is unavailable due to discontinuation, unless the owner will accept a repair with as closely matching materials as is currently available or correction by some other means, builder shall credit the owner 1 ½ times the cost to repair if the material were available. This would be 1 ½ times the minimum service charge, plus the additional hourly labor charge and material cost needed to make the repair.

18.13 Resilient Flooring Lifts, Bubbles, or Becomes Unglued

Performance Standard

Resilient flooring should not loosen during the normal warranty period unless caused by the owner's negligence or excessive use of water.

Builder Repair Responsibility

Providing edges are still intact, re-secure the material. If not, replace the minimum area as per standard #2.

18.14 Shrinkage Gaps Show in Resilient Flooring

Performance Standard

Gaps shall not exceed 1/16" in width in vinyl to vinyl joints. However, where dissimilar materials abut, a gap in excess of 1/8" is a deficiency.

Builder Repair Responsibility

Correct to meet Performance Standard

18.15 Flooring Discoloration

Performance Standard

Certain conditions and substances such as heat, oil, fertilizers, asphalt from driveways and driveway sealers with asphalt or coal tar base, salt or chemicals and some carpet dyes can cause permanent stains especially in traffic areas. The owners are also cautioned that the use of certain latex or rubber backed throw rugs can cause discoloration of the resilient flooring due to a chemical reaction that occurs.

Builder Repair Responsibility

This is not a manufacturing defect, nor the builder's responsibility, but is the owner's responsibility to protect these areas with doormats or proper rugs at each entrance. There are certain instances in which discoloration may be warranted by the manufacturer. Owner should contact the manufacturer for a determination under their warranty.

18.16 Color Fading of Resilient Flooring

Performance Standard

Exposures to excessive direct sunlight through glass sliding doors, for example, can cause fading or discoloration.

Builder Repair Responsibility

This is not a manufacturing defect, nor the builder's responsibility, but is the owner's responsibility to protect these areas by the use of drapes or blinds during times of direct sunlight exposure. Resilient flooring is no different in this instance than any drapes, furniture or carpeting in the home.

18.17 Heel Marks, Burns, Scratches, Scuffs and Indentations on Resilient Flooring

Performance Standard

All of the above items are caused by the owner use and abuse.

Builder Repair Responsibility

None, unless the problems are relayed to the builder in writing prior to occupancy or noted during the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency. If builder is notified prior to occupancy or at final walkthrough inspection, it is builder's responsibility to repair. If it occurs after that time, it is the responsibility of the homeowner.

18.18 Wear on Surface or Loss of Sheen on Resilient Flooring

Performance Standard

Depending on the type of product, owner is to refer to manufacturer's warranty

Builder Repair Responsibility

None

18.19 Floors Squeak

Performance Standard

Floor squeaks are common to new construction and a squeak-proof floor cannot be guaranteed. Isolated floor squeaks are not a deficiency. A large area of floor squeak which is noticeably loud is a deficiency.

Builder Repair Responsibility

Builder should try to minimize the floor squeaks and must correct if caused by a construction defect. It should be noted that second floor repair would be surface nailing in carpeted areas and impossible in vinyl and ceramic areas.

WOOD FLOORING STANDARDS

Background

Wood flooring, as a finished surface, is applied directly over the subfloor. Wood flooring, while predominantly hardwood may occasionally be softwood. Hardwood is generally preferred because of its better wearing qualities and the resistance to abrasions. Wood floorings may be either pre-finished or job site-finished. All wood floors are subject to shrinkage and expansion, as a natural occurrence. Both stains and sealers on job site-finished floors may require maintenance different from that of pre-finished floors. It should be noted that due to climate and humidity changes, wood floors may be subject to gapping.

Common Defects or Problems:

18.20 Gaps in Wood Floor

Performance Standard

It must be understood that gapping is a normal occurrence during the heating season. Repairs should then be made during the summer so a proper correction can be made because warm, humid weather will cause the floor to expand. Gaps in excess of 1/8" in summer are to be corrected.

Builder Repair Responsibility

Builder is to repair gaps in excess of 1/8"

18.21 Wearing of Finish on Wood Floors

Performance Standard

Elements of nature, moisture, and driveway materials may cause the finish on wood floors to wear faster. The homeowner should maintain their flooring to prevent this condition.

Builder Repair Responsibility

None

18.22 Finish is Uneven on Wood Floors

Performance Standard

Slight variations may appear in the finish, but must not be readily highly visible

Builder Repair Responsibility

Builder to repair/replace if visibly uneven

18.23 Cupping of Hardwood Floors

Performance Standard

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.

Builder Repair Responsibility

Builder is to repair or replace any boards that have cupped in excess of the performance standard on hardwood floors. The Builder is not responsible for cupping caused by moisture beyond the control of the Builder. There is no warranty for cupping on a pine or soft wood floor.

18.24 Dents and Chips in Wood Floors

Performance Standard

This is a normal occurrence in wood floors due to high heels, etc.. Any defects with flooring shall be brought to the attention of the builder prior to occupancy or at the time of the pre-closing walk-through inspection. When no pre-closing walk-through takes place, the claimant will immediately notify the builder in writing of the deficiency.

Builder Repair Responsibility

None, unless noted in writing prior to occupancy, then builder is to repair

18.25 Fading of Wood Floors

Performance Standard

Exposures to excessive direct sunlight through glass sliding doors, for example, can cause fading or discoloration

Builder Repair Responsibility

This is neither a manufacturing defect nor the builder's responsibility, but is the owner's responsibility to protect these areas by the use of drapes or blinds during times of direct sunlight exposure. This is no different than other fabrics such as furniture or carpeting in the home.

18.26 Floors Squeak

Performance Standard

Floors squeaks are common to new construction and a squeak-proof floor cannot be guaranteed. Isolated floor squeaks are not a deficiency. A large area of floor squeak which is noticeably loud is a deficiency.

Builder Repair Responsibility

Builder should try to minimize the floor squeaks and must correct if caused by a construction defect. It should be noted second floor repair would be surface nailing in carpeted areas and impossible in vinyl and ceramic areas.

SECTION 19 HARDWARE & LIGHTING FIXTURE STANDARDS

Background

All hardware and lighting fixtures are finished products and care should be taken to protect them, especially during painting and staining. Homeowner maintenance is required. The homeowner should make sure not to use abrasive products (i.e. lacquer thinner, solvents, cleaners and cleaning solutions, etc.) to clean the hardware and light fixtures.

It should be understood that the natural chemicals in your body will cause a breakdown of the finish in time. It should be understood that there will be color variations within finishes. Any hardware or light fixtures with a protective coating will gradually tarnish and eventually take on an antique appearance. Atmospheric conditions, direct sunlight, caustic agents such as cleaners, or scratches from contact with sharp objects may cause the protective coating to crack or peel, exposing the natural material, causing spotting and discoloration. The integrity of the surface under such conditions of exposure is not warranted. Initial care for these products requires only periodic cleaning with mild nonabrasive soap and light buffing with a soft cloth.

Regarding breakage of glass in light fixtures, it should note that such breakage is the responsibility of the manufacturer only until acceptance of delivery. Upon delivery, it is the owner's responsibility.

Common Defects or Problems:

19.1 Finish on Hardware or Lighting Fixture Wears Off

Performance Standard

If the defect is caused by products such as lacquer, stain or varnish that was applied by the builder's subcontractor, the builder would be responsible for correcting.

Builder Repair Responsibility

If the defect was caused by the builder's subcontractor, the builder is to replace or repair. If due to natural causes or negligence on the part of the homeowner, the builder would not be responsible.

19.2 Locks Do Not Work

Performance Standard

All locks must work as designed

Builder Repair Responsibility

Builder to inspect lock to verify it was installed properly. A faulty lock is covered by the manufacturer's one-year warranty. Builder is responsible for replacement if found defective.

19.3 Lights or Fans Do Not Work

Performance Standard

Wiring to fixture must be operative

Builder Repair Responsibility

Builder's electrical contractor is to repair defective wiring to lights and fans. If it is found that the fixture is inoperative, it would fall under a manufacturer's warranty. If the fixture was owner supplied, the owner will be responsible for the cost of the service call.

SECTION 20 PAINTING, STAINING & WALLPAPERING STANDARDS

Background

Preservation is the primary purpose of painting, varnishing and staining as they protect exposed surfaces, both interior and exterior from environmental conditions and moisture penetration. The prime cost in this type of work is labor, and for that reason owners often undertake the responsibility for painting/staining their homes. In such cases, the owners undertake all responsibility for the painting/staining contract unless otherwise specified. In any event, the party who undertakes the painting/staining contract, be it owner or the builder, assumes responsibility for:

Promptly and properly providing protection to exposed surfaces to prevent damage due to deterioration of unfinished surfaces. Warping, checking, cracking, dry rot and blackening of lumber or millwork, which takes place due to improper, untimely or no painting/staining is the responsibility of the party contracting contracted for the painting/staining. Millwork manufacturers do not normally extend warranties on their product against warping or cracking unless the surface has been properly finished. Special care must be exercised to assure that all sides and edges of doors are sealed to prevent warping.

Properly preparing the surface to accept the paint, stain or wallpaper, including filling nail holes and filling or sanding of imperfections.

Properly applying material in accordance with manufacturer's recommendations. The number of coats to be applied as specified in the contract.

Replacing hardware, fixtures and doors if they are removed for painting/staining or other finishing. Consequential damages are not the responsibility of the builder.

By applying surface material or wall covering, the painting or wall covering contractor implies an acceptance of the work underneath. Grain variations in wood will accept stain differently; therefore, it is not uncommon for two pieces of the same type of wood, stained with the same product to vary in color. An attempt should be made by the painter to leave small quantities of all paints and stains for future touch up, if there is any left. Some breakdown of the finish may occur around heavy concentrations of moisture (i.e. ranges, dishwashers, coffeepots) and is a homeowner maintenance item.

Varnished, painted or stained millwork and floors must be cared for like furniture and cannot be scrubbed. Exterior varnished surfaces require more maintenance than painted surfaces.

Common Defects or Problems:

20.1 Exterior Paint or Stain Peels, Chalks or Fades, Including Gutters, Downspouts or Other Sheet Metal Areas

Performance Standard

The occurrence of peeling, chalking or fading should not occur during the warranty period unless the builder has specifically informed the owner that the particular color chosen may fade or chalk.

Builder Repair Responsibility

Builder shall properly prepare and repaint affected areas, matching color as closely as possible. Owner must understand touch-ups may not match exactly. The builder shall repaint in accordance with standards of good workmanship. Should the defect(s) affect more than 25% of the total area of any one wall, the entire wall will be repaired and repainted (at the discretion of the Board), but no warranty will be extended on the newly repainted surfaces.

20.2 Repainting of Areas Affected by Drywall Repairs

Performance Standard

Industry standards require that the builder repaint new areas or repaired areas where painting has been affected by drywall repairs only when responsible for the painting contract. Repairs required shall be finished to match surrounding areas as closely as possible. Owner must be aware that there may be a slight color mismatch.

Builder Repair Responsibility

Builder will finish repair areas as indicated above.

20.3 Ceiling Not Painted Originally or After Repair

Performance Standard

Industry standards do not require painting of ceiling unless specified in contract or specifications. Ceiling drywall repairs do not require painting if the painting of ceilings was not specified in the contract.

Builder Repair Responsibility

None, unless ceiling painting was specified in the contract or specifications

20.4 Deterioration of Varnish, Polyurethane or Lacquer Finishes

Performance Standard

Natural finishes on interior woodwork shall not deteriorate during the first year of the warranty period. However, varnish type finishes used on the exterior will deteriorate rapidly and are not covered by the warranty. Millwork and floors must be cared for like furniture and cannot be scrubbed.

Builder Repair Responsibility

Builder will refinish affected areas of interior woodwork, matching the color as closely as possible.

20.5 Insufficient Coats are Applied

Performance Standard

Builder is responsible to apply the number of coats specified in the contract. Pre-priming of millwork or trim does count as one coat.

Builder Repair Responsibility

Builder to provide the proper number of coats as per contract

20.6 Paint and Stain Inside Closet Not of Quality of Other Interior Surfaces

Performance Standard

Quality of workmanship may be lower in confined quarters where space limitations affect ability of workmen workers to work freely.

Builder Repair Responsibility

Paint and stain in a proper workmanlike manner within limitations stated above

20.7 Mildew or Fungus on Painted Surfaces

Performance Standard

Mildew or fungus will form on a painted surface if the structure is subject to abnormal exposures or excessive moisture

Builder Repair Responsibility

Mildew or fungus formation is a condition the builder cannot control and is a homeowner maintenance item

20.8 Colors Vary within Similar Woods

Performance Standard

Since wood is a natural product and its grain structure is unique for each piece of wood, builder cannot guarantee an exact color match.

20.9 Color Variations Between Different Types of Wood

Performance Standard

Dissimilar woods cannot be matched exactly

Builder Repair Responsibility

None

20.10 Doors Warp

Performance Standard

The owner should note that during the initial building stabilization period, it is not unusual for doors to warp or twist and alternately stick or not close as the home goes through its initial settling and drying period, especially over the first heating season. The builder is obligated only to make replacements after this initial stabilization within in the first year period, since often the door straightens in that process.

Doors must be sealed on all six sides by the person contractually responsible for painting/staining. All interior doors, closet doors, cabinet doors or drawers whose warpage exceeds the National Woodwork Manufacturers Association Standards (approximately 1/4 " in most cases), and where the warp cannot be corrected by adjustment of either jambs, stops, and/or hinges and cabinet catches to properly latch after initial stabilization period of the home, approximately the end of the first year, shall be replaced by the builder assuming the builder was responsible for the painting / staining.

Builder Repair Responsibility

Adjust, upon request of the owner, one time only, preferably at the end of the warranty period, any doors that fail to operate properly, assuming that all six sides have been sealed by the responsible party. Replace any doors, which cannot be corrected to be within

performance standards after stabilization. Refinishing to be the responsibility of party contractually responsible for painting/staining.

20.11 Wall Coverings Pull Loose

Performance Standard

Wall covering should not pull loose

Builder Repair Responsibility

Provided the wall covering is in the builder's contract, it should be repaired. If a patch must be made, builder shall match as closely as possible. Because of dye lot differences, owner must understand exact match may not be possible. If installed by owner, wall covering repairs are the owner's responsibility.

20.12 Edges Mismatching in Pattern of Wall Covering

Performance Standard

Wall covering should match as closely as possible

Builder Repair Responsibility

Repair to meet performance standard. Because of dye lot differences, owner must understand that an exact match may not be possible.

SECTION 21 MOISTURE STANDARDS

Background

Because of the greater amount of desired and required insulation, vapor barriers, caulking, tighter windows and building practices used to cut down air infiltration, new homes have become more energy efficient. In some homes this can also cause problems with high humidity. The homes are so tight that normal humidity caused by cooking, breathing, showering, etc. builds up inside the home. This can cause steamed-up windows, condensation around outlets or recessed lights, and even drywall damage.

When these conditions are first noticed, it is important to exhaust the humidity from the home. This can be done by running bath fans and vented cooking exhaust fans when necessary, using a dehumidifier, making sure the owner's clothes dryer is vented outside, installing an air to air heat exchanger, or opening the house and letting the inside air exchange with the outside air.

The installation of de-humidification and humidification equipment and air to air exchangers is usually an owner option. Proper levels of humidity must be maintained. Just as too much moisture causes problems as described above, insufficient humidity, or excessive dryness can cause other serious problems.

It should be pointed out that household size, lifestyle and outdoor temperatures will affect the humidity level in the home. A home with an enclosed pool can be the source of excessive damaging moisture and requires special care in design, use and maintenance. To a lesser degree, saunas, hot tubs, and whirlpools also require similar care. The owners are responsible for maintaining proper temperatures and humidity in the home as well as for damage caused by failure to do so.

As outside temperatures drop, the indoor relative humidity level of your home should be decreased. For homes equipped with at least insulating glass on their windows, the following levels can be used to keep window condensation to a minimum:

Humidity for:

Outside Air Temperature

-20 degrees F

-10 degrees F

0 degrees F

+1 degrees F

+20 degrees F

Inside Relative:

70 Degrees F Indoor Air Temp.

15 to 20 percent

20 to 25 percent

25 to 30 percent

30 to 35 percent

35 to 40 percent

Common Defects or Problems:

21.1 Moisture Condensation on Windows

Performance Standard

Moisture condensation occurs on the windows since it is the coldest object in any given room with the glass having a much higher rate of heat transmission and, hence, being the colder surface during the normal heating season. Moisture condensation on windows is an indication of either too much moisture in the room, or poor circulation of the moisture that is present. The owner can minimize this condition by merely opening the window to permit the excess moisture to escape or by installing a dehumidifying system if the condition persists. It should be noted that in homes with humidification equipment, the formation of moisture on the windows is an indication that the humidifying equipment is set too high and producing too much moisture.

Builder Repair Responsibility

None, except to explain to the owner more thoroughly how this condition is caused

21.2 Moisture in Attic

Performance Standard

Builder must provide adequate ventilation to all areas of attic

Builder Repair Responsibility

Builder to meet performance standards and building codes so that no moisture forms in the attic during normal weather conditions.

21.3 Dampness and Moisture on Basement Walls, Floors, Pipes, etc.

Performance Standard

Owner should make sure that the clothes dryer has been vented to the outside and no internal heat moisture recovery device is being used. Electronic dampers, if applicable, on furnaces should be checked. Walls and slabs are cold due to ground conditions, so when warm moist air strikes the cold surfaces and it condenses. Direct outside air should not be brought in as it is usually very moist during spring, summer and fall and the problem will be increased if such air is brought into the home.

Builder Repair Responsibility

None, other than explaining the causes to the owner and advising the use of a dehumidifier and increasing air circulation

21.4 Water Appears on Interior Crawl Space Surfaces

Performance Standard

Crawl spaces should be graded and drained properly to prevent water from accumulating deeper than $\frac{3}{4}$ inch and larger than 36 inches in diameter in crawl spaces area. Standing or ponding water shall not remain for extended periods after a rain (generally, no more than 48 hours) except in surfaces that drain other areas or in areas where sump pumps discharge.

In these areas a longer period can be anticipated. The possibility of standing water after an unusually heavy rainfall should be anticipated by the owner.

Builder Repair Responsibility

The Builder will take the necessary corrective measures to create positive flow within the crawl space to discharge to the exterior of the structure.

21.5 Condensation on Skylights

Performance Standard

All skylights can develop condensation due to high humidity levels. If the skylight is in a bathroom, ventilating fans should always be used or the window opened.

Builder Repair Responsibility

Builder not responsible for humidity levels in home, which has been built to minimum building codes

21.6 Condensation on Toilets

Performance Standard

Condensation may occur during high humidity times of the year

Builder Repair Responsibility

Builder is not responsible for humidity levels in the home

21.7 Condensation or Frost on Electrical Outlets

Performance Standard

Electrical junction boxes on exterior walls may produce airflow whereby the cold air can be drawn through the outlet into a room, sometimes creating condensation or frost.

Builder Repair Responsibility

None

21.8 Mildew or Fungus on Painted Surfaces

Performance Standard

Mildew or fungus will form on a painted surface if the structure is subject to abnormal exposures or excessive moisture

Builder Repair Responsibility

Mildew or fungus formation is a condition the builder cannot control and is a homeowner maintenance item

SECTION 22 ASPHALT STANDARDS

Background

Asphalt shall be installed with 3" minimum finished depth, unless agreed to otherwise

Common Defects or Problems:

22.1 Cracks Appear in Asphalt Paving

Performance Standard

Cracks are not unusual in asphalt paving. Cracks in excess of 1/4" are a Deficiency.

Builder Repair Responsibility

Builder to repair or replace within the first after year after competition completion

22.2 Ponding / Puddling of Water

Performance Standard

A limited amount of ponding / puddling is common. Ponding / Puddling in excess of 1/4" measured in an 18" diameter is considered a deficiency in critical areas only, 1/2" in 24" in other areas.

Builder Repair Responsibility

Builder to repair or replace within the first after year after competition completion

22.3 Improper Pitch

Performance Standard

Asphalt paving that pitches toward a house foundation, garage door, or any other critical area is a deficiency.

Builder Repair Responsibility

Builder to repair or replace within the first after year after competition completion

22.4 Roller Marks

Performance Standard

Roller marks in asphalt paving are common and not considered a deficiency.

22.5 Rutting

Performance Standard

Ruts in asphalt pavements are channelized depressions in the wheel tracks. Rutting results from consolidation or lateral movement of any of the pavement layers or the subgrade under traffic. It is caused by insufficient pavement thickness, lack of compaction of the asphalt, stone base or soil, weak asphalt mixes or moisture infiltration. Obvious significant depressions in the asphalt are considered a deficiency.

Builder Repair Responsibility

Builder to repair or replace within the first after year after completion

EXCLUSION TO ABOVE STANDARDS: An asphalt "overlay" may be exempt from the above standards when condition of the base layer cannot be determined.

SECTION 23 FENCING STANDARDS

Background

Fencing shall be installed to industry standards and /or manufactures standard for fencing installation.

Common Defects or Problems:

23.1 Fence Posts Not Properly Installed

Performance Standard

Fence posts are to be installed to manufacturers' or industry standards

Builder Repair Responsibility

Builder to repair or place post to manufacturers' or industry standards within one year of date of completion

23.2 Improper or Malfunctioning Hardware

Performance Standard

Hardware and fasteners that do not perform their intended function is a deficiency

Builder Repair Responsibility

Builder to repair or place post to manufacturers' or industry standards within one year of date of completion

23.3 Fencing Not Installed along Property Lines

Performance Standard

Fencing installed along property lines, unless contractually stated, contractor has no responsibility to establish property lines, (homeowners' responsibility).

Builder Repair Responsibility

None, unless contracted to determine property lines

SECTION 24
MANUFACTURERS' SPECIFICATIONS

All building materials and components utilized in the residential structure construction shall be installed in accordance with the adopted building codes and/or the manufacturers' installation instructions. Some products in or associated with the structure are covered by manufacturers' warranties. If the product was properly installed and fails within the first year, it is the builder's responsibility to repair, replace or coordinate with the supplier / manufacturer such defective product(s). If, after the first year period a product fails and is still covered under the manufacturer's warranty, it shall be determined if the product was properly installed. If it is determined that the product was properly installed, the builder has no responsibility. If it is determined that the product was not properly installed, it will be the builder's responsibility to repair, replace or coordinate with the supplier / manufacturer, such defective product(s).

The Board reserves the right to determine to what extent repairs shall be made, within reason.