

*A Guide for
Contractors..*

October 1998

*Minimum Workmanship
Standards for
Licensed Contractors*



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Director

Jane Dee Hull, Governor

State of Arizona

STATE OF ARIZONA

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REGISTRAR OF CONTRACTORS



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INDEX

INTRODUCTION..... 1
RULE 4-9-108 WORKMANSHIP STANDARDS..... 1
DEFINITIONS..... 3
GENERAL STATEMENTS..... 4
Air Conditioning and Heating..... 5
Cabinets and Vanities..... 6
Carpentry
 Finish-(Exterior)..... 6
 Finish-(Interior)..... 8
 Framing..... 8
Carpet..... 10
Ceramic Floor Tile (Rigid Tile Floors)..... 11
Ceramic Wall Tile..... 12
Concrete..... 13
 Concrete Standards..... 14
 Freeze (or Frost) Lines Zones 2 + 3..... 14
Counter Tops (Laminated)..... 17
Cultured Marble..... 18
Electrical Systems..... 19
Fireplace..... 19
Glass..... 20
Gypsum Wall Board..... 21
Hardwood Floors..... 21
Insulation..... 22
Landscaping..... 22
Masonry..... 23
Painting..... 24
Plumbing..... 25

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Resilient Floor Covering.....	26
Roofs.....	27
Asphalt and Fiberglass Composition (3) Tab.....	27
Flat Built-up.....	29
Foam.....	31
Lightweight Aggregate Concrete.....	33
Tile.....	34
Wood Shingles and Shakes.....	35
Septic Tank Systems.....	36
Siding (Exterior).....	37
Site Work.....	38
Solar Hot Water Systems.....	39
Sprinklers, Bubblers and Drip Systems.....	39
Stucco.....	40
Swimming Pools.....	41
Coping.....	41
Decks	
Concrete.....	42
Deck Equipment.....	43
Wood.....	43
Electrical.....	44
Interior Finish	
Fiberglass/Acrylic.....	44
Fiberglass/Acrylic/Painted.....	44
Plaster.....	44
Vinyl Liner.....	46
Mechanical.....	47
Site.....	49
Solar Heaters.....	50
Mechanical.....	51

On the Building.....	51
Structure.....	52
Tile.....	54
Water Quality.....	54
Vents, Louvers and Turbines.....	55
Walls, Curbs, Fences, Etc.....	55
Waterproofing and Vapor Barriers.....	55
Weather Strip and Thresholds.....	56

INTRODUCTION

These standards cover performance of those construction items of major concern to the buyer over the first two years of ownership, unless otherwise specified. The contractor must stand behind his product, but it must be noted that the buyer is responsible for owner maintenance items. Contractor responsibility under these standards does not extend to items which have been subject to owner neglect, modification or abnormal use.

The effective date for the start of coverage of these standards is when the buyer occupies the structure or the date of discovery, whichever occurs first unless otherwise noted.

Defects in appliances properly installed by the contractor shall be limited to the manufacturer's warranty.

These standards are subject to revision as methods of construction or materials used in construction continue to change. If there is any conflict between the workmanship standards and building code requirements, the latter will prevail.

RULE 4-9-108 WORKMANSHIP STANDARDS

- A. All work shall be performed in a professional and workmanlike manner.
- B. All work shall be performed in accordance with any applicable building codes and professional industry standards.
- C. All work performed in any county, city or town which has not adopted building codes or where any adopted building codes do not contain specific provisions applicable to that aspect of construction work shall be performed in accordance with professional industry standards and shall comply with the minimum standards set forth in subsection C, paragraph 1 through subsection C, paragraph 4 below.
 - 1. In all new construction or remodeling, the minimum standards shall be in accordance with the Minimum Property Standards for Housing, Directive No. 4910.01, U.S. Department of Housing and Urban Development, 1994 (M.P.S.), as they pertain to construction and construction design but not to matters of site design and development of such residential construction.
 - 2. In all new construction or remodeling, the minimum standards shall be in accordance with the minimum building requirements as set forth in volumes 1, 2, & 3

of the 1997 Uniform Building Code, International Conference of Building Officials, 1997 (U.B.C.).

3. In all general engineering work, the minimum standards shall be in accordance with the minimum building requirements as set forth in the U.B.C. and to the Principles of Construction of Hot Mix Asphalt Pavements, Manual Series No. 22, Asphalt Institute, January 1983 and to Asphalt in Pavement Maintenance, Manual Series No. 16, The Asphalt Institute, March 1983 as they pertain to construction and to matters of design and site development.

4. Plumbing, electrical, and mechanical refrigeration work shall be governed as follows:

a. Plumbing: The minimum standards in the plumbing field shall be in accordance with the Uniform Plumbing Code, International Association of Plumbing and Mechanical Officials, 1997 (U.P.C.).

b. Electrical: The minimum standards in the electrical field shall be in accordance with the 1996 National Electrical Code, National Fire Protection Association (NFPA 70-1996), 1995 (N.E.C.).

c. Mechanical Refrigeration: The minimum standards in the mechanical refrigeration field shall be in accordance with the 1997 Uniform Mechanical Code, International Conference of Building Officials, 1997 (U.M.C.).

5. The codes and industry manuals, referred to in subsection C, paragraph 1 through subsection C, paragraph 4 are incorporated herein by reference and on file with the Office of the Secretary of State and the Registrar of Contractors. This incorporation by reference contains no future editions or amendments.

DEFINITIONS

The following standards are expressed in terms of maximum tolerances permissible. The format is designed for easy comprehension as follows:

PD POSSIBLE DEFICIENCY

A brief statement in simple terms of the problem to be considered.

AT ACCEPTABLE TOLERANCE

A statement in measurable terms above which repair is required and below which the condition is considered to be within an acceptable range.

CR CONTRACTOR RESPONSIBILITY

A statement of the corrective action required of the contractor to repair the deficiency or damage resulting from making the required repair.

A.C.I. means American Concrete Institute.

CMU means concrete masonry unit.

Substantial completion for swimming pools and spa interior cementitious finishes shall mean 30 days from the day the pool/spa is filled with water and the equipment is in operation.

All other items on the pool equipment, such as decks, tile, pumps, etc., substantial completion shall be considered as the date of the initial pool start-up.

GENERAL STATEMENTS

Contractors liability on all manufactured surfaces, including, but not limited to; porcelain, fiberglass, sheet vinyl, ceramic tile, laminated tops, marble, etc., is valid only if the damaged surface is indicated to the builder or his representative within 10 days after move-in.

Owner maintenance items include but are not limited to the following:

1. Adjustment of doors, windows and weatherstripping after the first year of occupancy.
2. Interior and exterior caulking (excluding roofing sealants) after the first year of occupancy.
3. Drips and leaks at faucets, hose bibs and other plumbing fixtures after the first year of occupancy or the expiration of manufacturer's warranty (whichever is longer) caused by normal wear of washers, seats or "O" rings.
4. Normal wear of the finish of household appliances, fixtures, painted surfaces or floor coverings.

When it is shown that any of the above items have been aggravated by the improper workmanship of the contractor, the contractor then assumes liability for repair or replacement of these items.

AIR CONDITIONING AND HEATING

1. PD Inadequate heat.
AT Heating system should be capable of producing an inside temperature of 70⁰ as measured in center of room at 5' height under local outdoor winter design conditions as specified in ASHRAE Handbook (see J Manual tests as specified in ARI standards).
CR Contractor shall correct the heating as required to provide the required temperatures. However, the contractor shall be responsible for balancing dampers, registers, and other minor adjustments one time for one season. Deficiencies caused by malfunction of system equipment or appliances are subject to the terms of the manufacturer's warranty unless workmanship by the contractor is involved.
2. PD Excessive noise from ducts.
AT Ducts should not rattle or "oilcan".
CR Determine cause and correct problem.
3. PD Inadequate combustion air vent.
AT Combustion air should be according to manufacturer's specifications.
CR Correct as necessary.
4. PD Unit too close to door.
AT None - safety hazard. Correct immediately.
CR Make necessary repairs to provide space recommended by manufacturer of unit involved.
5. PD Improper clearance to change filters.
AT Filter should be easily accessible.
CR Make corrections to allow easy removal of filter.
6. PD Air conditioner does not adequately cool structure.
AT Unit should cool structure 30⁰ (32⁰ in Scottsdale) lower than outside air temperature when measured in center of room at 5' height. Minimum temperature required shall be 78 degrees.
CR Make proper repairs or adjustments to meet temperature conditions.
7. PD Equipment fails.
AT None.

- CR Correct deficiency if within one year or within limits of manufacturer's warranty.
- 8. PD Condensate lines broken, incomplete or improperly routed.
- AT None.
- CR Make necessary corrections.
- 9. PD Water leaking into distribution system.
- AT Water should not leak into return air or supply system.
- CR Correct condition.

CABINETS AND VANITIES

It should be noted that it is not unusual for the color of the installed cabinets to be different from the samples shown at the time of selection. Color can differ with wood grain variations and stain lots. Excessive variation is not acceptable.

- 1. PD Cabinet malfunctions.
- AT Cabinet doors, drawers and other operating parts should function properly. A warp of 1/8" in 30" is not considered excessive warping.
- CR Repair, adjust or replace operating parts as required within first year.
- 2. PD Cabinet doors not at same height.
- AT Tops of cabinet doors must be in the same horizontal plane, within 1/8".
- CR Adjust doors to meet above standard within first year.
- 3. PD Voids or open knots on outside of cabinet.
- AT No voids or open knots are permitted on outside of cabinet unless special effect is requested.
- CR Replace or repair in a workmanlike manner.

CARPENTRY

CARPENTRY - FINISH - (EXTERIOR)

Due to varying moisture conditions throughout Arizona wood products will continue to expand and contract. This action is normal and beyond the contractors control.

- 1. PD Crooked, warped facias.
- AT Crooked, warped facias are unacceptable.
- CR Repair or replace one time during first year.
- 2. PD Wavy or improperly supported soffits.
- AT Soffits should be reasonably straight and properly supported and nailed.
- CR Make necessary repairs.
- 3. PD Trim omitted at juncture of soffit to wall when called for.
- AT None.
- CR Install proper trim per plans and specifications.
- 4. PD Shingle mold crooked, improperly nailed.
- AT Shingle mold should follow line of facia and be nailed securely to facia.
- CR Make necessary repairs.
- 5. PD Door casing, window casing or brick mold loose, out of square or does not fit.
- AT Door and window trim should fit, be square and be securely attached.
- CR Make necessary repairs to correct condition.
- 6. PD Corner boards too short or loose.
- AT Corner boards should be securely attached.
- CR Make necessary repairs to correct condition.
- 7. PD Excessive hammer marks on trim.
- AT Acceptable if repaired.
- CR Make necessary repairs to correct condition.
- 8. PD Spliced barge rafters.
- AT Splice must not separate or sag more than 1/8".
- CR Long barge rafters may be spliced by approved methods. Correct if splice separates or rafter sags at splice more than 1/8".
- 9. PD Exterior panel and slab doors (including garage doors) warping, splintering, shrinking and exposing unfinished areas
- AT Exterior panel doors should be sealed on all (6) sides and finished per specifications.

CR Repair and refinish as necessary one time during the first year.

CARPENTRY - FINISH - (INTERIOR)

1. PD Poor workmanship on interior trim.
AT All joints on molding, casing, etc., should fit and be securely attached, as well as properly filled and sanded.
CR Repair defective trim joints.
2. PD Pocket door rubs against frame or casing.
AT Pocket doors sometimes warp, which is beyond the builder's control. Moreover, they are particularly susceptible to owner abuse.
CR Contractor to adjust pocket door if problem is due to workmanship.
3. PD Bypass sliding doors uneven.
AT By-pass door units should be installed square and plumb with proper guides, hang evenly in frame and work smoothly.
CR Repair and/or adjust properly.
4. PD Exposed nails on trim.
AT Nails on trim should be set and properly filled.
CR Set, putty and refinish affected areas.
5. PD Doors bind or rub against jamb.
AT Doors should clear 1/8" at top and sides.
CR Repair by appropriate methods. One time within first year.
6. PD Door will not stand open.
AT Doors should not move to open or close when 45° to opening.
CR Correct by appropriate method.
7. PD Interior or exterior door warped.
AT 1/4" in length of door when measured in any direction.
CR Replace warped door and refinish to match existing doors as per original specifications, one time within first year.

CARPENTRY - FRAMING

Framing lumber shall meet lumber industry standards.

1. PD Floors squeak or sub-floor appears loose.
AT Should not be objectionable to owner within reasonable repair capability.
CR Locate problem and correct.
2. PD Floors uneven or out of level.
AT Unevenness of floor should not exceed 3/16" in 48". Floors should be level within 1/2" in any 12'.
CR Make necessary repairs to correct condition.
3. PD Interior walls not straight or not plumb.
AT Interior walls should be straight within 1/4" and plumb within 1/4" measured from floor to ceiling at corners and doors.
CR Make necessary repairs to correct condition.
4. PD Walls not 90° angles to each other.
AT Walls should be perpendicular within 1/4" in 10'.
CR Contractor may make cosmetic corrections (e.g. he can use tapered furring strips in the framing stage, or float out the sheetrock with drywall mud).
5. PD Rough openings for doors and windows must be properly dimensioned, plumb and level.
AT The rough openings should be reasonably close to the manufacturer's recommendations.
CR Contractor to assure that openings are structurally sound and cosmetically pleasing.
6. PD Warped and twisted studs or ceiling joists.
AT Walls are to be straight and ceilings are to be level and should not bulge more than 3/8" in 8'.
CR Contractor to make necessary repairs where no structural deficiencies are indicated.
7. PD Twisted or warped interior and exterior posts or beams.
AT Beams or post should not twist more than 1/16" per foot of 4" x 12" descending ratio as follows:

4" x 12", 1/16" twist per foot, 1 1/4" total allowable
4" x 6", 1/32" twist per foot, 9/16" total allowable

4" x 4", 1/40" twist per foot, 1/2" total allowable

Warpage or twisting should not damage beam pockets or be cosmetically unpleasing.

CR Make necessary repairs to correct condition.

8. PD Cracked interior finished beams.
AT Cracks in finished interior beams which do not affect structural strength are acceptable if patched or filled.
CR Make necessary repairs.
9. PD Improper crickets.
AT None. Crickets must be constructed to provide proper drainage.
CR Repair or replace cricket.
10. PD Roof holds water due to improper framing.
AT Minor ponding (up to 1/2" in small areas no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall.
CR If ponding exceeds acceptable standards due to improper framing, the contractor will be responsible for repairing or replacing affected area.
11. PD Scuppers installed too high.
AT Scuppers should be installed low enough to completely drain roof.
CR Contractor will be responsible for repairing or replacing improperly installed scuppers.

CARPET

Tackless carpets should be tightly stretched and securely attached to the tack strip at all perimeters. No bubbles or ripples should be visible in the carpet.

Seams should be of a good appearance from a standing position, however, seams will normally have some visibility.

Some of the contributing factors to seam visibility are:

Peaking - Due to the additional thickness of the seam tape and the action of the heat from the seaming iron, slight peaking can occur at the seam. This will be particularly apparent in lower profile and velvet type textures.

Textures - Various textures have an effect on seam visibility. Loop pile, loop pile berber and dense velvet finishes will generally create more visible seams than other textures.

Contractors who install carpeting will be expected to resolve problems regarding manufacturing defects with the manufacturer on behalf of the owner if the contractor was responsible for the sale and or selection of the carpeting.

1. PD Pile crushing in new installations.
AT Some pile crushing is not uncommon when the installation is new. This will normally self correct within 30 to 90 days.
CR If severe crushing persists after 90 days, carpet should be replaced.
2. PD Seams visible.
AT Seams should be tightly fitted with no gaps or overlaps in the seam.
CR Remake seam if gaps or overlaps are present.
3. PD Defective materials.
AT Defective materials not acceptable.
CR Defective materials shall be replaced.
4. PD Carpet seams placed in "T" configuration.
AT None - carpet seams placed in "T" configuration are not acceptable except where proper seaming is impractical.
CR Contractor will correct seam or replace affected area.

CERAMIC FLOOR TILE (RIGID TILE FLOORS)

When a defect in the substrate is found, the general contractor and/or the owner must be notified in writing that a specific surface area is unacceptable for installation, to relieve the tile contractor of workmanship responsibility for problems created in that specific area by the substrate.

1. PD Cracks in tile on floor.
AT None.
CR Replace cracked tile. (Reference above paragraph).
2. PD Loose tile.
AT None.

- CR Contractor to repair or replace loose tiles by appropriate method.
- 3. PD Hollow sounding tile.
AT Acceptable if not extensive and tile is solidly bonded.
CR Repair or replace by appropriate methods.
- 4. PD Crooked, out of line tile.
AT Tile surface should be straight and reasonably flat, allowing for individual characteristics of the tile (i.e., Mexican Saltillo tile).
CR Make necessary repairs to correct condition.
- 5. PD Uneven tile.
AT Inherent characteristics of the tile dictate the installation of tile.
CR Remove and replace uneven tile which exceeds manufacturer's tolerance more than 1/8" lippage.
- 6. PD Grout discoloration.
AT Shade variations are inherent in all portland-cement based products. Discoloration will occur due to job-site conditions, individual characteristics of ceramic tile, variances in the rate of hydration, etc..
CR Contractor is not responsible for discoloration after the first year of completion nor for discoloration caused by the use of waxes, sealers, cleaning solutions, etc., not applied or recommended by the contractor.

CERAMIC WALL TILE

- 1. PD Ceramic tile cracks or becomes loose.
AT None.
CR Replace tile unless caused by damage or abuse not attributable to the contractor.
- 2. PD Missing or irregular grout.
AT None.
CR Correct by regrouting affected areas.
- 3. PD Hairline cracks at joints or with other materials such as bath tubs.
AT None - probable cause, normal expansion and contraction or grout shrinkage.
CR Contractor to correct one time during first year after completion.

- 4. PD Crooked, improperly cut or unevenly set tile.
AT None.
CR Make repairs as necessary.
- 5. PD Shower floors and Roman tubs do not drain.
AT Shower floors and Roman tubs should slope to drain.
CR Correct as necessary.
- 6. PD Showers leaking through pan.
AT None.
CR Repair by appropriate means.
- 7. PD Improper or omitted trim parts.
AT None.
CR Install proper parts to complete tile trim.
- 8. PD Grout discoloration.
AT Shade variations are inherent in all portland-cement based products. Discoloration will occur due to job-site conditions, individual characteristics of ceramic tile, variances in the rate of hydration, etc..
CR Contractor is not responsible for discoloration after the first year of completion nor for discoloration caused by the use of waxes, sealers, cleaning solutions, etc., not applied or recommended by the contractor.

CONCRETE

These standards apply to standard steel troweled or light broom finishes. Specialty finishes are not included.

Settling and heaving of soils under concrete caused by alteration of grades by owner or owner's agent, which create excessive ponding or moisture adjacent to concrete foundations, walks, drives, slabs, or patios, will not be considered the contractor's responsibility providing he has met all the conditions called for in the contract, plans specifications, and all code requirements.

The contractor will be held responsible for settling or heaving if compaction is not according to the licensed soils engineer's report and if no alterations have been made after close of escrow.

CONCRETE - STANDARDS

All concrete shall be placed in compliance with all applicable area codes and standards. This will apply to design strengths, dimensions, frost lines, reinforcement, etc. These workmanship standards will embrace these codes and standards, along with items not specifically spelled out by the codes, such as proper placement in a good and workmanlike manner to achieve appearance and function of the finished product.

CONCRETE - FREEZE (OR FROST) LINES ZONE 2 + 3

In areas above 3000 ft. elevation where freeze and thaw is experienced, it is required that concrete be air entrained according to A.C.I. specifications for the aggregate size of the concrete being placed. It is recommended that denser concrete be placed to offset the effects of freeze and thaw along with placing the concrete below the freeze line. The freeze line will vary with the elevation. Recommended depths are as follows:

Elevation 3000 - 4999 Ft.	18"
Elevation 5000 - 6999 Ft.	24"
Elevation 7000 - 8000 Ft.	36"

Check with local building officials for required depth in the area where the construction is planned.

- PD Cracks in "poured in place" concrete stems.

AT Cracks 1/8" are acceptable without repair. Cracks wider than 1/8" shall be properly repaired with appropriate material. Cracks over 1/4" will indicate the possibility of settlement and should be corrected to eliminate the cause.

CR Properly fill cracks with appropriate materials if less than 1/4". If crack is 1/4" or wider, determine the cause and make proper repairs. Repairs should be made near end of first year to permit settling of building to stabilize.
- PD Cracks in basement floors.

AT Minor cracks in concrete basement floors are acceptable. Cracks wider than 3/32" or over 1/16" in vertical deflection are excessive and unacceptable.

- CR Contractor shall make appropriate repairs so it is acceptable for its intended use.
- PD Cracking of attached garage slabs, carports, exterior slabs, patios, driveways and sidewalks.

AT Cracks in excess of 3/32" width and 1/8" vertical displacement or compound cracks are not acceptable. Cracks of 3/16" are acceptable for sidewalks.

CR Contractor shall repair cracks up to 3/32" with approved materials in a workmanlike manner. If vertical displacement or compound cracking is present affected area should be replaced. Cracks in sidewalks which exceed 3/16" will require the affected areas to be replaced.
 - PD Patio or carport cracking at columns.

AT Half moon cracking indicates improper footing at columns or lack of proper isolation joints at footings.

CR Install proper footings at columns and install isolation joints.
 - PD Cracking, settling or heaving of stoops or steps.

AT Settlement or heaving up to 1/4" is acceptable.

CR Cracks at stem or walk areas should be sealed with appropriate materials.
 - PD Spalling, sealing or pitting of concrete.

AT Concrete should not deteriorate to the extent that the aggregate is exposed or the aesthetics are destroyed under normal use and weather conditions.

CR Contractor shall take corrective action necessary to repair or replace defective areas. Contractor shall not be responsible for damage caused by chemicals or other factors beyond his control.
 - PD Ponding or standing water on concrete surfaces.

AT Water should drain from garages, patios, stoops, carports, walks and driveways. No standing water is permissible exceeding 3/32" on stoops, patios, carports, garages and walks. Driveways shall not exceed 3/16". Flood, wait 30 minutes and then check for ponding.

CR Contractor shall take corrective action to assure proper drainage.
 - PD Improper expansion and/or control joints in driveways.

- AT Driveways shall have expansion joints at carport or garage and at curb or sidewalk. Control joints tooled at least 1/5 the thickness shall be placed no more than 10' apart.
- CR Contractor shall take whatever steps necessary to provide proper control or expansion joints.
- 9. PD Cracks in control joints.
- AT Concrete should crack in control joints. Cracks exceeding 3/8" are excessive and indicate a problem exists with compaction of subsurface or subsoil.
- CR Take whatever steps necessary to correct condition causing excessive movement.
- 10. PD Uneven or wavy floors.
- AT Floors shall not vary from flat exceeding 1/4" over a 10' area provided the deviation is gradual. Deviations, dips, or sags over short distances and easily visible to the eye will be considered unacceptable.
- CR Contractor shall take whatever action necessary to correct uneven condition.
- 11. PD Unlevel floors.
- AT Floors shall be level within 1/4" plus or minus in any 12' run.
- CR Contractor shall take whatever action necessary to correct this condition.
- 12. PD Chips and broken corners in concrete.
- AT Chips and broken corners in concrete will occur during construction. These chips and broken corners are unacceptable at closing time.
- CR Properly repair chips and broken corners damaged prior to close of escrow.
- 13. PD Different elevations between slabs.
- AT Vertical displacement between two slabs should not be a trip hazard.
- CR Repair by appropriate method to provide even edges.
- 14. PD Cracking of finished exterior concrete surfaces.
- AT Excessive crazing is unacceptable.
- CR Take appropriate action to correct.
- 15. PD Improper, inadequate, unsightly finishing.

- AT Poorly finished concrete is unacceptable.
- CR Take appropriate action to correct.
- 16. PD Frozen or frost bitten concrete.
- AT Unacceptable.
- CR Take appropriate action to correct.
- 17. PD Pop-outs in concrete slabs.
- AT Minor pop-outs are acceptable if repaired.
- CR Take appropriate action to correct unless repairs are so numerous as to adversely affect the aesthetic value of exposed concrete surfaces.

COUNTER TOPS (LAMINATED)

High Pressure Decorative Laminate and its particle board substrate are both wood based products which typically expand and contract with humidity. In order to maintain long lasting functional and aesthetic usage it is necessary to practice regular maintenance. Heat generating appliances should not be placed on or near seams and/or joints. Moisture should never be allowed to stand on seams and/or joints for more than 24 hours.

- 1. PD Scratches and chips in laminate.
- AT Scratches that cannot be seen looking straight down at a distance of 12" nor felt with fingernail are considered acceptable. Notable scratches or chips must be reported on walk thru or within 10 days after move-in.
- CR Repair or replace as required.
- 2. PD Tops bowed or warped.
- AT Bow or warp not to exceed 1/16" per lineal foot.
- CR Repair or replace as required.
- 3. PD Defects or flaws in plastic laminate.
- AT None.
- CR Repair or replace as required.
- 4. PD Loose self-edge at laminate edge or splash.
- AT NONE - Self-edge shall be completely adhered to the substrate.
- CR Repair or replace as required.

- 5. PD Moisture damage at seams, joints or around the sink.
- AT NONE - All seams and joints shall be subject to the American National Standard Institute guidelines.
- CR Repair or replace as required (except where there is owner neglect, modification or abnormal use.)
- 6. PD Cuts - Burns - Abrasions - Stains.
- AT Cuts, burns, abrasion and/or stains must be reported on walk thru or within 10 days after move-in.
- CR Repair or replace as required.

CULTURED MARBLE

- 1. PD Scratches in marble.
- AT None - scratches in marble must be reported to the contractor within 10 days of occupancy or noted on walk-thru.
- CR Repair or replace as required.
- 2. PD Marble is bowed or warped.
- AT Bow or warp may not exceed 1/16" per lineal foot in either direction.
- CR Contractor to repair to meet standards or replace as required.
- 3. PD Pinhole defects in marble.
- AT Pinhole defects may be repaired unless excessive.
- CR Contractor to repair as required. Excessive pinholes require marble replacement.
- 4. PD Tub ledge fails to drain water into tub.
- AT None.
- CR Contractor to take appropriate steps to insure that tub ledge drains properly.
- 5. PD Marble window sills in bathrooms or kitchens hold water.
- AT Marble window sills in these areas should drain away from window.
- CR Contractor to correct as necessary.
- 6. PD Pattern in marble is not continuous.

- AT Small areas of irregular pattern will be acceptable unless it occurs in a prominent location.
- CR Contractor to replace marble where required.

ELECTRICAL SYSTEMS

- 1. PD Malfunction of electrical fixtures, switches or outlets.
- AT All fixtures, switches and outlets should operate as intended.
- CR Make necessary repairs to correct condition.
- 2. PD Breaker trips with normal use.
- AT Breaker should operate as intended.
- CR Replace breaker if defective.
- 3. PD Electrical equipment not plumb and true.
- AT All electrical equipment shall be level, plumb and true with the structure and other equipment.
- CR Correct condition as necessary.
- 4. PD Electrical equipment or materials not secure or adequately supported.
- AT All electrical equipment and material shall be firmly secured and adequately supported.
- CR Correct condition as necessary.
- 5. PD Switch located behind door.
- AT All boxes for switches shall be located on the side of the door frame opposite the hinge close to the door trim.
- CR Correct condition as necessary.
- 6. PD Switches or plates span two different materials and are not flush.
- AT Switches or plates shall not span different types of building materials, vertically or horizontally, unless specified and flush with both materials.
- CR Correct condition as necessary.

FIREPLACE

- 1. PD Fireplace or chimney does not draw properly.

- AT The fireplace chimney should function properly except under unusual conditions such as temporary downdrafts or wind, or where large obstructions such as trees interfere with air currents.
- CR Correct fireplace or chimney to function properly except where external obstruction such as trees are responsible for the problem.

- 2. PD Damper does not operate properly.
- AT Damper should have full travel and operate easily.
- CR Make appropriate repairs.

GLASS

Glass and mirror defects must be reported to the contractor at the time of the walk-thru. If no walk-thru has been held, then these defects must be reported within ten days of occupancy or replacement installation.

- 1. PD Scratches on glass.
- AT If observable in daylight at 15', glass is unacceptable.
- CR Replace glass.
- 2. PD Any malfunction of windows, screens and sliding glass doors.
- AT Windows, screens and sliding doors should operate smoothly with reasonable ease. Contractor cannot be held responsible for owners alterations or abuse to windows, screens and sliding doors.
- CR Correct, replace or repair as necessary one time in first year.
- 3. PD Leaks at glazing in windows or doors.
- AT Some infiltration of moisture and dust is normally noticeable around doors and windows, especially during high winds and excessive rain. Excessive infiltration resulting from open cracks, poorly fitted doors and windows or poorly fitted weather stripping is not permissible.
- CR Correct as necessary.
- 4. PD Cracked or broken glass.
- AT Glass should not be broken.
- CR Replace glass.
- 5. PD Scratches on mirror surfaces.

- AT Scratch which is observable in daylight at a distance of 3'.
- CR Replace mirror.

GYPSUM WALL BOARD

- 1. PD Ceiling sags.
- AT Ceiling should not sag more than 3/8" in 8'.
- CR Correct condition by appropriate means.
- 2. PD Visible defects such as nail pops, cracks and seam lines due to expansion and contraction of structure.
- AT These are normal defects except nail pops.
- CR Normal defects such as hairline cracks where drywall meets a dissimilar material are considered acceptable and can readily be corrected by the owner when redecorating. If nail pops occur, the contractor shall be responsible to correct the fault only one time during the first year of occupancy.
- 3. PD Loose panels, improper nailing.
- AT Panels should be firmly fastened against stud.
- CR Renail and repair and paint finish.
- 4. PD Flat areas in textured finish.
- AT Not acceptable if easily visible.
- CR Make whatever repairs necessary to correct.
- 5. PD Voids at switch and receptacle plates.
- AT Voids not acceptable.
- CR Repair and touch up as necessary.

HARDWOOD FLOORS

- 1. PD Wood curls, pops, buckels.
- AT None (floor contractor not responsible for excessive moisture caused by other trades, i.e. broken water pipes, roof leaks).
- CR Repair or replace hardwood floor. Hardwood floors must be installed according to manufacturer's recommendations.

INSULATION

1. PD Insulation not uniform in attic.
AT Insulation must meet minimum specified R factor.
CR Make necessary corrections to assure uniform thickness and specified R factor.
2. PD Insulation not installed properly.
AT Insulation should be installed as specified in contract.
CR Correct condition as necessary.
3. PD Garage area not insulated.
AT Normally not done unless specified.
CR Correct only if specified.

LANDSCAPING

1. PD Landscaping interferes with drainage.
AT Landscaping should not alter established drainage pattern.
CR Correct as necessary.
2. PD Plants are not size or species specified.
AT None.
CR Install proper plants.
3. PD Plants dying within warranty period.
AT Plants should be installed in healthy living conditions.
CR Replace affected plants unless condition is caused by owner neglect.
4. PD Rocks uneven or spread too thin.
AT None.
CR Correct so that proper coverage is achieved.
5. PD Grass and weeds growing in rocks.
AT Areas should be treated with proper herbicide.
CR Correct condition by appropriate means, within first year.
6. PD Low spots.

- AT Area should be fine graded and properly compacted.
CR Correct condition.

7. PD Damage caused by landscaping equipment.
AT None.
CR Make or have proper repairs made to anything damaged during landscaping, including walks and drives.

MASONRY

This section covers CMU, slump block and brick. Masonry walls shall be straight, plumb and level, with uniform mortar joints and proper grout and vertical horizontal reinforcement. CMU will vary in texture and color, therefore, care should be used in selection of the material. Slump block will absorb moisture and must be sealed to prevent leaks through walls and damage in freeze-thaw zones.

1. PD Crooked, out of plumb, out of level masonry walls.
AT 1/4" out of plumb, 1/2" in total length of wall out of level not to exceed 1/4" in 8'.
CR Make whatever correction necessary to bring wall into tolerance.
2. PD Uneven surface of masonry walls.
AT Walls should be free of protruding or sunken blocks or bricks, unless specifically called for in plans and specifications.
CR Replace affected block of joints.
3. PD Voids in mortar joints.
AT Small voids in masonry mortar joints up to 1/4" are acceptable unless they are excessive.
CR Small voids in excess of 1/4" must be filled.
4. PD Cracks in mortar joints (stair step).
AT Stair step cracks in mortar joints can result from normal settlement and do not necessarily indicate a structural problem. Cracks in excess of 3/32" should be filled.
CR Cracks 1/8" or more should be filled. If cracks exceed 1/8" or if crack extends across the block itself, a structural problem may exist. Determine cause of the crack and make appropriate repairs if necessary.

5. PD Parapet walls not capped or filled.
AT None.
CR Parapet walls shall be properly capped and filled.
6. PD Parapet walls not finished on roof side.
AT None.
CR Parapet walls shall be struck on roof side and voids in mortar filled.
7. PD Masonry columns out of plumb or out of line.
AT Masonry columns shall be plumb within 1/4" and in line within 1/4".
CR Make whatever correction necessary to bring into tolerance.
8. PD Mortar joints not straight, plumb or vary in thickness. (Certain masonry products are designed to exhibit an irregular appearance and must be evaluated accordingly.)
AT Mortar joints should be straight and plumb and within 3/16" in adjacent courses and of uniform thickness unless otherwise specified or detailed on plans. (Note: The bed joint may vary from these standards to compensate for irregularities in the stem wall or footing as allowed by the U.B.C.)
CR Make whatever repairs necessary to correct these conditions.
9. PD Metal reinforcement (rebar, duo-wire, etc.) not placed in masonry walls and fences as specified or detailed in plans.
AT None. Reinforcement should be placed as specified.
CR Contractor shall reconstruct and provide proper reinforcement. The existing wall or fence material may be reused provided it is undamaged.

PAINING

1. PD Exterior paint or stain peels or deteriorates.
AT Exterior latex or enamel paint should not fail within two years.
CR Contractor shall properly prepare and refinish affected areas, matching color as closely as possible. Where finish deterioration affects the majority of the wall or area, the whole area should be refinished.
2. PD Painting required as corollary repair because of other work.

- AT Necessary repairs required under this standard should be refinished to match surrounding areas as closely as possible.
CR Refinish required areas as indicated.
3. PD Deterioration of stains, varnish or lacquer finishes.
AT Natural finishes on interior woodwork should not deteriorate during the first year of ownership. However, varnish type finishes used on exterior will deteriorate rapidly.
CR If necessary, the contractor shall be responsible to correct or repair deteriorating finish only one time during the first year of occupancy.
4. PD Interior paint inadequately covers surface.
AT Interior paint shall be applied in an amount conforming to manufacturer's specifications of coverage and sufficient to visually cover all specified areas.
CR The contractor shall retouch all surfaces where inadequate paint has been applied to cover original surfaces. Paint deterioration caused by normal living conditions, such as repeated scrubbing or scouring is a maintenance item and the responsibility of the owner.
5. PD Exterior doors not sealed on top and bottom.
AT None - doors will be sealed properly on all six sides.
CR Make appropriate repairs.

PLUMBING

1. PD Leakage from any piping.
AT No leaks of any kind should exist in any soil, waste, vent, gas or water piping.
CR Make repairs to eliminate leak.
2. PD Faucet or valve leak.
AT For the first 24 months, no valve or faucet should leak due to defects in material or workmanship. However, leakage caused by worn washers are considered owner maintenance. Manufacturer's warranty excepted.
CR Contractor will repair or replace the leaking faucet or valve within the 24 month period, unless due to owner negligence.

3. PD Defective plumbing fixtures or trim fittings.
 AT Defective fixtures or fittings should be replaced during manufacturer's warranty period.
 CR Contractor will replace or repair defective fixture or fitting according to manufacturer's warranty unless workmanship is involved, then contractor will repair problem. Contractor is not responsible for defects due to owner negligence or water impurities.
4. PD Stopped up sewers and drains.
 AT Sewers and drains should operate properly.
 CR Contractor responsible only if caused by workmanship defect.
5. PD Commode loose at floor.
 AT Commode should be secure.
 CR Repair as necessary.
6. PD Vents or other penetrations located at roof valley.
 AT Vents or other penetrations may not be located within 18" of valley centerline.
 CR Contractor shall relocate vents or other penetrations and have roof repaired by properly licensed contractor.

RESILIENT FLOOR COVERING

Some resilient flooring is not recommended for use on concrete slabs. If the buyer specifies these floorings, the buyer assumes responsibility for any problems that might develop after installation if the owner is advised of this fact in writing prior to installation.

1. PD Nail pops showing through floor covering.
 AT Readily visible nail pops should be repaired.
 CR Correct condition and repair or replace floor covering.
2. PD Seams easily visible due to spacing or pattern mismatch.
 AT Seams should not readily be visible from a standing position. Pattern mismatch is not acceptable.
 CR Make appropriate repairs or replace..

3. PD Floor covering becoming loose at seams or edges or bubbles in floor covering.
 AT Floor covering should remain cemented to floor.
 CR Repair or replace as required.
4. PD Foreign particles under floor coverings.
 AT Floor covering should not be installed over debris.
 CR Repair or replace as required.
5. PD Use of materials not recommended for on-grade concrete slabs, unless specified by owner or plans and specifications.
 AT Use of this material is at contractor's risk. If hydrostatic pressure or moisture causes discoloration or separation, covering is unacceptable.
 CR Replace with approved material.
6. PD Irregular cut edges along cabinets or walls.
 AT Edges shall be cut straight and uniform with cabinets or walls.
 CR Make appropriate repairs or replace.

ROOFS

Roofs should not leak and should be installed to withstand winds accompanied by heavy rains. The contractor will not be responsible for leaks caused by alterations, tie-ins or penetrations caused by owner or others after completion of the roof, nor for acts of God.

All re-roofing will comply with the U.B.C. appendix chapter 32 in addition to any other applicable codes adopted by the governing municipality..

ROOFS - ASPHALT AND FIBERGLASS COMPOSITION (3 TAB)

1. PD Too much exposure.
 AT Tab should cover the top of water course on shingle in preceding course.
 CR Remove and replace with new roofing.
2. PD Uneven, irregular or crooked lines.
 AT Lines should be reasonably straight and courses even width.
 CR Make appropriate repair or replace.

- 3. PD Fish mouths and/or curling.
AT May be repaired unless condition is widespread.
CR Make appropriate repairs or replace.
- 4. PD Improper nailing.
AT Nailing should be per approved schedule.
CR Make whatever repairs necessary to correct condition except excessive nailing (more than 6 fasteners per shingle) which requires shingle replacement.
- 5. PD Crooked or unsightly ridges and hips.
AT Should be straight and neat.
CR Make necessary repairs.
- 6. PD Improper, crooked and unsightly valleys.
AT Valley cuts should be straight.
CR Repair as necessary.
- 7. PD Flashings and jacks improperly installed.
AT None.
CR Make appropriate repairs.
- 8. PD Improper crickets installed by the roofing contractor.
AT Crickets shall have a minimum slope of at least twice that of the adjacent roof.
CR Install cricket correctly & repair or replace affected roofing.
- 9. PD Improper crickets (installed by other trades).
AT Roofer will be responsible for repairing or replacing affected roofing if he installs roof over improper crickets unless verifiable documentation of the potential problem has first been submitted to the general contractor or owner.
CR Repair or replace affected roofing after cricket has been corrected by the responsible party.
- 10. PD Vents or other penetrations located at roof valley.
AT Vents or other penetrations may not be located within 18" of valley centerline.

- CR Roofer will be responsible for repairing or replacing affected roofing unless verifiable documentation of the potential problem has first been submitted to the general contractor or owner.
- 11. PD Roof is not of a uniform color or texture due to shingle replacements.
AT Shingle replacements within the first 2 years of installation due to faulty materials or a workmanship deficiency may not exceed 20% of the entire roof area.
CR Contractor shall remove entire roof and install a new roof.

ROOFS - FLAT BUILT-UP

Failure to obtain a building official's inspection and approval on re-roofing when required by the governing municipality will require the built-up roof covering to be completely removed before applying the new roof.

- 1. PD Roof leaks.
AT Roofs should not leak.
CR Determine cause and properly repair.
- 2. PD Roof holds water.
AT Minor ponding (up to 1/2" in small areas no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall.
CR If drainage problem is due to improper framing problems, the roofer will be responsible for repairing or replacing affected roofing unless verifiable documentation of the potential problem has first been submitted to the responsible party.
- 3. PD Excessive ponding due to build-up of roofing materials at scuppers.
AT Minor ponding (up to 1/2" in small areas no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall.
CR Remove excess material and repair as necessary.
- 4. PD Bare spots on gravelled roofs.
AT Gravel should be firmly embedded in flood coat.
CR Initial two pounds of gravel per square foot should be embedded in asphalt. Additional two pounds per square foot is for cover. Apply additional asphalt and embed gravel in bare spots.
- 5. PD Scuppers installed too high.

- AT Scuppers should be installed low enough to completely drain roof.
 CR Roofer will be responsible for repairing or replacing affected roofing unless verifiable documentation of the potential problem has first been submitted to the responsible party.
6. PD Improper or non-existent cants.
 AT None.
 CR Correct by whatever means necessary.
7. PD Improper flashing and counter flashing at parapets and vertical walls.
 AT Roofing should be properly flashed.
 CR Repair by appropriate means.
8. PD Chimneys not flashed and counter flashed.
 AT None.
 CR Correct by installing proper flashing.
9. PD Omitted or improperly installed vent jacks.
 AT None.
 CR Repair by whatever means necessary.
10. PD Bubbles or roof-ply separations.
 AT Minor bubbles or blisters should not be cut. If seam separation occurs as a result of the blister, it should be repaired in accordance with manufacturer's specifications.
 CR Make proper repairs as required. If condition is widespread, roof should be replaced.
11. PD Gravel guard improper size and incorrectly installed.
 AT None.
 CR Repair or replace as necessary.
12. PD Roof coating alligatored.
 AT Some minor alligating is normal. Emulsified asphalt used in proper quantities should not alligator.
 CR Recoat to correct problems; pursuant to manufacturer's specifications.
13. PD Seams lifting or curling.
 AT Seams should be properly mopped down and flood coated.

- CR Make appropriate repairs to correct problem.
14. PD Roof not installed per specifications.
 AT None - roof must be proper type and proper number of plies.
 CR Repair or replace as necessary.
15. PD Roofing material applied over construction debris on roof deck.
 AT None.
 CR Take whatever action necessary to correct problem.
16. PD Improper crickets installed by the roofing contractor.
 AT Crickets shall have a minimum slope of at least twice that of the adjacent roof.
 CR Install cricket correctly & repair or replace affected roofing.
17. PD Improper crickets (installed by other trades).
 AT Roofer will be responsible for repairing or replacing affected roofing if he installs roof over improper crickets unless verifiable documentation of the potential problem has first been submitted to the general contractor.
 CR Repair or replace affected roofing after cricket has been corrected by the responsible party.

ROOFS - FOAM

Failure to obtain a building official's inspection and approval on re-roofing will require the built-up roof covering to be completely removed before applying the new roof.

1. PD Use of term "nominal inch".
 AT For the purposes of these standards, "nominal inch" will be defined as "at least 1 inch" with occasional 7/8" measurements acceptable.
 CR Repair as necessary.
2. PD Bubbles in foam coating (separation from deck).
 AT Bubbles are unacceptable and should be repaired.
 CR Make appropriate repairs.
3. PD Humps in foam.
 AT Humps should be ground level prior to coating.

- CR Repair as necessary.
4. PD Ripples in foam.
 AT Small waves or ripples are acceptable.
 CR Repair if waves or ripples are excessive.
5. PD Coating too thin or not complete.
 AT Coating should be proper thickness and no voids.
 CR Recoat as necessary.
6. PD Overspray on areas of building or equipment.
 AT None.
 CR Remove overspray and clean affected areas.
7. PD Repairs with asphaltic materials.
 AT None - asphaltic materials should not be used.
 CR Remove and repair with foam or approved silicone materials.
8. PD Scuppers or drains plugged by foam.
 AT Scuppers and drains should retain original size.
 CR Make proper repair.
9. PD Debris on roof.
 AT None.
 CR Remove debris from roof. Recoat foam if necessary.
10. PD Ponding.
 AT Minor ponding (up to 1/2" in small areas no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall.
 CR Make necessary repairs to insure proper drainage. If drainage problem is due to improper framing, the general contractor should have been notified prior to roofing.
11. PD Improper crickets (installed by other trades).
 AT Roofer will be responsible if he installs roof over improper crickets unless written documentation of the potential problem has first been submitted to the general contractor.
 CR Install cricket correctly and repair or replace.

ROOFS - LIGHTWEIGHT AGGREGATE CONCRETE

1. PD Roof leaks.
 AT Roof should not leak.
 CR Determine cause and properly repair.
2. PD Improper underlayment.
 AT Since the underlayment is really the roof, it should be of proper weight material mopped on.
 CR Remove roof and replace.
3. PD Excessive cracking or chipping.
 AT Some cracking is expected and acceptable. If excessive or unsightly it is unacceptable.
 CR Remove and replace affected area.
4. PD Cracked, chipped, irregular and unsightly edges.
 AT Should be cosmetically pleasing.
 CR Repair or replace as necessary.
5. PD Unsightly, irregular or chipped rises.
 AT Forms should not be moved too soon. Edges at rise should be uniform and smooth.
 CR Make appropriate repair.
6. PD Color variation.
 AT Color between batches should be reasonably close.
 CR Remove and replace affected area.
7. PD Overspray on building, chimneys or equipment.
 AT All spray material should be removed.
 CR Take necessary action to correct condition.
8. PD Improper crickets (installed by other trades).
 AT Roofer will be responsible if he installs roof over improper crickets unless written documentation of the potential problem has first been submitted to the general contractor.
 CR Install cricket correctly and repair or replace.

ROOFS - TILE

1. PD Roof leaks.
AT None - a roof should not leak.
CR Determine cause of leak and make necessary appropriate repairs.
2. PD Loose or falling tiles.
AT None - tiles should be securely attached to roof by approved methods.
CR Remove and correct condition on affected area.
3. PD Ridge - hip and rake tiles loose or missing.
AT None - tiles should be securely attached.
CR Remove tiles and correct condition.
4. PD Wood nailers visible under hip or ridge tiles per manufacturer's specifications.
AT None.
CR Remove tiles and correct condition.
5. PD Chipped and broken tiles.
AT Chips no larger than a quarter are acceptable unless excessive in number. Broken and cracked tiles are not acceptable.
CR Replace affected tiles. Contractor will not be held responsible if damage was caused by others after close of escrow. Example: Installation of T.V. antenna.
6. PD Irregular, uneven and unsightly valleys.
AT Valleys should be reasonably straight and aesthetically acceptable.
CR Make cosmetic repairs.
7. PD Unsightly and/or off color mortar.
AT Mortar should be neat and reasonably uniform in color.
CR Make appropriate repairs to correct condition.
8. PD Improper exposure.
AT Exposure not to exceed limits recommended by manufacturer.
CR Correct by whatever means necessary.
9. PD Vents not flashed or improperly flashed.
AT Only approved roof jacks are acceptable.

- CR Make necessary repairs to correct condition.
10. PD Improper or inadequate flashing.
AT Flashings should be installed according to manufacturer's recommendations and should be approved type.
CR Make necessary repairs to correct condition.
11. PD Improperly installed nailing strips.
AT None - should be installed as per manufacturer's recommendations.
CR Make appropriate repairs.
12. PD Inadequate underlayment.
AT None.
CR Make whatever repairs necessary to insure proper underlayment.
13. PD Improper crickets (installed by other trades).
AT Roofer will be responsible if he installs roof over improper crickets unless written documentation of the potential problem has first been submitted to the general contractor.
CR Install cricket correctly and repair or replace.
14. PD Tile appears to droop at eaves.
AT None.
CR Install proper spacer at eaves.
15. PD Crooked vertical and horizontal lines.
AT Vertical and horizontal lines should be straight within reason unless varied deliberately for effect.
CR Make necessary repairs to correct condition.

ROOFS - WOOD SHINGLES AND SHAKES

1. PD Type and grade not per plans and specifications.
AT None.
CR Make appropriate repairs or replace.
2. PD Improper exposure, edge lap or spacing.
AT Should be reasonably close to recommended dimensions.
CR Make necessary repairs.

3. PD Edges in line in adjacent courses.
AT Edges should not line up within 3 courses.
CR Repair as necessary.
4. PD Improper placement of felt strips when required.
AT Felt should not be visible through spacing.
CR Repair as necessary.
5. PD Improper nailing.
AT Nails should be galvanized and proper size for material used.
CR Repair as necessary.
6. PD Improper flashings and valleys.
AT Flashings and valleys should be size and type as recommended.
CR Repair as necessary.
7. PD Loose or uneven ridge and hip shingles.
AT Ridges and hips should be straight and uniform and secured.
CR Repair as necessary.
8. PD Roof jacks improper.
AT Roof jacks should be as designed for wood shingles or shakes.
CR Replace jacks if necessary.
9. PD Starter shingles not used.
AT None.
CR Correct as necessary.
10. PD Improper crickets (installed by other trades).
AT Roofer will be responsible if he installs roof over improper crickets unless written documentation of the potential problem has first been submitted to the general contractor.
CR Install crickets correctly and repair or replace.

SEPTIC TANK SYSTEMS

1. PD Septic system fails to operate properly.
AT Septic system should be built according to regulating Health Department.

- CR Correct as required unless problem caused by owner neglect or abuse.
2. PD Improper depth or improper backfill over leach field.
AT Should be as designed. Surface water should not stand over leach field.
CR Correct as necessary.
3. PD Pipe leaking.
AT None.
CR Repair as necessary.
4. PD Cleanout improper size or height.
AT Cleanout should allow pumping with standard equipment.
CR Correct as necessary.
5. PD Cover on tank or cesspool collapsed.
AT Cover should not collapse.
CR Repair unless owner caused.
6. PD System installed too close to structure.
AT None.
CR Should be placed as required by regulating agency.

SIDING (EXTERIOR)

Due to varying moisture conditions throughout Arizona, wood products will continue to expand and contract. This action is normal and beyond the contractor's control.

1. PD Uneven building siding.
AT Siding should be straight and flat within 3/8" in 10' and securely nailed.
CR Determine cause and correct.
2. PD Siding delaminating.
AT Sidings should not delaminate.
CR Replace affected areas.
3. PD Joints in siding not directly over stud.
AT Siding should match stud layout.
CR Correct so that both sheets of siding are supported by stud.

- 4. PD Improper or inadequate nailing on siding.
AT Siding should be nailed according to manufacturer's specifications.
CR Renail to meet proper nailing schedule.
- 5. PD Siding not properly caulked.
AT None - siding must be properly caulked.
CR Contractor shall determine cause and correct.

SITE WORK

- 1. PD Settling of ground around foundations, filled areas and trenches.
AT Excessively settled areas are unacceptable. Evaluation must be made on a case-by-case basis.
CR The contractor shall upon notification of this condition, fill and compact the affected area taking care to maintain the proper slope and drainage. The contractor will not be required to correct conditions caused by owners or landscapers unless the landscaping was included in the original contract.
- 2. PD Excessive settlement or cracking of floors, walks, drives or stems due to improper compaction.
AT Excessive settlement or cracking of floor is unacceptable.
CR If caused by improper compaction of the subsurface and/or improper compaction of trenches under floors, walks and drives, corrective action would be removal of the affected area, recompaction and replacement of the area involved.
- 3. PD Excessive cracking due to expansive soils.
CR Soil conditions are known or should be known to the contractor prior to construction. The technology is available and a state of the art exists to avoid problems arising from this condition. Affected areas will be corrected by the contractor.
- 4. PD Improper drainage of site.
AT Necessary grades shall be established to insure proper drainage away from the structure. No standing water should remain in the yard over 48 hours after a rain, unless city or county requirements specify

retention of storm water in yard. If a sump pump is included in the contract, all water should drain to the sump.

- CR The contractor should correct deviations from the established grades, but is not responsible for conditions caused by others not under his control after close of escrow.

SOLAR HOT WATER SYSTEMS

Solar hot water systems or heating and cooling systems shall be installed to I.M.P.S. Manufacturer's Installation Manual.

- 1. PD Solar system does not operate in accordance with above.
AT System should operate properly.
CR Installer to repair or replace components, parts or panels in accordance with manufacturer's warranties and/or guarantees if less than one year. Installer is to be held responsible for roof penetrations, or sagging roofs due to installation of solar systems for two years including interior damage caused by leaks.

SPRINKLERS, BUBBLERS AND DRIP SYSTEMS

Buyer assumes responsibility of sprinkler heads, bubbler heads and distribution tubing of drip systems after 90 days unless improper workmanship by the contractor can be shown.

- 1. PD System does not function.
AT System should function properly.
CR Determine cause and correct problem.
- 2. PD System does not cover area.
AT Heads should be placed to cover area intended with water pressure and volume available.
CR Make necessary corrections.
- 3. PD Trenches visible over piping.
AT Trenches should be properly filled and compacted.
CR Make repairs as necessary.

4. PD Heads not working properly.
AT Replace if defective once during first 90 days.
CR Heads damaged by mower or vandals not responsibility of contractor.
5. PD Bubblers not functioning properly.
AT None.
CR Adjust one time and instruct owner how to clean and adjust heads.
6. PD Clock not operating.
AT Clock should operate all systems.
CR Determine cause and correct condition. Replace clock if defective and within warranty.
7. PD Heads too low or too high.
AT Heads should clear top of grass when mowed and retract to clear lawnmower.
CR Adjust height of heads one time after grass is established if necessary.
8. PD Stolenized lawns not smooth.
AT Surface should be smooth.
CR Correct low spots and areas between stolens to obtain smooth even surface.
9. PD Boxes or covers not installed at solenoid valves.
AT Valves should be installed in proper box with covers.
CR Correct as necessary.
10. PD Operating instructions not provided.
CR Provide owner with operating instructions.

STUCCO

Stucco products should be mixed and installed to manufacturer's specifications.

1. PD Cracks in stucco.
AT Hairline cracks, if not excessive, are acceptable. If crack exceeds 1/16", it is unacceptable and should be repaired.
CR Determine cause of crack and repair.

2. PD Stucco falling or chipping around window or door frames.
AT Stucco should not fall away.
CR Determine cause and make necessary repairs.
3. PD Stucco too thin. Wire lath visible.
AT Wire lath showing through stucco unacceptable.
CR Make appropriate repairs.
4. PD Voids in stucco at beams, columns, etc.
AT Stucco should cover all surfaces neatly.
CR Repair so that all surfaces are covered.
5. PD Stud locations visible on stucco wall.
AT Studs should not be discernible.
CR Repair by proper method.
6. PD Weep screeds missing on frame walls.
AT As required by local government.
CR Install missing weep screeds.

SWIMMING POOLS

Swimming pool construction and design must meet or exceed the suggested minimum standards for swimming pools of the National Swimming Pool Institute, applicable building code requirements, as well as these standards. Spa construction and design is incorporated in these standards.

The construction site must be examined by the contractor. The consumer must be made aware of any existing conditions which could result in future problems, including but not limited to unstable soil, rain run off from adjacent structures, landscaping, grading and backwash disposal.

COPING

1. PD Coping cracks or becomes loose.
AT Coping shall not crack or come loose.
CR Builder shall replace or resecure any coping that has become loose or cracked.

2. PD Cracks appear in grout or grout becomes loose.
 AT Checks in grouting of coping joints are commonly due to normal shrinkage conditions and as such are normal maintenance responsibilities of the owner.
 CR Upon request by the owner, builder will repair loose grouting or cracks in grouting one time only within the first 12 months.

3. PD Crack in cantilever nose and cap tile grout under white cap at control joint.
 AT This is a normal condition.
 CR None.

DECKS - CONCRETE

1. PD Standing water.
 AT At the time of substantial completion all deck work shall be sloped to drain to the exterior edge and/or to deck drains all which must serve to adequately drain off water reaching the decks. Adequacy is judged by the absence of puddles either 2' in diameter or more and/or over 1/8" in depth 20 minutes after the addition of water to the decks.
 CR Builder shall revise and/or modify the deck work so as to provide the specified drainage.

2. PD Cracks.
 AT Shrinkage and minor movement cracks may occur in concrete deck work without adversely affecting its serviceability. Maximum allowable horizontal or vertical separations should not exceed 1/16" unless at designed joints where horizontal and vertical separations of up to 1/8" in 5' are acceptable.

- CR Builder may relieve the excess vertical separation at designed joints by grinding down the high side up to 1/8" and may fill the excess horizontal separation at these same joints by the use of an appropriate sealant. Cracks in other locations in excess of the standard shall be removed and replaced with as close a matching material as possible. Repositioning of slabs to correct the excess movement, of course, may also be done.

3. PD Irregular appearance and/or finish.
 AT All concrete deck work shall at least be equal in quality of workmanship as the sample or display of that finish displayed to owner. In the

absence of a display sample, owner and builder must rely upon the "average" consistency of quality found in similar work in the area.

- CR Builder shall provide at least the consistency of workmanship called for in the standard. Colors are to match as close as reasonably possible.

DECKS - DECK EQUIPMENT

1. PD Deck equipment such as slides, diving boards, ladders, etc., installed with the pool/spa are either loose, not level or vertical as the case may be, i.e., rails not parallel, etc.

- AT All deck equipment supplied and installed as part of the work shall be securely anchored, shall be mechanically firm as a unit and shall be installed in a true or level and aligned fashion when viewed by the untrained eye.

- CR Builder shall make the necessary changes and/or corrections to installation of the equipment to comply with the standards.

DECKS - WOOD

1. PD Customer not satisfied with design of finished product.
 AT A scale drawing of top and side of deck in relationship to pool/spa and structure, should be supplied to owner prior to start.

- CR If completed decking matches within reason the scale drawing, builder has no further responsibility. Otherwise builder shall take necessary corrective action.

2. PD Decking work sags, has excessive springiness or motion when in use or otherwise provides an unstable structure.

- AT At time of substantial completion, decking shall be firm and stable under all conditions of normal use.

- CR Builder shall take whatever corrective measures necessary to correct the above problem.

3. PD Inferior workmanship such as loose or rusty nails, splintered or split boards, numerous loose knot holes.

- AT During a period of thirty days following substantial completion, the deck shall not exhibit any of the above deficiencies.

- CR Builder shall take whatever corrective measures necessary to correct the above problems.

ELECTRICAL

- 1. PD Electrical boxes and conduits give an irregular appearance.
AT All electrical boxes, disconnects, etc., shall be installed so that the completed appearance of the equipment and connecting conduits shall follow imaginary horizontal and vertical lines wherever possible.
CR Builder shall insure that equipment is installed in level condition and connecting conduits adhere to the standard wherever possible.
- 2. PD Erratic performance.
AT All electrical circuits, controls, etc., shall be supplied and installed so as to provide safe-trouble free service.
CR Builder shall insure that all electrical work besides meeting the requirements of the NEC as well as local codes also meets the test of safe, trouble free service.

INTERIOR FINISH - FIBERGLASS/ACRYLIC

- 1. PD Finish has hairline cracking or checking.
AT The pool/spa finish shall be free of any hairline cracking, checking or blistering.
CR Builder shall take whatever corrective measures necessary to insure compliance with the standard.

INTERIOR FINISH - FIBERGLASS/ACRYLIC/PAINTED

- 1. PD Black spots, bubbles or surface separation.
AT The finish shall not develop any black spots, bubbles, surface separation or imperfections.
CR Builder shall repair or replace to bring surface to near new appearance.

INTERIOR FINISH - PLASTER

- 1. PD Cracks, tears that allow water passage out of the pool/spa.
AT The structure along with the interior lining shall form a single waterproof unit such that free standing water shall not pass from the interior to the exterior of the pool/spa.
CR Builder shall take whatever corrective measures necessary to insure the adequacy of the structure for purposes of maintaining a single waterproof unit.

- 2. PD Hairline checks or cracks in plaster.
AT Owner shall provide the water and allow the pool to be filled upon completion of plaster finish. Hairline checks, crazing that may thereafter appear in plaster are commonly due to normal shrinkage or flexing of the supporting structure.
CR Upon notification by the owner, builder shall repair any plaster cracks that appear within the first 12 months of substantial completion.
- 3. PD Rust stains.
AT There shall be no rust stains in plaster finish occurring from reinforcing steel or tie wires.
CR Builder shall remove rust stains and remedy reason for occurrence. Builder is responsible for matching of repair area with rest of surface as close as possible. Not responsible for rust stains caused by foreign objects placed in pool by others.
- 4. PD Rough plaster & highlighting.
AT At the time of the substantial completion inspection, owner should advise builder of any unacceptable plaster roughness, irregularities or highlighting.
CR Builder shall provide an acceptable plaster finish before substantial completion. After substantial completion builder's responsibility is limited to the following:

The builder shall not be responsible for plaster roughness caused by mineral deposits on pool surface and stains and/or roughness caused by improper use of pool water chemicals.
- 5. PD Trowel burns.
AT There shall be no trowel burn discoloration in the plaster finish.
CR Upon the request of the owner, builder shall one time only within the first ninety (90) days following substantial completion remove all trowel burn discoloration.
- 6. PD Shading.
AT At the time of substantial completion, owner shall notify builder as to any problems concerning shading of the plaster finish. It is normal for all pools to have some degree of shading or mottling of the plaster finish.

Colored plaster finishes can be expected to have an even more pronounced degree of shading or mottling because of factors inherent in colored finishes. Normal variations in pool water chemistry and ultraviolet action will cause some discoloration or shading of the plaster finish after completion and is considered normal. Calcium or alkali may precipitate out of pool water onto the plaster surface causing discoloration or roughness.

CR Builder shall provide an acceptable finish.

NOTE: Impurities in mined aggregate are inherent.

7. PD Spot etching
AT At the time of substantial completion, the owner shall notify the builder/plasterer of any problems concerning spot etching.
CR Builder shall provide an acceptable plaster finish prior to substantial completion. After substantial completion, builders/ plasterers are not responsible for damages generated by improper water chemistry.

COLORED PLASTER: It is the nature of colored plaster to accentuate characteristics normally found in white pool plaster. Mottling can be more pronounced, the plaster may exhibit pigment stains, streaks, fade out or get gradually lighter and the color shade may not be exactly as anticipated.

It is recommended the contractor advise the pool owner of these characteristics prior to finalizing the contract.

8. PD Calcium or whitness on colored plaster; calcium that has settled in checks or crazing cracks.
AT This is a normal occurrence. It is noticeable on colored plaster because of the color contrast.
CR Builder shall provide an acceptable plaster finish at substantial completion. After substantial completion, the builder shall not be responsible for plaster discoloration or stains on pool surfaces caused by improper water chemistry balances.

INTERIOR FINISH - VINYL LINER

1. PD Liner comes loose from fastening around top of pool.
AT The liner top shall be securely fastened around the top of the pool.

CR Builder will reinsert liner in fastening device and may at his option add additional locking pieces to insure a tighter fit.

2. PD Wrinkles or folds of material.
AT At the time of substantial completion of the pool, the liner shall be as wrinkle free as possible and shall have no folds whatsoever.

CR Builder will reset liner to insure compliance with standards and thereafter shall have no further responsibility for folds or wrinkles.

3. PD Tears or cuts in vinyl liner.
AT At the time of substantial completion, the structure along with the interior lining shall form a single waterproof unit such that free standing water shall not pass from the interior to the exterior of the pool. The interior lining shall be designed to provide for patching (sealing) of the vinyl liner with similar vinyl material and adhesive.

CR Builder shall take whatever corrective measures necessary to insure compliance with standards. After substantial completion of pool, builder will have no further responsibilities to tears and cuts in liner. Builder shall carry out all liner warranties on behalf of the manufacturer as specified in manufacturer's warranties.

MECHANICAL

1. PD Mechanical and/or electrical equipment supplied and installed does not perform as anticipated.

AT All mechanical and electrical equipment supplied shall be covered by a written manufacturer's or builder's performance warranty delivered to owner prior to the sale or at the time of substantial completion of the work. All such warranties shall be made available to the owner prior to the sale.

CR During the first 30 days following substantial completion of the work builder shall carry out all equipment warranties on behalf of the manufacturer at the site of the installation. Thereafter any manufacturer's warranties shall be carried out at builder's place of business.

2. PD Water, gas and waste lines to and from outside services do not fully perform the function intended and/or are not installed in accordance with established trade practices.

- AT All water, gas and waste lines to and from outside services shall be of adequate size and shall be run in accordance with established trade practices and applicable building code.
- CR Builder shall take whatever corrective steps necessary to comply with this standard.
3. PD Irregular appearance.
- AT All mechanical equipment supplied and installed by builder shall be done so that the completed appearance of the system(s) and piping shall follow imaginary horizontal and vertical lines wherever possible.
- CR Builder shall align the equipment in level plane and otherwise conform to the standard wherever practical.
4. PD Appearance of water leaks from any of the equipment or piping and/or the appearance of air bubbles entering thru a non-aerated inlet.
- AT All mechanical equipment and related components along with all piping thereto shall be air and water tight in the range of 1.5 times the normal operating pressure.
- CR Builder shall correct all such leakages in a proven manner so as to insure normal operation of the pool/spa and all related equipment.
5. PD Water in pipes or equipment has frozen causing damage.
- AT Builder has three options to provide freeze protection for the pipes and equipment from all normally anticipated climatic conditions:
- A. In mild freezing climates he may design the system so that by circulating the water all components and pipes are protected.
- B. In moderately severe climates the piping may be placed below the frost line and the equipment placed in a heated area.
- C. As an alternate for severe climates all piping and equipment subject to freezing shall be capable of being conveniently drained.
- CR Builder shall instruct owner in writing as to method of freeze protection designed into system. It shall be owner's responsibility to insure said method was properly carried out. Following this, in the event that freeze damage should occur, builder shall repair/replace freeze damage and properly reinstall the system in accordance with this standard so as to prevent the reoccurrence of freeze damage.
6. PD Clogged suction line.
- AT Suction lines to the recirculating pump shall not be stepped down in size on the way to the pump except at equipment connection. Openings from

- the suction line into the pool/spa shall be covered by suitable grates, screens, etc., so as to keep large objects from entering.
- CR Builder has no further responsibility once system has been shown to flow properly and the work has been substantially completed.
7. PD Pump will not prime.
- AT All pool/spa pumps shall be designed and/or installed in such a way that only moderate normal action is required on the part of the owner to commence pump operation after shutdown, maintenance or other service. Such moderate action should not require an owner to do more than fill certain components with an open garden hose, seal such openings, operate the necessary valves and turn the system on.
- CR Builder shall design and install such system and/or supply such pumping equipment so as to accomplish the standard.
8. PD Mechanical components damaged by system vacuum.
- AT All mechanical components shall be installed in such a way that normally created vacuum in system will not cause damage to any of the mechanical equipment.
- CR Builder will take whatever steps necessary to insure compliance with this standard.
9. PD Difficulty in servicing mechanical and electrical components.
- AT All pool/spa mechanical and electrical components shall be installed in a manner that allows normal access for ease of servicing.
- CR Builder shall install all mechanical and electrical components so as to accomplish the standard.
- SITE
1. PD Settling of ground around the improvement, utility trenches or other filled areas.
- AT Settling of ground around the improvements, utility trenches or other filled areas shall not interfere with water drainage away from the improvements.
- CR Upon request by the owner, builder shall fill excessively settled areas one time only during the 12 month period following substantial completion unless there is a continuing problem due to poor workmanship. The owner shall be responsible for any grass, shrubs or other landscaping affected by placement of such fill.

- 2. PD Standing water.
 AT At time of substantial completion the necessary grades and swales shall have been established to insure proper drainage away from the improvements. Site drainage is limited to the immediate grades and swales affecting the improvements. No standing or ponding of water should remain in this immediate area after a rain, except swales which may drain other areas after a rain. The possibility of standing water after an unusually heavy rainfall should be anticipated.
 CR The builder is responsible only for establishing the proper grades, elevations and swales. The owner is responsible for maintaining such grades and swales once they have been established by the builder.
- 3. PD Site cleaning, leveling, trench backfilling not satisfactory.
 AT All construction debris shall be removed. All site contours shall be graded so that they may be mowed with normal equipment (or if impractical so designated in the pre-construction plans as a "non-maintainable embankment") and rocks and boulders removed and/or covered with suitable topsoil (or if impractical so designated in the pre-construction plans as "upgraded rocky area").
 CR Builder shall provide a one time site clean-up and grading in accordance with the standard prior to the time of substantial completion.
- 4. PD Irregular contours in site and/or drainage passages.
 AT Site drainage shall, if carried on the surface of the ground, be carried in drainage swales of cross sectional contours that may be easily mowed over with normal equipment.
 CR Builder shall contour such swales in accordance with this standard. The owner is responsible for maintaining such swales once they have been established by builder.

SOLAR HEATERS

Plumbing lines in solar pool heaters should not have mineral build up with normal water and contractor is not liable for mineral build up due to water conditions and/or improper chemical imbalance.

- 1. PD System does not perform as anticipated.
 AT All solar equipment supplied shall be covered by a written manufacturer's or builder's performance warranty delivered to owner at

- CR time of substantial completion of the work. All such warranties shall be made available to owner prior to the sale.
 CR Builder shall take whatever corrective measures necessary to assure the specified performance.
- 2. PD Irregular appearance.
 AT All collectors, pipes, conduits, etc., to be secured and adequately braced. Piping and collectors shall follow imaginary horizontal and vertical lines wherever possible.
 CR Builder shall align and secure collectors and piping to conform to the standard wherever practical.
- 3. PD Solar collectors and/or system damaged by freezing.
 AT The collectors and related piping system shall be designed and installed so as to provide freeze protection in one or more of the following ways:
 - A. In mild freezing climates he may design the system so that by circulating the water all components and pipes are protected.
 - B. In moderately severe climates, the piping may be placed below the frost line and the equipment placed in a heated area.
 - C. As an alternate for severe climates all piping and equipment subject to freezing shall be capable of being conveniently drained.
 CR Builder shall instruct owner as to method of freeze protection designed into system. Builder shall repair/replace freeze damage and properly reinstall the system in accordance with the standard so as to prevent the reoccurrence of freeze damage.

SOLAR HEATERS - MECHANICAL

- 1. PD Solar pool heating collectors or plumbing damaged by freezing during a power failure.
 AT Solar pool heating systems must be equipped with a fail safe diversion valve allowing collectors to drain. Valve must return to a normally open position during a power failure or equipment malfunction.
 CR Builder shall take whatever corrective measures necessary to comply with this standard.

SOLAR HEATERS - ON THE BUILDING

- 1. PD Roof leaks due to improper penetration and/or sealant.

- AT Protection against water penetration around solar components or tie down penetrations shall be in accordance with local applicable building codes. Properly tested roof sealant shall be used per collector manufacturer's recommendation, so as not to interfere with the integrity of the existing waterproof membrane.
 - CR Builder shall take whatever steps necessary to insure waterproof penetration of the roof structure, to be maintained through its intended life cycle.
2. PD Roof leaks where supply and return piping penetrate eaves.
 - AT Hole made for pipes to penetrate eaves shall be protected by roof jacks (flashing material), so as not to interfere with the integrity of waterproof characteristics of the roof membrane.
 - CR Builder shall take whatever steps necessary to comply with this standard.
3. PD Roof under solar collectors showing signs of deterioration (rot).
 - AT All solar pool heaters shall be installed in such a way as to not encourage premature roof deterioration.
 - CR Builder shall take whatever necessary steps to correct any such deficiency.

STRUCTURE

1. PD Will not hold water.
- AT The structure along with the interior lining shall form a single waterproof unit such that free standing water shall not pass from the interior to the exterior of the pool/spa.
- CR Builder shall take whatever corrective measures necessary to insure the adequacy of the structure for purposes of maintaining a single waterproof unit.

NOTE: CURING PROCESS

Shotcrete or gunite shrinks as there is a drying out of the original moisture content. Shrinkage cracks occur because the surface of the gunite dries out faster than the underlying layers. These cracks are not structural cracks, they penetrate only the surface area (per ASTM C42-61 specifications).

Proper care and curing can keep this problem minimal. To minimize the shrinkage cracks the gunite must be kept moist. Gunite is porous and has the ability to absorb a large volume of water, much like a sponge. The gunite must be saturated with water until it is no longer absorbed. This process is to be repeated every two hours during the day for five days after installation.

Do not confuse gunite with horizontal flat work or concrete. There is no comparison.

2. PD Structure is cracked, torn or otherwise separated.
 - AT The structure shall be designed and built so as to withstand all normally anticipated loads or stresses.
 - CR Builder shall take whatever corrective measures necessary to insure the adequacy of the structure for purposes of maintaining a single waterproof unit.
3. PD Pool/spa is off level.
 - AT At the time of substantial completion of the work, the pool/spa shall be within +/- (plus or minus) 1/4" (1/2" from high to low) level when measured at the waterline tile. In the absence of such tile or when a vinyl lined interior is used or the unit is a one piece fiberglass pool, water level should be +/- 1/2" (1" from high to low) when measured to the uppermost surface of the structure.
 - CR Builder shall at his option relevel the structure, relevel the tile, coping or any combination of these to bring the pool/spa within tolerances.
4. PD Exterior and/or interior contours of irregular shape and/or profile.
 - AT All designs shall be in accordance with the applicable NSPI standards and all workmanship shall be within the construction tolerances allowed therein. It shall further be expected that the pool/spa shall maintain its shape/profile so as to remain within these tolerances, subject of course to the exclusions covered elsewhere herein.
 - CR Builder shall take whatever corrective measures necessary to insure compliance.
5. PD Pool shell or liner floats when pool water is removed.
 - AT All pools, unless specifically designed otherwise, are designed to remain relatively full of water at all times. At time of substantial completion, written instructions covering this, as well as how to drain the pool should

it be necessary for short periods of time shall be furnished owner along with instructions on who to contact should additional information or help be desired.

CR Builder shall provide the necessary technical know how to allow pool to be drained for short periods of time and shall go through the procedures with owner by physical demonstration.

TILE

1. PD Ceramic tile cracks or becomes loose.
AT Ceramic tile may check but shall not crack or come loose.
CR Builder shall replace or resecure any tile that has become loose or cracked.
2. PD Cracks appear in grout or grout becomes loose.
AT Checks in grouting or ceramic tile joints are commonly due to normal shrinkage conditions and as such are normal maintenance responsibilities of the owner.
CR Upon request by the owner, builder will repair loose grouting or cracks in grouting one time only within the first 12 months.
3. PD Tile out of level.
AT Tile shall be level within a tolerance of +/- 1/4" (1/2" from high to low) at time of substantial completion.
CR Builder may at his option relevel the structure, relevel the tile or any combination of these to bring the pool/spa tile level within tolerance.

WATER QUALITY

1. PD Water is not clear.
AT Circulation and filtration equipment provided shall meet the design requirements specified in the appropriate NSPI design standards. Complete written operating instructions shall be provided owner along with verbal instructions.
CR Evaluate owner's water quality problem from water samples or other available data provided to builder by owner. Provide free instructions covering all equipment furnished. Provide up to 1 hour free verbal assistance including time spent on owner water samples.
2. PD Poor surface skimming or circulation.

AT Inlets, skimmers, main drains, etc., shall be provided and installed in accordance with the appropriate NSPI design standard. Written operating instructions shall be provided owner.

CR In addition to complying with this standard the builder should where feasible provide replacement directional inlet inserts of varying size and/or angle and exchange these with owner to assist owner in attaining desired circulation.

VENTS, LOUVERS AND TURBINES

1. PD Leaks at vents, louvers or turbines.
AT No leaks acceptable other than wind driven rain.
CR Make proper repairs to correct condition.
2. PD Turbines not vertical.
AT None.
CR Install jacks with proper pitch for roof upon which installed.
3. PD Vents in overhang not screened.
AT Vents should be screened.
CR Correct condition.

WALLS, CURBS, FENCES, ETC.

1. PD Newly installed walls, curbs, fences, etc., do not perform the function for which they were designed.
AT Walls, curbs, fences, etc., shall be designed and built in accordance with established practices and applicable building codes in the area.
CR Walls, curbs, fences, etc., shall be designed and built in accordance with established practices and codes in the area.

WATERPROOFING AND VAPOR BARRIERS

Waterproofing and vapor barrier requirements vary according to area. Check with the local building official about specific requirements and methods approved in that area.

1. PD Leaks in foundation or basement walls.
 AT No leaks are acceptable.
 CR Determine cause of leaks and make necessary repairs, unless an owner made alteration has caused the leakage.
2. PD Leaks in conversation pit, or other areas designated to be constructed below floor level.
 AT Conversation pits should remain dry.
 CR Determine if leak is in foundation wall or chimney and make whatever repairs are necessary.
3. PD Leaks in gable end walls.
 AT Gable end walls should not leak.
 CR Make appropriate repairs.
4. PD Leaks through slump block walls.
 AT Slump block walls should not leak to inside wall under normal conditions.
 CR Make appropriate repairs.

WEATHER STRIP AND THRESHOLDS

1. PD Drafts around doors and windows.
 AT Some infiltration of moisture and dust is normally noticeable around doors and windows, especially during high winds and excessive rain. Excessive infiltration resulting from open cracks, poorly fitted doors and windows or poorly fitted weather stripping is not permissible.
 CR The contractor shall adjust or correct open cracks, poorly fitted doors or windows or poorly fitted weather stripping. If necessary, the contractor shall be responsible to adjust or replace the weather stripping or threshold only one time during the first year of occupancy.
2. PD Threshold leaks water.
 AT Thresholds should not leak.
 CR Make proper repairs to correct leak.
3. PD Weather strips missing or damaged on windows.
 AT None.
 CR Correct condition as necessary.

4. PD Gap between doors at T astragal on double doors.
 AT Excessive gap not acceptable.
 CR Correct as necessary.
5. PD Weather strip missing at T astragal.
 AT None.
 CR Install proper weather strip.

NOTES



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