



City of Phoenix

Minimum Property Standards

City of Phoenix Housing Department

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## **CITY OF PHOENIX MINIMUM PROPERTY STANDARDS**

### **I. PREFACE/INTRODUCTION**

The standards contained in this document establish the City of Phoenix Minimum Property Standards (MPS) for the acquisition, rehabilitation and/or new construction of single-family and multi-family properties that are federally funded through the City of Phoenix Housing Department. These standards are not intended to reduce, replace or exclude the requirements of any local or state building or housing codes, standards or ordinances that may apply.

The City of Phoenix Minimum Property Standards have been designed to ensure that all properties acquired, constructed or rehabilitated with federal funds can pass the Uniform Physical Conditions as set forth in 24 CFR 5.705 and which have been utilized in public housing inspections since 1998. The standards in this document apply to any housing projects that receive federal funding through the Housing Department made available for the purpose of acquiring, rehabilitating or constructing affordable housing. Many of the requirements and standards of this document exceed the requirements of the HUD Section 8 Housing Quality Standards previously utilized by the City when inspecting properties for compliance.

The intent of the MPS is to establish minimum standards and criteria for the health and safety of the home's occupants and to repair/renovate/construct quality housing units. All Single Family and Multi-family housing units including senior and special needs housing that receive federal assistance through the City of Phoenix may be inspected prior to, during construction, and upon completion of construction depending on the type of activity, for compliance with these requirements. A year-end warranty inspection may also be required on Single Family units that undergo housing rehabilitation and repair services. Multi-family housing units are inspected initially, upon completion, and at least annually throughout the affordability period for compliance with MPS requirements.

#### **Additional requirements:**

The City of Phoenix Minimum Property Standards requires compliance with:

- The International Residential Code (IRC 2009 edition), International Plumbing Code and International Mechanical Code, or the latest editions, and any applicable code required by the governing municipality; and the International Energy Conservation Code (IECC) 2009 or latest edition for all newly constructed and reconstructed homes.
- The National Energy Five Star Performance Standards of 86. All new residential and gut rehab buildings up to three stories shall be designed to meet these standards and all procedures used for this rating (86) shall comply with the National Home Energy

Rating System guidelines. Energy Star is a system of certifying a certain level of building performance with respect to energy efficiency.

- All units built before 1978 are required to comply with the lead based paint regulations as described in 24 CFR Part 35. Units built before 1978 shall be tested by certified lead based paint professional, if visual cracking, scaling, peeling, chipping or loose paint is discovered during the inspection.
- Multi-Family units constructed prior to 1967 where asbestos is suspected or where reasonable evidence of asbestos exists will be required to have an asbestos certificate to certify that no hazardous materials are present, including finishes, adhesives or non-encapsulated building materials. The discovery of any asbestos will require total and verified remediation prior to continuation of any further construction activities.
- Other governing entities such as a Homeowner's Association, local and federal regulations pertaining to particular zoning, traffic, drainage, floodplains and fire must also be observed.
- The U.S Department of Housing and Urban Development (HUD) Minimum Property Standards at 24 CFR Part 200.925 and 24 CFR Part 200.926.
- ADA Standards for Accessible Design found at 24 CFR Part 36.
- Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against the handicapped in any federally assisted program. Single family units to be constructed will be made accessible as needed upon request of a prospective buyer if the nature of the disability of an expected occupant so requires in accordance with the Section 504 requirements of CFR 8.29.
- Multi-family dwellings, as defined at 24 CFR 100.201 as a building consisting of four (4) or more units, to be constructed must also meet the design and construction requirements at 24 CFR 100.205, which implement the Fair Housing Act (42 USC 3601-3619).

### **Reader Advisory**

Readers of this document are advised that this document alone is not detailed enough to describe all of the codes, and standards which apply to the housing activities identified here in. It is advised that contractors and developers carrying out federally funded housing projects have copies of the various codes and standards referenced in this document, and a working knowledge of how to meet them.

### **Appeal Process**

The City of Phoenix offers an appeal process by which developers submitting requests for funding may get a 'second opinion' about an interpretation of planned projects or interim inspections. The applicant may request an advisory opinion from the respective City department. The City will convene an advisory board on an as needed basis consisting of at least one city staff person, one contractor and one architect. The City will require at a minimum 10 business days to bring the panel together and review the appeal. The process gives applicants the chance to present their views to

knowledgeable people. The appeal process may only be invoked after the City department and applicant have discussed the project with no resolution.

An applicant who wishes to appeal to the City should submit a written request to the Deputy Director in the department overseeing the project. The request should include a short description of the subject of the appeal.

## II. DEFINITIONS

**Egress** – A permanent and unobstructed means of exiting from the dwelling in an emergency escape or rescue situation

**Energy Star Rated** – Includes all systems, components, equipment, fixtures and appliances that meet strict energy efficiency performance criteria established, as a joint effort, by the federal Environmental Protection Agency, the U.S. Department of Energy and HUD and that carry the Energy Star label as evidence of meeting this criteria. Visit [www.energystar.gov](http://www.energystar.gov) for more information.

**Habitable Space (Room)** – Spaces (rooms) within the dwelling for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces, and similar areas (rooms) are not considered habitable spaces.

**Multi-Family Unit** – A tenant-occupied residence in a project which consists of not less than five (5) dwelling units on one site.

**Single Family Unit** – A one-to-four family residence detached or attached to other housing structures.

**Single Room Occupancy (SRO)** – Housing consisting of single-room dwelling units that are the primary residence of its occupants. If the SRO project involves the conversion of non-residential space, or reconstruction, each unit must contain either food preparation or sanitary facilities (and may contain both). If the SRO project involves acquisition or rehabilitation of an existing residential structure or hotel, neither food preparation nor sanitary facilities are required to be in the units. If the units do not contain sanitary facilities, the building must contain sanitary facilities that are shared by tenants. SRO does not include facilities for students.

**Top 8 Code Violations** – Blight conditions in neighborhoods can negatively impact property values, encourage crime and discourage homeowners, business owners and tenants from maintaining their own properties. The City has identified the following as the Top 8 Code Violations:

- **Vegetation** – Property owners are responsible for keeping their properties, and the adjacent rights-of-way, free of dead or dried vegetation (weeds, tall grass, tumbleweeds, shrubs, trees, palm fronds, etc). All dead or dried vegetation must be removed and disposed of properly.
- **Inoperable Vehicles** – Inoperable vehicles must not be visible from beyond the property line. An inoperable vehicle is one that is not equipped with parts that are required to legally and safely operate on public streets and/or cannot be driven under its own power.
- **Junk, Litter and Debris** – Junk, litter and debris cannot be left on the property. It must be disposed of properly.



- **Vacant and Accessible Structures** – Property owners are responsible for maintain structures and grounds of a property. All vacant structures must be kept secure so they cannot be opened from the outside.
- **Outside Storage** – Outside storage on residentially zoned properties that can be seen from beyond the property line is not allowed.
- **Fences in Disrepair** – Fencing and screening walls must be structurally sound and made from the same materials. They also must be maintained so that they are free from deterioration and blight.
- **Parking** – Designated parking and maneuvering areas must be dust-proofed according to specifications.
- **Graffiti** – Graffiti must immediately be removed from all sidewalks, walls, fences, signs and other structures or surfaces visible from beyond the property line.

### **III. PROJECT MANAGEMENT AND COORDINATION**

#### **A. Related Documents**

1. Drawings and general provisions of the contract, including general and supplemental conditions apply to this section.

#### **B. Summary**

1. This section specifies requirements for project coordination including, but not limited to the following:
  - a. Administrative and supervisory personnel;
  - b. General installation provisions;
  - c. Cleaning and protection; and
  - d. Insurance requirements
2. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.

#### **C. Coordination**

1. Coordination: Coordinate activities included in various sections to assure efficient and orderly installation of each component. Coordinate operations included under different sections that are dependent on each other for proper installation and operation.
2. Coordination: Where installation of one component depends on installation of other components before or after its own installation, schedule activities in the sequence required to obtain the best results. Where space is limited, coordinate installation of different components to assure maximum accessibility for maintenance, service and repair.
3. Administrative Procedures: Coordinate scheduling and timing of administrative procedures with other activities to avoid conflicts and ensure orderly progress. Such activities include, but are not limited to:
  - a. Preparation of owner selection checklist;
  - b. Progress and draw request meetings; and
  - c. Project closeout activities.
4. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water and materials.

#### **D. Permits, Fees and Inspections**

1. It shall be the contractor's responsibility to pay for and coordinate all inspections, permits and fees required and to receive approval from all authorities having jurisdiction over all aspects of the construction as required by project specifications and building code.

2. Inspections: Coordinate construction with inspections and tests to minimize uncovering completed construction. No additional costs will be allowed for uncovering completed construction for the purpose of inspections and tests.

**E. Component Installation**

1. The installer of each component shall inspect the substrate and conditions under which work is performed. Do not proceed until unsatisfactory conditions have been corrected.
2. Comply with manufacturer's installation instructions and recommendations, to the extent that they are not more stringent than requirements in the project specifications.
  - a.No variation from the manufacturer's written instructions will be allowed without explicit written permission from the City of Phoenix.
3. Inspect material immediately upon delivery and again prior to installation. Reject damaged and defective items.

**F. Visual Effects**

1. Provide uniform joint widths in exposed work. Arrange joints to obtain the best effect. Refer questionable choices to the City of Phoenix for decision.
  - a.Recheck measurements and dimensions before starting installation.
  - b.Install each component during weather conditions and project status that will ensure the best results. Isolate each part from incompatible material as necessary to prevent deterioration.
2. Where mounting heights are not indicated, install components at standard heights for application indicated. Where applicable, comply with ADA guidelines for accessibility. Consult with City of Phoenix when questions arise.

#### **IV. PRODUCT REQUIREMENTS**

##### **A. Definitions**

1. Products are items purchased for incorporation in the work, purchased for the project.
2. Named products are items identified by manufacturer's product name, including make or model designation.
3. Materials are products that are shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed or installed as part of the work.
4. Equipment is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

##### **B. Products**

1. To the fullest extent possible, provide products of the same kind, from a single source.
  - a. When the contractor has the option of selecting between two (2) or more products, the product selected shall be compatible with products previously selected.
2. Except for required labels and operating data, do not attach manufacturer's nameplates or trademarks on surfaces exposed to view in occupied spaces or on the exterior.
  - a. Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an inconspicuous accessible surface. The nameplate shall contain the following information and essential operating data:
    1. Name of product and manufacturer
    2. Model and serial number
    3. Capacity
    4. Speed
    5. Ratings
3. Deliver, store and handle products in accordance with manufacturer's recommendations, using methods that will prevent damage, deterioration and loss.

##### **C. Product Selection**

1. Provide products that comply with the work specifications, are undamaged and unused at installation.
2. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

3. Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
4. All products specified by name are assumed to be accompanied by the term 'or preapproved equivalent'. Comply with provisions for substitutions to obtain approval for use of an unnamed product.
5. When specifications list products or manufacturers that are available and may be used, but do not restrict the contractor to use these products only, the contractor may propose any product that complies with contract requirements. Comply with provisions for substitutions to obtain approval for the use of an unnamed product.

**D. Substitutions**

1. When the contractor proposes an alternative product or manufacturer for a proprietary specification, the following items must be submitted to the City at the time of the initial bid:
  - a. Installation instructions; and
  - b. Manufacturer's warranty.

**E. Requirements**

1. Where specifications describe a product, listing characteristics required, with or without the use of a brand name, provide a product that provides the characteristics and otherwise complies with the requirements.
2. Where specifications require compliance with performance requirements, provide products that comply and are recommended for the application. Manufacturer's recommendations may be contained in product literature, or by certification of performance.

**F. Standards**

1. Where specifications require compliance with a standard, select a project that complies with the standard specified.
2. Where specifications require matching a sample, the Architect's decision on whether a proposed product matches is final. Where no product matches and complies with other requirements, comply with provisions for substitutions for selection of a matching product in another category.
3. Where requirements include the phrase 'as selected from manufacturer's standard colors, patterns, textures...' or similar phrase, select a product that complies with other requirements. The architect will select color, pattern and texture from the product line selected.

**G. Installation**

1. Comply with manufacturer's instructions and recommendations for installation of products. Anchor each product securely in place, accurately located and aligned with other work. Clean exposed surfaces and protect to ensure no damage and/or deterioration at time of substantial completion.

**H. Materials and Methods**

In all instances, rehabilitation and new construction, the end product shall follow and meet the City's code specifically related to materials and methods. In the event that there is no City code for a rehabilitation or new construction activity, the products used shall be installed per the manufacturer's instructions and industry standard.

**V. MINIMUM ACCEPTABLE STANDARDS – SUBSIDIZED SINGLE FAMILY OR MULTI-FAMILY HOUSING AND ACQUISITION OF NON SUBSIDIZED EXISTING MULTI-FAMILY HOUSING (NO REHABILITATION OR CONSTRUCTION)**

**A. Overview/Applicability**

This minimum standard applies to single family and multi-family rental housing units that currently receive federal assistance through a housing subsidy or voucher, or were acquired/developed/rehabilitated using federal assistance. Examples of projects which fall into this category include projects funded through a Tenant Based Rental Assistance (TBRA) program which requires annual inspections. HUD requires that all assisted units pass an inspection that addresses all of the inspectable items included in the notice setting forth the Physical Condition Scoring Process under HUD's Uniform Physical Condition Standards, published at 24 CFR 5.705. Units are inspected by the City for compliance with the MPS at least annually or upon initial move-in by a resident who is qualified to receive rental assistance. When the rental housing units are inspected, inspectors will check for the most common neighborhood code blight violations as part of the inspection. The most common violations are vegetation, inoperable vehicles, junk and debris, vacant and accessible structures, outside storage, fences in disrepair, parking and graffiti. Housing units assisted with federal assistance for the purpose of rental housing are required to meet the minimum property standard in their as-is condition. If the housing unit does not meet the minimum property standard in an as-is condition, federal assistance will not be provided. Providers will be required to use the Uniform Physical Condition Standards Inspection form found in Exhibit A. This standard equals or exceeds the Housing Quality Standards (HQS) of HUD.

All housing units receiving assistance through the City of Phoenix must be free of all health and safety defects. If at the time of inspection any health and safety violations are found, participants will have 24 hours to correct noted violations.

The violations include:

- Refrigerator not working;
- *Only* toilet is clogged;
- *Bottom toilet* in a two-story is clogged;
- Kitchen sink clogged in a two-story unit;
- No electricity to the cooler or refrigerator;
- Water line leak;
- Leaking water

heater • Broken

windows;

Broken entry locks; and

- Lock change in the case of an emergency

**B. Minimum Standards for Basic Equipment and Facilities**

1. **Kitchens** – Every dwelling unit, except for SROs, shall have a kitchen room or kitchenette equipped with the following:
  1. **Kitchen Sink** – It shall contain an approved kitchen sink, properly connected to both hot and cold running water lines, under pressure and maintained in working order.
  2. **Stove** – It shall contain a stove (gas or electric), properly connected to the source of power, maintained in working order and capable of supplying the service for which it is intended.
  3. **Refrigerator** – It shall contain a refrigerator, with a minimum size of 18 cubic feet, properly connected to the source of power, maintained in working order and capable of supplying the service for which it is intended.
  4. **Tenant Supplied Appliances** – In properties where tenants are required to furnish their own appliances, the landlord shall furnish sufficient space and all required electrical/gas hookups, properly installed, to facilitate the use of said appliances.
2. **Toilet Room Required** – Every dwelling unit shall contain a room which is equipped with a flush water closet and a properly installed lavatory. All lavatories shall be properly connected to hot and cold running water, under pressure, and shall be properly maintained in working order. All flush water closets shall be properly connected to the water supply, under pressure, and shall be maintained in working order.
3. **Shared Toilet Facilities** – Shared toilet rooms shall be equipped with a flush water closet and lavatory basin and shall be connected and maintained as provided in Section 2 above. In SROs, at least one (1) toilet and one (1) lavatory basin, properly connected as set forth above, shall be supplied for each eight (8) persons or fractions thereof, residing within a rooming house, including members of the operator's family, whenever they share the use of said facilities; provided that in rooming houses where rooms are let only to males, flush urinals may be substituted for not more than ½ of the required number of toilets.
4. **Bath Required** – Every dwelling unit shall contain a bathtub and/or shower except in the case of SROs with communal bathroom facilities.

Potable water supply, piping, water discharge outlets, backflow prevention devices or similar equipment shall not be located as to make possible their submergence in any contaminated or polluted liquid substance. Said bathtub and/or shower may



be in the same room as the flush water closet and lavatory or said bathtub and/or shower may be in a separate room.

In all cases, these facilities shall be properly connected to both hot and cold running water lines, under pressure, and shall be maintained in working order.

In rooming house type structures, at least one (1) bathtub and/or shower, properly connected as set forth above, shall be supplied for each eight (8) persons or fractions thereof residing within room house, including members of the operator's family whenever they share the use of said facilities.

- 5. **Privacy in Room Containing Toilet and Bath** – Every toilet and bath shall be contained in a room or within separate rooms, which affords privacy to a person within said room or rooms.

Toilets and bathrooms shall have doors with a privacy-type lock and such doors, lock and hardware shall be operable and maintained in working order.

- 6. **Location of Communal Toilets and Baths** – Every communal bath required to be provided in accordance with other provisions, shall be located within a room(s) accessible to occupants of each dwelling unit sharing such facilities, without having to go through a dwelling unit of another occupant and without going outside of the dwelling.

- 7. **Hot and Cold Water Lines to Bath and Kitchen** – Every dwelling shall have supplied water-heating facilities which are properly installed; are maintained in working condition and free of leaks; are properly connected to required hot water lines; and are capable of heating water to be drawn for every bath as well as general usage.

Hot water storage associated with water heating facilities shall not be less than the following minimum capacities:

One (1) dwelling unit	30 gallons
Two (2) dwelling units	40 gallons
Three (3) or more dwelling units or rooming houses	50 gallons

Sizes and/or number of water heaters shall be based upon the number of units served. No water heaters shall be allowed in bathrooms or closets. All water heaters shall be property vented and sealed and shall be equipped with a pressure relief valve and drip leg.

The Housing Department and/or the applicable local building inspection division may adjust the above required capacities upwards or downwards based on the type and recovery time of the water heater being installed.

8. **Connection of Sanitary Facilities to Water and Sewer/Septic System** – Every kitchen sink, toilet, lavatory basin and bathtub/shower shall be maintained in working condition and be properly connected to an approved water and sewer or septic system.

9. **Exits** – Every exit from every dwelling and/or dwelling unit shall comply with the following requirements:

1. It shall be kept in a state of maintenance and repair;
2. It shall be unobstructed at all times;
3. All stairways and steps of two (2) or more risers shall have at least one (1) handrail, and all stairways and steps which are five (5) feet or more in width or which are open on both sides shall have a handrail on each side;
4. Every dwelling unit shall have two (2) independent means of egress;
5. All handrails shall be not less than 30" vertically above the nose of the stair treads and not less than 36" above the stairway platform;
6. All balconies and platforms which are 30" or more above grade, shall have a protective railing not less than 36" in height above the balcony or platform level;
7. All multiple dwellings, one (1) and two (2) family residences exempted, shall have a second exit stairway or approved fire escape available to all occupants from the second floor and above all such structures; and
8. All stairs and steps shall have a rise height of not more than 8" and a tread width of not less than 9". This requirement may be waived by the City of Phoenix if in an existing structure it would be impossible or cost-prohibitive to meet this requirement. In such cases, new stairs could be installed which have the same rise and run as the existing stairs.

10. **Smoke Detectors** – All residential structures shall have U.L. approved hard wired smoke detectors or battery operated smoke detectors properly installed and located near bedrooms and sleeping areas. All smoke detectors shall be operable.

**C. Minimum Standards for Light, Ventilation and Heating**

1. **Required Window Area** – Every habitable room, provided such rooms are adequately lighted, shall have at least one (1) open air space. The minimum

total window area, measured between stops, for every habitable room shall be as follows:

- a. 1/12 of the floor area if two (2) or more separate windows exist, or
- b. 1/10 of the floor area if only one (1) window exists;
- c. A minimum of 12 square feet of window area is required in habitable rooms other than kitchens; and
- d. A kitchen may pass without a window area provided there is a mechanical means of ventilation which is maintained in working order.

Whenever the only window in a room is a skylight type window at the top of the room, the total window area of such skylight shall be equal to at least 15% of the total floor area of the room. Skylight type windows, if less than 15% of the total floor area, shall be increased to 15% of the total floor area unless another window is to be installed which will provide adequate light and ventilation.

2. **Adequate Ventilation Required** – Every habitable room shall have at least one (1) window or skylight which can easily be opened, or other such device as will adequately ventilate the room. The total operable window area, in every habitable room, shall be equal to at least 50% of the minimum window area size or minimum skylight type window size as required above, except where there is supplied some other device affording adequate ventilation.
3. **Light and Ventilation Requirements for Bathrooms, Toilet Rooms and Kitchens** – Every bathroom, toilet room, kitchen and other similar room shall have a window area of not less than 4 square feet. Every bathroom, toilet room and kitchen shall comply with the light and ventilation requirements for habitable rooms contained above, except that no window shall be required in adequately ventilated bathrooms, toilet rooms or kitchens equipped with a ventilation system installed in accordance with the current building code.
4. **Electric Outlets and Service Required** – Where there is suitable electricity available from supply lines, which are not more than 300 feet away from a dwelling, all existing dwellings shall be supplied with electrical services.
  - a. Every habitable room within a dwelling shall contain **at a minimum**, two (2) separate and remote wall type electric convenience outlets. Habitable rooms over 120 square feet shall contain, **at a minimum**, three (3) separate and remote wall type electric convenience outlets. All newly installed outlets shall be of the grounded type. Temporary wiring or extension cords **shall not be used as permanent wiring**.

- b. Every habitable room shall have at least one (1) ceiling or wall type electric light fixture, controlled by a wall switch, or a wall type grounded electric convenience outlet controlled by a remote switch.
- c. Every toilet room, bathroom, laundry, furnace room and hallway shall contain at least one (1) supplied ceiling or wall type electric light fixture controlled by a wall switch, and at least one (1) wall type grounded electric convenience outlet. Wall type convenience outlets used in bathrooms and kitchens shall be the GFCI type.
- d. Every kitchen shall be wired to meet the requirements of the NEC, based on the size and layout of each individual kitchen. GFCI's should also encompass the counter top area.
- e. All heavy duty appliances i.e. window air conditioners, freezers, refrigerators, electric stoves, washers, electric dryers, microwaves, etc. shall be supplied with their own proper outlet on separate circuits, as applicable.
- f. Receptacle convenience outlets installed on the exterior of the structure or on open porches, breezeways, garages or utility rooms shall be of the GFCI type.
- g. A wall switch shall control all wall and/or ceiling type lighting fixtures, except that porcelain type fixtures such as those used in attics may be controlled with a proper pull chain. All old pendant type lighting fixtures shall be removed and replaced with properly installed non-pendant type fixtures.
- h. All electric lighting fixtures installed on the exterior shall be of the type approved for exterior use.
- i. All broken and/or missing switch plates and/or receptacle plates shall be replaced.
- j. All outlets and fixtures shall be properly installed, shall be maintained in working condition, and shall be connected to the source of electric power in a proper manner and shall be in accordance with the electrical code of the city and/or the NEC, as applicable.
- k. If a unit does not have a central air-conditioning system and central air will not be installed, at a minimum, a proper grounded outlet shall be installed under one (1) window in each habitable room to allow the occupant to install window air conditioning units.
- l. All electric panel boxes shall be properly labeled.
- m. The minimum electrical service for each dwelling and/or dwelling unit shall be 150 amps, or as adjusted and approved in writing by the City of Phoenix Inspector.

5. **Heating Facilities** – All heating facilities shall be properly installed, be maintained in working condition and be capable of adequately heating all

habitable rooms, bathrooms and toilet rooms contained therein, or intended for use by the occupants thereof, to a temperature of at least 70 degrees Fahrenheit at a distance three (3) feet above the floor. Every supplied central heating system shall comply with all of the following requirements:

- a. The central heating unit shall be safe and in good working condition;
- b. Every heat duct, steam pipe and hot water pipe shall be free of leaks and shall function so that an adequate amount of heat is delivered where intended;
- c. Every seal between any of the sections of a hot air furnace shall be airtight so noxious gases and fumes will not escape into the heat ducts;
- d. If there is no existing flue liner, a double-walled metalbestos liner shall be installed. The liner shall meet or exceed the requirements of the local building code and shall be installed according to same; and
- e. All fuel burning heat systems shall be inspected by a qualified furnace inspector to determine if the unit is safe, free from carbon monoxide leakage and capable of supplying heat as required above.

Each dwelling and/or dwelling unit shall be supplied with its own heating system. Any dwelling and/or dwelling unit having as its only source of heat space heaters or floor furnaces shall have such units removed and replaced with a proper central heating system.

All mechanical work shall be inspected and approved by the City's local mechanical inspector and/or the building inspection department or by a person knowledgeable in mechanical heating systems.

**6. Lighting of Public Halls and Stairways**

- a. Public halls and stairways in every dwelling containing two (2) to four (4) dwelling units shall be provided with convenient wall-mounted light switches controlling an adequate lighting system that will provide at least five (5) foot candles of illumination on all parts thereof, and which may be turned on when needed. An emergency circuit is not required for this lighting.
- b. Public hall and stairways in every dwelling containing five (5) or more dwelling units shall be lighted at all times with an artificial lighting system. Said system shall provide at least five (5) foot candles of illumination on all parts thereof at all times by means of properly located electric light fixtures, provided that such artificial lighting may be omitted from sunrise to sunset where an adequate amount of natural light is provided. Whenever the occupancy of the building

exceeds 100 persons, the artificial lighting system as required herein shall be on an emergency circuit.

- c. The required intensity of illumination shall apply to both natural and artificial lighting.

- 7. **Screens Required** – Every window opening to outdoor space, which is used or intended to be used for ventilation, shall be supplied with screens covering all of the window areas required for ventilation. The material used for all such screens shall be not less than 16 mesh per inch and shall be properly installed, maintained and repaired to prevent the entrance of flies, mosquitoes or other insects.

Half screens on windows may be allowed, provided they are properly installed and are bug and insect tight.

- 8. **Supplied Heating to Dwellings or Parts Thereof** – Every owner or operator of any dwelling who rents, leases or lets for human habitation any dwelling unit contained within such dwelling on terms either expressed or implied to supply or furnish heat to the occupants thereof shall maintain therein a minimum temperature of 70 degrees Fahrenheit at a distance of three (3) feet above the floor at all times.

Whenever a dwelling is heated by means of a furnace, boiler or other heating apparatus under the control of the owner or the operator, in the absence of a written contract or agreement to the contrary, said owner or operator shall be deemed to have contracted, undertaken or bound himself to furnish heat in accordance with the provisions of this section to every dwelling unit which contains radiators, furnace heat, duct outlets or other heating apparatus outlets and to every communal bathroom, communal toilet room and/or communal laundry room located within such dwelling.

- a. Every central heating unit, space heater, water heater and cooking appliance shall be located and installed in such a manner so as to afford protection against involvement of egress facilities or egress routes in the event of uncontrolled fire in the structure;
- b. Every fuel burning heating unit or water heater shall be effectively vented in a safe manner to a chimney or duct leading to the exterior of the building. The chimney duct and vents shall be of such a design as to assure proper draft, shall be adequately supported and shall be kept clean and in a state of maintenance and repair;
- c. No fuel burning furnace shall be located in any sleeping room or bathroom unless provided with adequate ducting for air supply from the exterior and the combustion chamber for such heating unit shall be

sealed from the room in an airtight manner. Gas water heaters are prohibited in bathrooms, sleeping rooms and closets;

- d. Every steam or hot water boiler and every water heater shall be protected against overheating by appropriate temperature and pressure limit controls; and
  - e. Every gaseous or liquid fuel burning heating unit and water heater shall be equipped with electronic ignition or with a pilot light and an automatic control to interrupt the flow of fuel to the unit in the event of failure of the ignition device. All such heating units with plenum shall have a limit control to prevent overheating.
9. **Energy Conservation** – All structures shall comply with energy conservation measures to the maximum extent feasible. These measures include, but are not limited to:
- a. Installation of insulation or the installation of additional insulation, especially in the attic/ceiling areas. The recommended level for ceiling insulation is to an R-30 where ever possible;
  - b. Weather stripping;
  - c. Caulking;
  - d. Replacement of ineffective or inefficient heating/cooling systems; or
  - e. Replacement of single pane window units with thermal units or the installation of combination storm windows if the single window units will not be replaced.

#### **D. Minimum Standards for Maintenance**

1. **Maintenance of Foundations, Exterior Walls, Roofs, Soffits & Fascia** – Every foundation, exterior wall, roof, soffit, fascia and all component parts shall be weather tight, watertight, rodent proof and insect proof and shall be kept in a state of maintenance and repair.
  - a. All exterior surface material shall be protected from weather and the elements by lead-free paint or other protective coatings in accordance with acceptable standards. The exception to painting shall be all types of exterior materials acceptable to weathering without deterioration. All siding material shall be kept in a state of maintenance and repair.
  - b. In units built before 1978, treatment of all applicable surfaces (interior and exterior) will be in full compliance with the Lead Based Paint regulations as found at 24 CFR Part 35 including all future amendments as published by HUD.
2. **Maintenance of Interior Walls, Floors, Ceilings, Doors and Windows** – Every interior partition, wall, floor, ceiling, door, window and all component parts shall be kept in a state of maintenance and repair and shall be

maintained in such a manner so as to be capable of being kept in a clean and sanitary condition.

All interior doors shall be capable of affording the privacy for which they were intended.

3. **Rainwater Drainage from Roof** - All rainwater shall be so drained and conveyed from every roof so as not to cause dampness/damage to walls, ceilings or floors of any habitable rooms, bathrooms, toilet rooms, laundry rooms or any other type of room therein. If present, all rainwater draining devices such as gutters and downspouts shall be kept in a state of maintenance and repair. Ground areas around buildings shall be sloped away from the foundation walls to eliminate low areas where standing water may collect.

4. **Maintenance of Windows and Exterior Doors** – Every front, rear and side door shall be not less than 2'8" in width and not less than 6'6" in height, except where larger doors and doorways are required to accommodate handicapped access. In existing structures, if replacement to meet these requirements would be impossible or cost-prohibitive said requirements may be waived in writing.

Every window and exterior door shall be substantially tight and rodent proof and be kept in a state of maintenance and repair. In addition, the following requirements shall be met:

- a. All exterior doors to the outside or to a common public hall shall be solid core and be equipped with adequate security locks. All windows accessible from ground level without the aid of mechanical devices shall have a security lock;
- b. Every window sash shall be fully equipped with glass windowpanes which are without cracks or holes and all panes shall be secured with an adequate amount of putty. Said putty shall not be cracked, broken or missing;
- c. Every window sash shall be in good condition and shall fit tightly within its frame;
- d. Every window, other than a fixed window, shall be capable of being easily opened and shall be held in position by window hardware;
- e. Every exterior and interior door, when closed, shall fit well within its frame;
- f. Every exterior and interior door, door hinge and door latch and/or lock shall be maintained in good working condition;
- g. Every window, door and frame shall be constructed and maintained in such relation to the adjacent wall construction so as to exclude rain as



completely as possible and to maximum extent feasible substantially exclude wind from entering the dwelling or structure.

5. **Maintenance of Stairways and Porches** – Every interior and exterior stairway, every porch and every appurtenance thereto shall be so constructed as to be safe to use and capable of supporting the load that normal use may cause to be placed thereon; and shall be kept in sound condition and in a state of maintenance and repair including compliance with Lead Based Paint Regulations if applicable.
6. **Maintenance of Supplied Plumbing Fixtures** – Every supplied plumbing fixture and water and waste pipe shall be properly installed in accordance with the plumbing code of the City of Phoenix and maintained in safe sanitary working condition free from leaks, defects and obstructions.
7. **Maintenance of Bathroom, Toilet Rooms, Kitchen and Utility Room Floors** – Every bathroom, toilet room, kitchen and utility room floor surface shall be constructed and maintained so as to be substantially impervious to water and so as to permit such floor to be easily kept in a clean and sanitary condition.

Indoor-outdoor type carpeting, when properly installed, shall be allowed in bathrooms, toilet rooms, kitchens and utility rooms.

8. **Safe and Effective Functioning of Supplied Facilities** – Every supplied facility, piece of equipment or utility which is required under this section shall be constructed or installed so it will function properly and shall be maintained in working condition.

#### **E. Minimum Space, Use and Location Requirements**

1. **Minimum Ceiling Height** – Wherever possible, no habitable room in a dwelling or dwelling unit shall have a ceiling height of less than 7'6". At least ½ of the floor area of every habitable room located above the first floor shall have a ceiling height of 7'6" and the floor area of that part of any room where the ceiling height is less than 5' shall not be considered as part of the floor area of the room for the purpose of determining maximum floor area.
  1. A ceiling height of a minimum of 7' is acceptable in bathrooms, toilet rooms, hallways, utility rooms and kitchens.
  2. All rooms, except kitchen and/or kitchenettes and baths, shall have a minimum width of 7'.

2. **Maintenance of Sleeping, Bath and Toilet Rooms** – No dwelling or dwelling unit containing two (2) or more sleeping rooms shall have such room arrangement that access to a bathroom or toilet room intended for use by the occupants can be had only by going through another sleeping room or bathroom or toilet room.
3. **Occupants to Have Access to Sanitary Facilities** – Every occupant of every dwelling unit shall have unrestricted access to a toilet, bath, kitchen sink and lavatory basin located within that dwelling unit.
4. **Closets and Counter Areas** – Each dwelling unit shall have at least one (1) closet with a minimum of six (6) square feet of floor area and a minimum height of 6' located within the dwelling unit. Dwelling units with two (2) or more bedrooms shall have a storage floor area of at least four (4) square feet per bedroom. This storage requirement does not necessarily have to be located in the bedrooms.
  1. All kitchens shall have a minimum enclosed storage area of eight square feet with a minimum vertical clearance of 12" and a horizontal width of at least 12". Each kitchen shall have a minimum of four (4) square feet of counter area.
5. **Pest Control/Extermination** – Units with visible infestation should be properly exterminated. Termites can cause serious problems in the wood structural components of a dwelling and may go undetected for a long period of time. In the case of acquisition, a pest inspection shall be required prior to closing.

#### **F. Maintenance of Non-Dwelling Structures**

1. **Maintenance of Non-Dwelling Structures** – Every foundation, wall, roof, window, door, hatchway and every other entryway of every non-dwelling structure shall also be so maintained as to prevent the structure from becoming a harborage for rodents, snakes, vermin and insects and shall be kept in a state of maintenance and repair.
2. **Protection of Exterior Wood Surfaces** – All exterior wood surfaces of all non-dwelling structures shall be properly protected from the elements and from decay and rot by lead-free paint or other approved protective coatings. If units are constructed on or before 1978, treatment of all applicable surfaces shall be in compliance with the Lead Based Paint regulations as found at 25 CFR Part 35 including all future amendments as published by HUD.
3. **Maintenance of Fences** – Every fence shall be kept in a state of maintenance and repair or shall be removed. Replacement is optional for single family rental

properties. If a fence is to be removed and replaced the installation shall be in compliance with all local requirements.

4. **Grading and Drainage of Premises** – Every premise shall be graded and maintained so no stagnant water will accumulate or stand on the premises or within or around any building or structure located on the premises. Ground areas around buildings shall be sloped away from walls to eliminate low areas where standing water may collect.
5. **Maintenance of Retaining Walls, Sidewalks, Driveways and Patios** – All retaining walls shall be kept in a state of maintenance and repair. All sidewalks, service walks, driveways and patios shall be kept in a state of maintenance and repair, free from obstructions, defects, uneven joints and tripping hazards.
6. **Maintenance of Premises** – All areas and all parts of the premises upon which any dwelling or dwelling units are located and all areas adjacent thereto and a part of the premises shall be maintained and kept in a clean and sanitary condition. This shall include but not be limited to the cutting of grass, removal of dead trees and brush, removal of abandoned and junked automobiles, auto parts, removal of inoperable machines and appliances, lumber piles and building materials, tin cans, broken glass, broken furniture, rubbish, junk and garbage.
7. **Water Supply – Connect to Water Main** – Every owner of a dwelling situated on property which abuts any street or alley in which a water main is laid shall cause the water service system of the dwelling to be connected to such main.
8. **Abandoned Wells and Cisterns** – Every owner of a dwelling which contains an abandoned well or cistern on the premises shall close and fill them in a proper manner.

**VI. MINIMUM ACCEPTABLE STANDARDS – ACQUISITION OF EXISTING SINGLE FAMILY HOUSING THROUGH DOWN PAYMENT ASSISTANCE PROGRAMS (NO REHABILITATION OR CONSTRUCTION)**

**A. Overview/Applicability**

The following minimum property standards apply to pre-existing single family units acquired whole or in part with federal funds administered by the City of Phoenix including down payment assistance to eligible homebuyers. The intent of these requirements is to establish minimum property standards and criteria for the health and safety of the home's occupants and to ensure the value and the durability of the home. Homes are the collateral for deferred down payment assistance loans and lack of durability can increase the financial risk in the event of default.

More specifically, the International Residential Construction Codes do not contain any minimum requirements for the durability of such items as doors, windows, gutters and downspouts, painting and wall coverings, kitchen cabinets and carpeting. This MPS includes minimum standards for these and other items to ensure the value of the home is not decreased by the deterioration of these components.

The inspection for conformance with these standards is of conditions that are present and visible at the time of inspection prior to acquisition including the assessment of all systems and appliances that are present in normal operating modes. At the time of inspection, Inspectors will check for the most common blight violations as part of the inspection. The most common violations are vegetation, inoperable vehicles, junk and debris, vacant and accessible structures, outside storage, fences in disrepair; parking and graffiti. The inspection does not require dismantling or removing of appliances and mechanical/electrical fixtures including covers.

**B. Lead Based Paint Inspection**

Units built before 1978 shall be inspected and evaluated for the presence of lead based paint in accordance with 24 CFR Part 35 requirements.

Units built before 1978 must be inspected by a lead based paint inspector or risk assessor to evaluate and determine the presence of lead based paint on the painted or coated surfaces. If the presence of lead is detected during the evaluation, any deteriorated surfaces must be stabilized in accordance with the requirements of paint stabilization of 24 CFR Part 35.

A copy of the clearance report verifying the stabilization and other lead hazard reduction efforts have been completed to ensure a lead free and safe environment for the occupants shall be provided to the City.

In the best interest of the public, the City of Phoenix reserves the right to rescind federal assistance for acquisition when lead based paint is detected.

### **C. Minimum Standards for Property and Site**

#### **1. Site**

The property must be free of those foreseeable hazards and adverse conditions that may affect the health and safety of the occupants, the structural soundness of the dwelling or which may impair the customary use and enjoyment of the property.

#### **2. Space**

The dwelling unit must be provided with space necessary to assure suitable living, sleeping, cooking and dining accommodations, sanitary facilities and facilities necessary to create a safe, functional, healthful and durable and energy efficient living environment.

#### **3. Workmanship**

Defective construction, poor workmanship, evidence of continuing settlement, excessive dampness, leakage, decay, termites or other conditions impairing the safety, sanitation or structural soundness of the dwelling shall render the property unacceptable until the defects or conditions have been remedied and the probability of further damage eliminated.

#### **4. Streets**

- The property must be provided with a safe and adequate pedestrian or vehicular access from a public or private street.
- All streets must have an all-weather surface and be usable during run-off.
- An all-weather surface is a road surface over which emergency vehicles can pass in all types of weather.
- Private streets must be protected by permanent easements and maintained by a Homeowners Association or joint maintenance agreement.
- Private streets shall provide access to all of the property for essential and emergency use.

#### **5. Access on Property**

- Dwelling units shall have a means of access in which it is not necessary to pass through any other unit.
- The backyard shall be accessible without passing through any other unit.

- For a row type dwelling, the access may be by means of alley, an easement, by passage through the dwelling or by other acceptable means.

**6. Service**

- Dwelling units shall have the capacity to be maintained individually without trespassing on adjoining properties.
- If a single drain line in the building serves more than one unit, the building drain clean-outs must be accessible from the exterior. Exterior clean-outs shall be installed in an area and in a manner that does not create a tripping or accident hazard.

**7. Utilities**

- Utilities must be independent for each dwelling unit except that common services, water, sewer, gas and electricity may be provided for the dwelling units under a single mortgage or ownership.
- Dwelling units shall have separate utility service shut-offs.
- Dwelling units shall have individual meters for individual utilities.
- Individual utilities shall not pass over, under or through another unit.
  - Unless provision is made for repair and maintenance of utilities without trespass on adjoining properties.
  - Or legal provision is made for permanent right of access for maintenance and repair of utilities.
- Other facilities must be independent for each dwelling unit, except common services such as laundry and storage space or heating may be provided for two (2) to four (4) living unit buildings under a single mortgage.

**8. Power Lines/Overhead Wires**

- Power lines may have to be removed or repositioned.
- Overhead wires from the street to the electrical service panel shall be no lower than 12 feet above ground and shall not come in contact with tree branches or other obstacles and shall not be reachable from nearby windows or other accessible areas.

**9. Landscaping, Lawn Areas and Trees**

In general, landscaping including lawn, shrubs, trees and plantings should be compatible with the neighborhood and comparable homes.

- New landscaping shall conform to a low maintenance landscaping methods that use indigenous species that are drought-tolerant to conserve water used for irrigation. Native plants should be used.

- Lawn shall be consistent with comparable units.
- No shrubs or trees shall block the natural surveillance of first floor windows.
- Lawn shall be appropriately mowed and trimmed at the time of the inspection.
- Trees:
  - Trees damaging to the structure or that threaten the structure shall be trimmed or removed.
  - Mulberry trees and Olive trees are not allowed in the City of Phoenix.
  - Generally, trees that require trimming shall have the branches cut back to the main trunk.

#### 10. **Backyard/Fence**

- The unit must have a fully-fenced backyard with an access gate.
- The fence shall extend from the rear and side property lines to the rear of the structure.
- The fence must completely enclose the backyard and any structures located at the back of the property, including detached garage, storage and other structures.
- The fence shall provide security and privacy.
- The fence gate and gate hardware shall operate smoothly.
- The fence and fence gate must be free of any significant defects and irregularities.
- Deteriorated fence planks, missing fence planks and other defective or missing fence components shall be repaired or replaced as necessary.
- Fence planks and other fence components shall be securely fastened in place.
- The backyard must be reasonably graded.
  - Holes or depressions shall be filled to correct drainage problems and remove safety hazards.
- The backyard shall be fairly clear and free of weeds and other wild growth at the time of the inspection.

#### 11. **Trash and Debris**

The property should be free from any accumulation of trash, rubbish and garbage, dead branches, discarded items and other conditions conducive to infestation of insects, vermin and other pests.

## 12. Drainage

- The site must meet the City of Phoenix retention requirements as outlined in Section 32A-24 of the City Code.
- The site must be graded to provide positive drainage away from the perimeter walls of the unit and to prevent standing water on the site.
- The ground on all sides of the unit shall be elevated and shall slope away from all sides of the property for drainage.
- Drainage on site shall drain away from the house, but not directed to any adjacent housing or structures.
- Drainage shall be directed towards the street, alley or easement, facilitated by elevation around the unit.

## 13. Splash Blocks/Gutters

- Gutter downspouts shall require such splash blocks and gutter extensions to carry water away from the structure.
- Gutters, gutter extensions and downspouts must be operating as intended and securely fastened and shall be located and installed in a manner that does not create a tripping or accident hazard and shall direct water away from the structure.
- Splash blocks shall be correctly installed with open end facing away from the structure.
- Pavestones, gravel or other materials or combination of materials must be approved by the City before they can be substituted for splash blocks or gutters.

## 14. Paving

- Badly deteriorated walks, driveways and other essential paving shall be repaired or replaced as necessary.
- Non-essential deteriorated paving shall be repaired or removed.

### D. Minimum Standards for Ventilation, Insulation and Attic Access

#### 1. Adequate Ventilation Required

Every habitable room shall have at least one window or skylight which can easily be opened, or other such device that will adequately ventilate the room.



The total operable window area, in every habitable room, shall be equal to at least 50% of the minimum window opening area size or minimum skylight type window size as required above, except where there is supplied some other device affording adequate ventilation.

**2. Light and Ventilation Requirements for Bathrooms, Toilet Rooms and Kitchens**

Every bathroom, toilet room, kitchen or other similar room shall have a window area of not less than three (3) square feet. Every bathroom, toilet room and kitchen shall comply with the light and ventilation requirements for habitable rooms as contained above, except that no window shall be required in adequately ventilated bathrooms, toilet rooms or kitchens equipped with a ventilation system installed in accordance with the current building code.

**3. Attic Ventilation**

Natural ventilation of structural space, such as attics and crawl spaces, must be provided to reduce the effect of conditions of excess heat and moisture which are conducive to decay and deterioration of the structure.

- Attics must have adequate ventilation to allow moisture and excessive heat to escape.
- Attics will be ventilated through the roof or by other appropriate methods.

**4. Attic Support Structure**

The attic support structure must be structurally sound and not damaged; must not have evidence of leakage; and must not have significant water damage visible from the attic or the interior of the dwelling.

**5. Attic insulation**

- Attic areas will be insulated over living areas.
- Insulation shall be flush with joist.
- If the existing insulation is not flush with the joist, the attic insulation shall be increased to at least an R-30 rated insulation.

**6. Attic Access and Attics Containing Appliances**

- Attic access must be located in a hallway or other readily accessible location.

- Attic scuttle lids located in a living area shall be insulated to reduce heat penetration into the home.
  - The attic scuttle shall also close to form a reasonably tight seal flush against the ceiling.
- At least one lighting outlet must be provided in the attic, when mechanical equipment present, controlled by a wall light switch or integral switch. The lighting must be located near the equipment.
- A convenience receptacle outlet shall be present to service appliances located in the attic.
- Cables and wiring located within six (6) feet of the scuttle shall be adequately protected.
- Attic containing appliances requiring access:
  - The clear access opening shall be a minimum of 22 inches by 30 inches where such dimensions are large enough to allow the removal of the largest appliance.
  - The passageway to the appliances shall be continuous solid flooring and not less than 22 inches wide.
  - A level service space at least 30 inches deep and 30 inches wide shall be present along all sides of the appliances where access is required.
    - Exception: A working platform need not be provided when the furnace can be serviced from the required access opening

## **E. Minimum Space, Use and Location Requirements**

### **1. Minimum Ceiling Height**

No habitable room in a dwelling or dwelling units shall have a ceiling height of less than 7'6". At least ½ of the floor area of every habitable room located above the first floor shall have a ceiling height of 7'6", and the floor area of that part of the room where the ceiling height is less than 5' shall not be considered as part of the floor area in computing the total floor area of the room for the purpose of determining maximum floor area.

- A ceiling height of a minimum of 7' is acceptable in bathrooms, toilet rooms, hallways, utility rooms and kitchens.
- All rooms, except kitchen and/or kitchenettes, utility rooms and baths, shall have a minimum width of 7'.

## **2. Maintenance of Sleeping, Bath and Toilet Rooms**

No dwelling or dwelling unit containing two (2) or more sleeping rooms shall have such room arrangement that access to a bathroom or toilet room intended for use by the occupants can be had only by going through another sleeping room or bathroom or toilet room.

## **3. Occupants to Have Access to Sanitary Facilities**

Every occupant of every dwelling unit shall have unrestricted access to a toilet, bath, kitchen sink and lavatory basin located within that dwelling unit.

## **4. Minimum Storage and Counter Areas**

Each dwelling unit shall have at least one (1) closet with a minimum of six (6) square feet of floor area and a minimum height of 6' located within the dwelling unit. Dwelling units with two (2) or more bedrooms shall have a storage floor area of at least four (4) square feet per bedroom. This storage requirement does not necessarily have to be located in the bedrooms.

- All kitchens shall have a minimum enclosed storage area of eight square feet with a minimum vertical clearance of 12" and a horizontal width of at least 12". Each kitchen shall have a minimum of four (4) square feet of counter area.

## **5. Pest Control/Extermination**

Units with visible infestation should be properly exterminated. Termites can cause serious problems in the wood structural components of a dwelling and may go undetected for a long period of time. In the case of acquisition, a pest inspection shall be required prior to closing.

## **F. Minimum Standards for Electrical Service and Lighting**

The dwelling shall contain sufficient electrical sources to permit the use of essential appliances while ensuring safety from fire. Each room shall have adequate natural or artificial illumination to permit normal indoor activities and to support the health and safety of the occupants.

### 1. **Electrical Switches and Outlets**

- Every room shall have at least two (2) duplex receptacle and one (1) light fixture or three (3) duplex receptacles.
  - Large rooms or rooms with heavy current electrical loads may require three (3) or more outlets.
- All electrical outlets and switches must be operating as intended.
- Sparks or smoke should not be present in electrical outlets.
- Readily accessible electrical outlets shall be randomly tested with a circuit tester to determine if outlets are wired correctly and operating as intended.

### 2. **Light Fixtures**

- Every habitable room must be provided with a light fixture or one (1) outlet controlled by a wall switch.
- Existing wall or ceiling lights with internal switches are acceptable.
- Common or internal stairways from one floor used as a living area to another must have at least one (1) light controlled by a three-way switch.
- Exterior stairs with five (5) risers or more shall have a light fixture.

### 3. **Ground Fault Circuit Interrupter (GFCI) Electrical Outlets**

Electrical outlets that are not GFCI protected must be replaced as necessary with GFCI protected outlets to comply with the below referenced requirements

- Kitchens shall have GFCI protected outlets when outlets are within six (6) feet of a sink or if rewiring then all outlets on the countertops shall be GFCI protected.
- Bathrooms must have at least one (1) GFCI protected outlet.
- Bar sinks must have at least one (1) GFCI protected outlet.
- All of the accessible outlets in the garage must be GFCI protected.
- All exterior outlets shall be GFCI protected.

### 4. **Appliance Outlets**

- Appropriate electrical outlets must be provided for all existing appliances.
- Appliances requiring 120 volts may be on a circuit with other outlets so long as there is no evidence of circuit overload.
- Essential motors requiring 240 volts must have a separate dedicated circuit and outlet.

## 5. **Main Panel Board (Circuit Breaker Box)**

The service entrance must be intact, securely fastened, in good condition and sized to safely service all outlets, fixtures and basic appliances

- The service rating shall not be less than 100 amps for single family dwellings. Service ratings under 100 amps shall require a calculation and certification by a qualified authority to be prepared to demonstrate and confirm the rating of the service is sufficient.
- Electric circuit breaker panel box shall be appropriately labeled. The use or purpose of all panel board circuits shall be legibly marked and identified on a circuit directory located on the face or inside the door of the enclosure.
- Panel box shall not be missing any knockouts.
- The panel box shall be grounded at the service.

## G. **Minimum Standards for Heating and Cooling Systems**

### **Heating and cooling systems must:**

- Be safe to operate.
- Be protected from destructive elements
- Have reasonable future utility, durability and economy.
- Have adequate capacity and quality.

#### 1. **Thermostatic Controls**

A thermostat that controls both heating and cooling shall be operable and present within the unit.

#### 2. **Heating**

The heating system must be capable of delivering enough heat to assure a healthy environment and a comfortable living condition.

- Fuel supply lines shall have a shut off valve easily accessible and all piping well supported and protected.
- Gas supply lines should be black iron or steel pipe or other approved piping.

#### 3. **Duct Distribution System**

- Existing circulating air ducts shall be insulated including those located in attics and crawl spaces.
- Existing air ducts shall be supported above the ceiling joist and insulation.

#### 4. Air Conditioning

The cooling system must be capable of delivering enough cool air to assure a healthy living environment and a comfortable living condition.

- The airflow around the existing condenser must not be obstructed.
- The existing condenser unit must be reasonably level and well supported with the housing intact.
- The unit refrigerant line (larger line) must have the insulation intact.
- An electric disconnect switch used for maintenance and repairs should be located within sight of the condenser unit. Circuit breaker in the service panel box is acceptable if located within sight of the unit.

### H. Minimum Standards for the Interiors of Structures

#### 1. Kitchen Standards

- The kitchen must provide suitable space and equipment to store, prepare and serve foods in a sanitary manner.
- Kitchens shall be equipped with a minimum of one (1) single bowl sink with hot and cold running water. Hot water tap should be located on the left side.
- A continuous and sufficient supply of potable water under adequate pressure shall be provided for all kitchen appliances.
- Kitchen plumbing fixtures shall function as intended and free of water leakage.
- Stove and refrigerator receptacles shall be present.

#### 2. Kitchen Appliances and Countertop

- Kitchen appliances, fixtures and other components shall be in good repair and function as intended.
- Kitchen must have refrigerator and stove receptacles with appropriate appliance connections.
- If present, garbage disposer shall be labeled and shall have a smooth sounding operating noise.
- Stoves and ranges must be equipped with anti-tipping devices, leveled and free of movement.
- A means to vent the stove to the outside shall be present, either by a stove vent hood or a kitchen window located in proximity to the stove.
- Countertop shall be leveled, structurally sound and free of significant warping, deterioration or other irregularities.

- Special built-in spaces or compartments under cabinets and under countertops and in other areas shall be equipped with the appliance it was intended to house. Stove and refrigerator are exempt.

### 3. Kitchen Cabinetry

- Kitchen cabinets shall be leveled, structurally sound and securely fastened.
- Space between cabinets and surfaces shall be appropriately filled.
- Cabinet doors, drawers and cabinetry hardware shall operate smoothly.
- Cabinets shall be free of defects, irregularities and deterioration.
- Cabinet decking shall be leveled and free of significant warping, deterioration or other irregularities.

### 4. Bathroom Standards

The bathroom shall be equipped with a minimum of a vanity with a sink, a tub and/or shower with hot and cold running water and a toilet. Hot water taps should be located on the left side.

- Plumbing fixtures and other plumbing components shall be in good repair and operating as intended. Water leakage shall not be present.
- Bath or shower compartments shall be adequately sealed with an appropriate sealant.
- Bathroom vanity tops shall be waterproof and free of any irregularities.
- Shower compartment doors shall be intact and free of leakage.
- Bathrooms shall be adequately vented to the outside by an exhaust fan or by a bathroom vent window that can be opened. The vent window must open to the exterior of the unit. Bathrooms must not be vented to the attic, crawl space or any area inside the dwelling. An exception shall be considered on first floor ½ bathrooms where an exterior wall is not present and located below another room which is not the attic. In such a case the installation of air circulating vent fan with a replaceable activated charcoal filter will meet this requirement. A bathroom without a bathtub, shower facilities or other bathing facilities shall be considered a ½ bathroom.
- Bathroom mirrors and medicine chest shall be intact and securely fastened.
- Bathroom vent window shall have a locking device and a mechanism to allow the window to remain partially open.
- Bathroom cabinetry shall be consistent with the kitchen cabinetry standards.

## 5. Floor Covering

- Floor coverings must be free of any significant defects and conditions that may cause a tripping hazard.
- Complete replacement of existing floor tile may be necessary if some tiles do not match.
- Floor coverings in the bathroom and kitchen area shall be of the water resistant material rendered smooth and easily cleanable.
- Carpet floor covering shall be reasonably clean and safe. Significantly damaged or worn carpet or defects causing tripping hazards shall be repaired or replaced as necessary. If the carpet is to be replaced, it must be replaced with low VOC hard surface flooring.

## 6. Interior Walls and Ceilings

Ceilings and walls must not have significant defects such as bulging, leaning, holes, loose surface materials, buckling, missing parts or other damage that may result in air infiltration or vermin infestation.

- Walls must be reasonably plumb and the ceiling must be reasonably level.
- Walls and ceilings shall be reasonable clean.
- Paint finishes or other appropriate covers (wallpaper, paneling, etc.) shall be reasonably uniform and in reasonably good condition.
- Solid plaster or wallboard that is slightly uneven but sound shall be acceptable.
- Cracks more than 1/16 of an inch on existing walls and ceilings shall be repaired, left ready to paint and textured to match existing.

## 7. Utility Room/Washer and Dryer Connections

- Washer and dryer connections shall be provided.
- Existing washer water connection shall be free of leakage, intact and securely fastened and function as intended.
- Hot water tap shall be on the left side.
- The water supply line housing shall be intact and flush with the wall.
- Dryer vents that pass through walls or other combustible material shall be metal and vented to the outside.
- Enclosed washer and dryer shall be equipped with an exhaust system, independent of all other systems, and shall convey moisture to the outside.



## 8. **Bedroom Closets**

- Bedrooms shall have access to a closet located in the bedroom area for storage of clothing.
- Bedroom closets shall have a clothes rod and shelf.
- Closets designed to have access through a door shall have a door.
  - Door and door hardware shall operate smoothly.
- Closet light fixtures shall not be located too close to the shelves.
  - Light fixtures too close to the shelves may cause a hazardous condition and an impediment to the use of the shelves.

## 9. **Bedroom Egress**

- All bedrooms shall have adequate egress to the exterior of the dwelling unit. If an enclosed patio is adjacent to the bedroom window, it is possible the bedroom may not qualify as a habitable bedroom.
- Emergency escape and rescue windows with bars, grills, covers or screens must be releasable or removable from the inside without the use of a key, tool or force greater than normal operation of the escape and rescue opening.
  - Any impediment to escape or rescue caused by security devices, inadequate window opening size or difficult operating mechanisms shall not be permitted.
- Occupants of a bedroom must be able to get outside the unit in the event of a fire or other emergency requiring quick egress.

## 10. **Interior Doors and Hardware**

- Doors and door components shall be free of significant defects, deterioration and irregularities.
- Bedroom, bathroom and closet doors and door hardware shall operate smoothly.
- Entrance doors to the master bedroom and bathroom doors shall be equipped with privacy locks.
  - A privacy door lock may not be required on bathrooms with separate restroom facilities equipped with a door provided the door to the referenced restroom facilities are equipped with a privacy door lock.
- Closet doors shall be equipped with passage door hardware.

## 11. **Stairs**

Stairs shall comply with the following:

- All stairways and steps of four (4) or more risers shall have at least one (1) handrail. All stairways and steps which are five (5) feet or more in width shall have a handrail on each side.
- All handrails shall be installed not less than 34 inches nor more than 38 inches, measure plumb, above the nosing of the stair treads. Handrails adjacent to a wall shall have a space of not less than 1½" between the wall and the handrail. All handrails shall be turned back into the wall on railing ends. The size of the round railing must be a minimum of 1 ¼", but not more than 2". Railings must be continuous from the top riser to the bottom riser.
- Porches, balconies or raised floor surfaces, including stairway riser and/or landing, located more than 30" inches above the floor or grade, shall have guardrails and stair railings shall have immediate rails or ornamental pattern such that a sphere of 4" inches in diameter cannot pass through.
- All stairs and steps shall have a riser height of not more than 8" and a tread depth of not less 9". All newly constructed stairs, not replacement stairs, shall have a riser height of not more than 7 ¾" and a tread depth of not less than 10". Risers and treads cannot be different in size by more than 3/8 of an inch from the top to the bottom of the stairs.

#### **12. Doorbell/Door Viewer**

- The unit shall be equipped with a doorbell or doorknocker.
- The front entry door shall also be equipped with a door viewer.
  - Exception: If a sidelight is adjacent to the entry door and/or the entry door has an unobscured glaze at a reasonable height (5 ft.), a door viewer may not be required.

#### **13. Ceiling Fans**

Existing ceiling fans shall be intact, securely fastened and free of vibration.

#### **14. Telephone Connections**

The dwelling shall have at least two (2) pre-wired telephone jacks.

#### **15. Smoke Alarms/Detectors**

- Carbon monoxide detectors shall be installed in rooms where natural gas is present or dwellings with an attached garage.
- Smoke detectors shall be installed in accordance with manufacturer's instructions and provided in the following locations:
  - A smoke detector in each room used for sleeping;

- Outside of each bedroom or sleeping area in the immediate vicinity of the bedrooms or sleeping area (hallway area);
- If bedrooms or sleeping areas are located on different (usually on opposite) sides of the unit, the reference above applies to bedrooms and sleeping areas on each side;
- On each additional story of the dwelling;
- The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed; and
- On units built after 2000, when more than one smoke alarm is required in an individual unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

## **I. Minimum Standards for Exteriors of Structures**

### **1. Foundations and Structure**

The dwelling unit shall be structurally sound and not present any threat to the health and safety of the occupants and must protect the occupants from the environment.

- **Foundations**

Foundations must be:

- Sound and reasonably level.
- Must be adequate to withstand all normal loads imposed.
- Free of any irregularities or evidence that could indicate safety or structural deficiencies.
- Free of any defects that may result in air infiltration or vermin infestation.
- Foundation walls should provide sufficient clearance above finish grade adjacent to the foundation.

- **Structural (exterior) Walls**

- Structural framing and masonry shall be free from defects and deterioration such as water damage, cracks, rotting, loose surface material and termite damage.
- Walls shall be free of any cavities between the exterior wall and windows, door entries or openings at the soffit for a weather tight exterior wall.

- **Wall Surfaces and Trim**

- Siding and trim, brick veneer and other wall components shall be intact and weather tight.
- Paint coverage on exterior surfaces and components shall be uniform.
- Paint coverage and finish on existing siding and trim components must not be significantly deteriorated.
- Siding and trim determined defective and deteriorated shall be replaced.
- Siding exposing the bottom plates of the structure shall be replaced.
- If over 40% of the siding of an existing wall is required to be replaced, the entire siding on the wall must be replaced. Siding on each wall shall be assessed individually.
- Brick veneer shall be free of significant deterioration, cracking and loose bricks that may cause water penetration.

- **Roof Covering**

The roof covering must prevent moisture from entering and must provide future utility, durability and economy of maintenance.

- The roof must be structurally sound and weather tight and must cover the entire unit.
- Roof shall not have signs of leakage when observed from the ground (missing tiles).
- If the roof cannot be observed from the ground, the roof shall be assessed from the inside of the dwelling including attic if easily accessible and shall be noted on the inspection report.
- Missing or damaged shingles shall be replaced.
- Roof covering will be replaced in its entirety if the shingles are blistered and the mineral covering is substantially deteriorated.
- Damaged shingles and flashing on roofs will be repaired or replaced as necessary.
- Flat roofs shall require inspections by a licensed roofing authority.

- **Chimney/Fireplace**

Chimneys shall be structurally sound, durable, smoke tight and capable of conveying flue gases to the exterior safely.

- Chimney cap must be present.

- Proper flashing must be present to eliminate water penetration.
  - Masonry must be free of any significant defects or irregularities.
  - Fireplace damper shall be operating as intended.
  - Fireplace hearth shall be free from significant defects.
  - Gas fireplace shall have a gas shut off valve in proximity with shut off valve handle.
- **Stairways, Decks, Handrails and Guards (Exterior)**  
Stairways, decks, handrails and guards must not present the danger of tripping or falling.
    - Exterior steps, stairways and decks shall be structurally sound and reasonably level with smooth and even surfaces.
    - Deteriorated, damaged, rotten or other defective stairways, decks, handrails, guards or other stairway components shall be repaired or replaced as necessary.
    - Porches, balconies or raised floor surfaces located more than 30 inches above grade or above another floor shall have handrails/guards or balustrades. Handrails should be at least 36 inches in height.
    - Stairways with more than three (3) steps should have a handrail at least on one side of the stairway.
      - The handgrip portion of the handrail shall be rounded smooth and safe.

## 2. Exterior Doors and Windows

- **Exterior/Egress Doors**

Exterior Doors include all doors leading to the outside from the inside and leading into the house or garage from the outside. Connecting doors leading from the inside of the dwelling into the garage shall be considered an exterior/egress door. An access door in a garage shall not be considered an outdoor egress door.

- All exterior/egress doors shall be readily opened from the side from which egress is to be made without the use of a key or special knowledge or effort. This applies to connecting doors leading from the inside into the garage.
- Exterior/egress doors shall be solid core or metal/fiberglass clad.

- Existing exterior/egress hollow core doors shall be replaced with solid core or wood/metal/fiberglass clad doors.
  - All six sides of the door shall be uniformly painted.
  - Exterior doors shall be equipped with a single key deadbolt lock and entrance lockset or entry handle-set with a deadbolt and the door and door hardware shall operate smoothly.
  - Doors, door hardware and paint coverage on exterior doors shall not be deteriorated.
  - Exterior doors shall be weather-stripped and reasonably sealed.
  - Glazed entrance doors including storm doors, sliding glass patio doors and glazing immediately adjacent to these doors must be safe and securely fastened.
- **Windows**
    - Windows must be operational from the inside of the room without the use of keys or tools or force greater than normal. Window and window hardware shall operate smoothly.
    - Windows designed to open shall have a locking device as referenced in this section and a mechanism to allow the window to remain partially open.
    - Defective, screw type or missing window locks shall be replaced with matching or locks similar to the original window locks. Window locks shall be securely fastened to the window.
    - Screw type devices are not acceptable.
    - Existing windows and window components shall be free of defects and significant deterioration.
    - Defective windows shall be replaced with double pane Low E windows.
    - Windows shall provide a reasonably tight seal.
    - Windowpanes that are broken or cracked shall be replaced.
    - Windows with security bars or other like devices must have a release mechanism on the interior side of the window.
- **Window Screens**
    - Windows designed to be open shall have insect screens.
    - Window screens shall be free of defects; shall be intact and properly fit; and must keep out insects, bugs and other pests.

### 3. Other Exterior Standards

- Mailbox  
Units must have a mailbox or community cluster mailboxes.
- Address Numbers  
The unit must have a minimum of 3-inch high address numbers placed on the unit and plainly visible and legible from the street or road fronting the property.

## J. Minimum Standards for Plumbing Systems

All plumbing fixtures and plumbing components must be in good repair and proper working condition free of dripping.

### 1. Water Supply

- The units must be provided with a continuing and sufficient supply of potable water under adequate pressure and of appropriate quality for all household uses.
- Hot taps shall be located on the left side.
- One main water shut-off valve should be located near the entrance of the water service into the unit.
- Hose connections shall be protected by backflow prevent devices (vacuum breakers).
  - This does not apply to water heater drain valves
  - Nor water supply valves intended for connecting clothes washing machines.
- Water supply lines to the kitchen sink, lavatory basin, water heater and other water supply lines must have individual shut-off valves.
- Water line penetrations under kitchen sinks, lavatory basin and other locations must be adequately sealed. Clean-out penetrations located in the referenced areas or in other locations must be sealed.
- Sinks, basin or pipes shall not leak; puddles or wetness under plumbing fixtures shall not be present.
- The following water supply lines shall be appropriately insulated:
  - Water supply lines located in the attic;
  - Water heater cold water supply lines – also applies to water heaters located in the garage; and
  - Water supply lines exposed to the weather.
- Electrical wiring under sinks/basins must not present a hazard or threat to the occupants. The wiring must not come in contact with water lines and possible water leakage.

- The main meter compartment shall be free of stagnated water and evidence of possible leakage.

## 2. **Drain, Waste and Vent Lines**

Units must have sanitary facilities and a safe method of sewage disposal.

- Existing drainage, waste and vent system should be adequately sized to provided drainage and removal of waste.
- Existing vents must prevent pressure build-up and sewer gas from entering the unit.
- Existing traps or other plumbing components that are broken or leaking shall be repaired or replaced as necessary with similar components and installed in accordance with manufacturer's instructions and current IRC.

## 3. **Water Heaters**

- The water heater shall provide an adequate supply of hot water at all taps.
- Each dwelling unit shall have a gas-fired or electric water heater with at least a minimum capacity of 30 gallons.
- The water heater shall be connected to an appropriate flue, to vent combustion gases to the exterior.
- The water heater shall be equipped with an appropriate sized temperature and pressure relief valve with discharge pipe properly installed.
- Water heater discharge line shall be directed approximately six (6) inches above the floor or to the exterior.
- A shut-off valve to the water heater cold supply line shall be present. The valve shall be located at or near the water heater and shall be readily accessible.
- Water heater cold water supply line shall be completely insulated if located in the attic, garage and other locations in which the water heater may be exposed to low temperatures which may result in the referenced line freezing.
- A water heater installed where leakage of the water heater tank or connections may cause damage, shall be installed in a galvanized drain pan or in other pans listed for such use.
- Gas and electric water heaters located in the garage and that have an ignition source shall be elevated 18 inches above the garage floor.



- Exception: elevation is not required if the water heater is listed as 'flammable vapor resistant' and 'installation without elevation'.
- The water heater shall not be located in any room used or designed for sleeping purposes or in a clothes closet.
- If the water heater is defective or deteriorated and a new water heater is to be installed, the new water heater shall be a high efficiency gas storage heater with an energy factor of at least 0.62.

## **VII. MINIMUM ACCEPTABLE STANDARDS – REHABILITATION OF SINGLE FAMILY HOUSING (FOR RESALE OR OWNER-OCCUPIED)**

### **A. Overview/Applicability**

This document consists of standards, which must be met for rehabilitating a single-family home. It is applicable to only substantial rehabilitation as opposed to new construction. The standards are performance standards, for example specifying that units must be habitable and in functional condition with maximum life expectancy. The performance standards are similar to codes governing the quality of new construction of housing. This minimum standard applies to all substantial rehabilitation of owner-occupied single family housing funded through the City of Phoenix. At the time of inspection, Inspectors will check for the most common blight violations as part of the inspection. The most common violations are vegetation, inoperable vehicles, junk and debris, vacant and accessible structures, outside storage, fences in disrepair, parking and graffiti.

### **B. Applicability of Standards to Minor Home Repairs and Emergency Repairs**

Minor home repairs and emergency repairs may meet these standards on a selective basis. When applying these standards to minor or emergency repairs for single-family housing where the funding may be limited, not all standards are expected to be met, however the items to be repaired shall be repaired to the applicable standard found in this document. To the maximum extent economically feasible, all housing addressed under a minor repair program shall first make repairs in the following order of greatest need:

- Repairs to protect the health, safety and security of the occupants;
- Repairs to preserve or restore the structural integrity of the building to assure its continued fitness for use as a single family dwelling;
- Repairs to improve the energy efficiency of the dwelling in a cost effective manner; and
- Repairs to address other work deemed necessary to accomplish work items identified above.

Such minor/emergency repair work will be funded to be completed to the maximum amount of funding available to address minor or emergency repairs. When performing minor repairs, repairs to these standards will only address items to remove or reduce hazards and not necessarily designed to meet or exceed Housing Quality Standards (HQS) or local building codes. Since minor or emergency repairs may not bring the housing units into compliance with all codes, and the use of HOME funds requires compliance with all applicable codes, funding for such repairs are restricted to Community Development Block Grant or other grant or local funds.

All housing units funded by the City must be free of all health and safety defects. If at time of inspection any health and safety violations are found, participants will have 24 hours to correct noted violations. The violations include:

- Refrigerator not working;
- *Only* toilet is clogged;
- *Bottom toilet* in a two-story is clogged;
- Kitchen sink clogged in a two-story unit;
- No electricity to cooler or refrigerator
- Water line leak;
- Leaking water heater;
- Broken windows;
- Broken entry locks; and
- Lock change in case of emergency

When participants are rehabilitating single-family rental housing, the following major systems must have a remaining useful life for a minimum of 15 years or the major system must be rehabilitated or replaced as part of the rehabilitation work. Major systems include:

- Structural support;
- Roofing;
- Cladding and weatherproofing;
- Plumbing;
- Electrical; and
- Heating, ventilation and air conditioning

When participants are rehabilitating single-family owner-occupied housing, the following major systems must have a remaining useful life for a minimum of five (5) years or the major system must be replaced or rehabilitated as part of the rehabilitation work. Major systems in this category include:

- Structural support;
- Roofing;
- Cladding and weatherproofing;
- Plumbing;
- Electrical;
- Heating, ventilation and air conditioning

### **C. Lead Based Paint**

Units built before 1978 shall be inspected and evaluated for the presence of lead based paint in accordance with 24 CFR Part 35 requirements. Units built before

1978 must be inspected by a lead based paint inspector or risk assessor to evaluate and determine the presence of lead based paint on the painted or coated surfaces. If the presence of lead is detected during the evaluation, any deteriorated surfaces must be stabilized in accordance with the requirements of paint stabilization of 24 CFR Part 35.

A copy of the clearance report verifying the stabilization and other lead hazard reduction efforts have been completed to ensure a lead free and safe environment for the occupants shall be provided to the City.

In the best interest of the public, the City of Phoenix reserves the right to rescind federal assistance for acquisition when lead based paint is detected.

#### **D. Energy Efficient Rehabilitation**

When a single family home is being rehabilitated, it is an ideal time to incorporate energy savings measures. The older the home, the more likely it needs some updating. Sealing air leaks and properly installing the correct level of insulation will create significant energy savings and improve comfort. Replacing windows, appliances, lighting or heating and cooling equipment with Energy Star qualified products will maximize savings. If the water heater is being replaced, do so with a new energy efficient model and install low flow fixtures for additional savings.

##### **a. General Recommendations**

1. Install an Energy Star qualified programmable thermostat
2. If replacing air conditioning, replace with an Energy Star qualified model with a 13 SEER (or above) cooling efficiency.
3. When replacing windows, choose Energy Star qualified windows with a U-Factor of 0.35 and a SHGC of 0.30 or less.
4. Insulate ceilings to at least R-30.
5. Insulate all exterior walls to R-13.
6. Install radiant barriers in the attic above the living spaces.
7. When replacing appliances, replace with Energy Star qualified appliances.
8. Choose Energy Star qualified lighting options.
9. Install Compact Fluorescent Lighting.
10. If replacing ceiling fans, replace with Energy Star qualified ceiling fans.
11. If replacing fixtures in bathrooms, replace with low flow fixtures.

##### **b. Roof**

Replacing or repairing the roof may result in great energy efficiency benefits for the home. When replacing the roof, incorporate the measures below to reduce the energy consumption.

1. Insulate attic to a minimum of R-30

2. Install radiant barriers in the attic above the living spaces.
3. Install a gutter system to serve as a pathway for water drainage from the roof.
4. When replacing the roof, choose reflective, light colored tiles.

c. **Kitchen**

Energy efficient improvements in the kitchens will improve indoor air quality, decrease moisture and mold problems. Incorporate the following energy efficient measures to reduce energy consumption.

1. When replacing appliances, replace with Energy Star qualified appliances.
2. When replacing light fixtures, choose Energy Star qualified lighting options.

d. **Bathroom**

The outside walls behind the tubs or showers are often poorly insulated and air-sealed. Opening these walls as part of the rehabilitation project provides an opportunity to seal air leaks and install insulation. In addition to energy efficient improvements, the measures below should be incorporated to save water and create a healthier bathroom.

1. When installing new shower heads, faucets or a new toilet, choose low flow models.
2. When replacing light fixtures, choose Energy Star qualified lighting options.

e. **Plumbing**

When upgrading or repairing the plumbing, integrate energy efficient measures as you plan the project.

1. When replacing the water heater, choose a gas water heater with an EF of 0.62 or higher and a recovery efficiency of 0.76.
2. When replacing fixtures, choose low flow fixtures.

**E. Minimum Standard Features in All Homes**

The following minimum standard features shall be met when rehabilitating single family units if existing materials and/or appliances are hazardous to the health and safety of the occupants, inoperable, irreparable and must be replaced:

**Exterior Features**

- Clay brick or concrete masonry unit on exterior walls consistent with comparable neighboring homes.
- Hollow metal, solid core wood or fiberglass clad doors.
- Keyed lockset and deadbolt at all exterior doors. The deadbolt throw should be long enough to extend beyond the doorframe.

### **Construction & Energy Efficiency Features**

- R-30 fiberglass insulation in exterior walls.
- R-30 fiberglass insulation in ceiling areas.
- 13 SEER (or above) air conditioning system with programmable thermostat.
- Double pane aluminum frame Low E windows with screens on all operable windows.
- Adequate roof ventilation.

### **Interior Features**

- Hard surface flooring in kitchen, baths, entry ways and utility rooms.
- If carpet found in other rooms of the dwelling is damaged or causes tripping hazards, the flooring shall be replaced with hard surface flooring.
- Ice maker connection in the kitchen.
- Two (2) pre-wired telephone jacks.
- Two (2) pre-wired cable TV connections.
- GFCI wiring in wet areas
- Countertops should be level, reasonably sound and in good repair.
- Appliances – refrigerator, vent hood, cooking surfaces and oven, all Energy Star rated where such rating is applicable.
- Ceramic tile or ten-year warranty fiberglass molded tub and shower enclosure.
- Cultured marble vanity tops in all bathrooms.
- Shower over tubs.
- If replaced, ceiling fans with light kits in living room and bedrooms.
- Fully painted walls and ceilings when funds are available.
- All bedrooms shall have smoke detectors.
- Carbon monoxide detectors to be centrally located in homes with gas operating appliances or attached garage.

## **F. Minimum Standards for Property and Site**

### **1. Streets**

- The property must be provided with a safe and adequate pedestrian or vehicular access from a public or private street.
- All streets must have an all-weather surface and usable during run off.
  - An all-weather surface is a road surface over which emergency vehicles can pass in all types of weather.

- Private streets must be protected by permanent easements and maintained by a Homeowners Association or joint maintenance agreement.
  - Private streets shall provide access to all of the property for essential and emergency use.

**2. Access onto Property**

- Dwelling units shall have a means of access in which it is not necessary to pass through any other unit.
- The backyard shall be accessible without passing through any other unit.
  - For a row type dwelling, the access may be by means of alley, an easement, by passage through the dwelling or by other acceptable means.

**3. Service**

- Dwelling units shall have the capacity to be maintained individually without trespassing on adjoining properties.
- If a single drain line in the building serves more than one unit, the building drain clean-outs must be accessible from the exterior. Exterior clean-outs shall be installed in an area and in a manner that does not create a tripping or accident hazard.

**4. Utilities**

- Utilities must be independent for each dwelling unit except that common services, water, sewer, gas and electricity may be provided for the dwelling units under a single mortgage or ownership.
- Dwelling units shall have separate utility service shut-offs.
- Dwelling units shall have individual meters for individual utilities.
- Individual utilities shall not pass over, under or through another unit.
  - Unless provision is made for repair and maintenance of utilities without trespass on adjoining properties.
  - Or legal provision is made for permanent right of access for maintenance and repair of utilities.
- Other facilities must be independent for each dwelling unit, except common services such as laundry and storage space or heating may be provided for two (2) to four (4) living unit buildings under a single mortgage.

**5. Power Lines/Overhead Wires**

- Power lines may have to be removed or repositioned.
- Overhead wires from the street to the electrical service panel shall be no lower than 12 feet above ground and shall not come in contact with tree branches or other obstacles and shall not be reachable from nearby windows or other accessible areas.

f. **Landscaping, Lawn Areas and Trees**

In general, landscaping including lawn, shrubs, trees and plantings should be indigenous to the City with low water maintenance required and restored if damaged.

- Trees damaging the structure or threatening the structure shall be trimmed or removed.
- Generally trees that require trimming shall have the branches cut back to the main trunk.
- The City of Phoenix does not allow for Mulberry or Olive trees to be planted in the city limits.

g. **Backyard/Fence**

If funding is available, existing fence will be repaired or, as needed, replaced.

h. **Trash and Debris**

The property should be free from any accumulation of trash, rubbish and garbage, dead branches, discarded items and other conditions conducive to infestation of insects, vermin and other pests.

i. **Drainage**

If funds are available, the site shall be free of ponding.

- The site must meet the City of Phoenix retention requirements as outlined in Section 32A-24 of the City Code.
- The site must be graded to provide positive drainage away from the perimeter walls of the unit and to prevent standing water on the site.
- The ground on all sides of the unit shall be elevated and shall slope away from all sides of the property for drainage.
- Drainage on site shall drain away from the house, but not directed to any adjacent housing or structures.
- Drainage shall be directed towards the street, alley or easement, facilitated by elevation around the unit.

j. **Splash Blocks/Gutters**

- If funds are available, existing gutters will be repaired or, as needed, replaced.
- Gutter downspouts shall require splash blocks and gutter extension to carry water away from the structure.
- Gutters, gutter extensions and downspouts must be operating as intended and securely fastened and shall be located and installed in a



manner that does not create a tripping or accident hazard and shall direct water away from the structure.

- Splash blocks shall be correctly installed with open end facing away from the structure.
- Pavestones, gravel or other materials or combination of materials must be approved by the City before they can be substituted for splash blocks or gutters.

k. **Paving**

- Badly deteriorated walks, driveways and other essential paving shall be repaired or replaced as necessary.
- Non-essential deteriorated paving shall be repaired or removed.

**G. Minimum Standard for Ventilation, Insulation and Attic Access**

1. **Adequate Ventilation Required**

Every habitable room shall have at least one window or skylight which can easily be opened, or other such device that will adequately ventilate the room. The total operable window area, in every habitable room, shall be equal to at least 50% of the minimum window opening area size or minimum skylight type window size as required above, except where there is supplied some other device affording adequate ventilation.

2. **Light and Ventilation Requirements for Bathrooms, Toilet Rooms and Kitchens**

Every bathroom, toilet room, kitchen or other similar rooms shall have a window area of not less than three (3) square feet. Every bathroom, toilet room and kitchen shall comply with the light and ventilation requirements for habitable rooms as contained above, except that no window shall be required in adequately ventilated bathrooms, toilet rooms or kitchens equipped with a ventilation system installed in accordance with the current building code.

3. **Attic Ventilation**

Natural ventilation of structural space, such as attics and crawl spaces, must be provided to reduce the effect of conditions of excess heat and moisture which are conducive to decay and deterioration of the structure.

- Attics must have adequate ventilation to allow moisture and excessive heat to escape.
- Attics will be ventilated through the roof or by other appropriate methods.

4. **Attic Support Structure**

The attic support structure must be structurally sound and not damaged; must not have evidence of leakage; and must not have significant water damage visible from the attic or interior of the dwelling.

## 5. Attic Insulation

- Attic areas will be insulated over living areas.
- Insulation shall be flush with joist.
- If the existing insulation is not flush with the joist, the attic insulation shall be increased to at least an R-30 rated insulation.

## 6. Attic Access and Attics Containing Appliances

- Attic access must be located in a hallway or other readily accessible location.
- Attic scuttle lids located in a living area shall be insulated to reduce heat penetration into the home.
- The attic scuttle shall also close to form a reasonably tight seal flush against the ceiling.
- At least one lighting outlet must be provided in the attic, when mechanical equipment present, controlled by a wall light switch or integral switch. The lighting must be located near the equipment.
- A convenience receptacle outlet shall be present to service appliances located in the attic.
- Attics containing appliances requiring access:
  - The clear access opening shall be a minimum of 22 inches by 30 inches where such dimensions are large enough to allow the removal of the largest appliance.
  - The passageway to the appliances shall be continuous solid flooring and not less than 22 inches wide.
  - A level service space at least 30 inches deep and 30 inches wide shall be present along all sides of the appliances where access is required.
    - Exception: a working platform need not be provided when the furnace can be served from the required access opening.
- Cables and wiring located within six (6) feet of the scuttle shall be adequately protected.

## H. Minimum Space, Use and Location Requirements

### 1. Minimum Ceiling Height

No habitable room in a dwelling or dwelling units shall have a ceiling height of less than 7'6". At least ½ of the floor area of every habitable room located above the first floor shall have a ceiling height of 7'6", and the floor area of that part of the room where the ceiling height is less than 5' shall not be considered as part of the floor area in computing the total floor area of the room for the purpose of determining maximum floor area.

- A ceiling height of a minimum of 7' is acceptable in bathrooms, toilet rooms, hallways, utility rooms and kitchens.
- All rooms, except kitchen and/or kitchenettes, utility rooms and baths, shall have a minimum width of 7'.

**2. Maintenance of Sleeping, Bath and Toilet Rooms**

No dwelling or dwelling unit containing two (2) or more sleeping rooms shall have such room arrangement that access to a bathroom or toilet room intended for use by the occupants can be had only by going through another sleeping room or bathroom or toilet room.

**3. Occupants to have Access to Sanitary Facilities**

Every occupant of every dwelling unit shall have unrestricted access to a toilet, bath, kitchen sink and lavatory basin located within that dwelling unit.

**4. Minimum Storage and Counter Areas**

- Each dwelling unit shall have at least one (1) closet with a minimum of six (6) square feet of floor area and a minimum height of 6' located within the dwelling unit. Dwelling units with two (2) or more bedrooms shall have a storage floor area of at least four (4) square feet per bedroom. This storage requirement does not necessarily have to be located in the bedrooms.
- All kitchens shall have a minimum enclosed storage area of eight (8) square feet with a minimum vertical clearance of 12" and a horizontal width of at least 12". Each kitchen shall have a minimum of four (4) square feet of counter area.

**5. Pest Control/Extermination**

Visible infestation should be properly exterminated. Termites can cause serious problems in the wood structural components of a dwelling and may go undetected for a long period of time. A pest inspection shall be required if the dwelling unit or other structures on the property show evidence of termite infestation. A termite inspection shall be required before notice to proceed to construction and a termite certificate will be required prior to project completion.

**I. Minimum Standards for Electrical Service and Lighting**

The dwelling shall contain sufficient electrical sources to permit the use of essential appliances while ensuring safety from fire. Each room shall have adequate natural or

artificial illumination to permit normal indoor activities and to support the health and safety of the occupants.

**1. Electrical Switches and Outlets**

- Every room shall have at least two (2) duplex receptacle and one (1) light fixture or three (3) duplex receptacles.
  - Large rooms or rooms with heavy current electrical loads may require three (3) or more outlets.
- All electrical outlets and switches must be operating as intended.
- Sparks or smoke should not be present in electrical outlets.
- Readily accessible electrical outlets shall be randomly tested with a circuit tester to determine if outlets are wired correctly and operating as intended.

**2. Light Fixtures**

- Every habitable room must be provided with a light fixture or one (1) outlet controlled by a wall switch.
- Existing wall or ceiling lights with internal switches are acceptable.
- Common or internal stairways from one floor used as a living area to another must have at least one (1) light controlled by a three-way switch.
- Exterior stairs with five (5) risers or more shall have a light fixture.

**3. Ground Fault Circuits Interrupter (GFCI Electrical Outlets)**

Electrical outlets that are not GFCI protected must be replaced as necessary with GFCI protected outlets to comply with the below referenced requirements

- Kitchens shall have GFCI protected outlets when outlets are within six (6) feet of a sink or if rewiring then all outlets on the countertops shall be GFCI protected.
- Bathrooms must have at least one (1) GFCI protected outlet.
- Bar sinks must have at least one (1) GFCI protected outlet.
- All of the accessible outlets in the garage must be GFCI protected.
- All exterior outlets shall be GFCI protected.

**4. Appliance Outlets**

- Appropriate electrical outlets must be provided for all existing appliances.
- Appliances requiring 120 volts may be on a circuit with other outlets so long as there is no evidence of circuit overload.
- Essential motors requiring 240 volts must have a separate dedicated circuit and outlet.

## 5. **Main Panel Board (Circuit Breaker Box)**

The service entrance must be intact, securely fastened, in good condition and sized to safely service all outlets, fixtures and basic appliances

- The service rating shall not be less than 100 amps for single family dwellings. Service ratings under 100 amps shall require a calculation and certification by a qualified authority to be prepared to demonstrate and confirm the rating of the service is sufficient.
- Electric circuit breaker panel box shall be appropriately labeled. The use or purpose of all panel board circuits shall be legibly marked and identified on a circuit directory located on the face or inside the door of the enclosure.
- Panel box shall not be missing any knockouts.
- The panel box shall be grounded at the service.

## J. **Minimum Standards for Heating and Cooling Systems**

### 1. **Thermostatic Controls**

A thermostat that controls both heating and cooling shall be operable and present within the unit and, if replacement is necessary, shall be replaced with a programmable thermostat.

### 2. **Heating**

Gas and oil fired plants shall be rated at 80 AFUE or better. Heat pumps shall comply with the requirement of ARI-240 and UL-559. Units shall be tested, rated and listed accordingly.

### 3. **Distribution System**

Duct coverings shall not flame, glow, smolder or smoke when tested in accordance with ASTM C 411 at the temperature to which they are exposed in service. The test temperature shall not fall below 250 degrees Fahrenheit. External duct installation and factory installed flexible ducts shall be legibly printed or identified at intervals not greater than 36" with the name of the manufacturer; thermal resistance R-value at the specified installed thickness. All duct insulation product R-values shall be based on insulation only.

### 4. **Air conditioning**

Air conditioning equipment shall be installed in accordance with the manufacturer's instructions. Unless the equipment is listed for installation on a combustible surface, such as a floor, or unless the surface is protected

in an approved manner, equipment shall be installed on a surface of noncombustible construction with noncombustible material.

## **K. Minimum Standard for Interiors of Structures**

### **1. Kitchen Standards**

- The kitchen must provide suitable space and equipment to store, prepare and serve foods in a sanitary manner.
- Kitchens shall be equipped with a minimum of one (1) single bowl sink with hot and cold running water. Hot water tap should be located on the left side.
- A continuous and sufficient supply of potable water under adequate pressure shall be provided for all kitchen appliances.
- Kitchen plumbing fixtures shall function as intended and free of water leakage.
- Stove and refrigerator receptacles shall be present.

### **2. Kitchen Appliances and Countertops**

- Kitchen appliances, fixtures and other components shall be in good repair and function as intended.
- Kitchen must have refrigerator and stove receptacles with appropriate appliance connections.
- If present, garbage disposer shall be labeled and shall have a smooth sounding operating noise.
- Stoves and ranges must be equipped with anti-tipping devices, leveled and free of movement.
- A means to vent the stove to the outside shall be present, either by a stove vent hood or a kitchen window located in proximity to the stove.
- Countertop shall be leveled, structurally sound and free of significant warping, deterioration or other irregularities.
- Special built-in spaces or compartments under cabinets and under countertops and in other areas shall be equipped with the appliance it was intended to house. Stove and refrigerator are exempt.

### **3. Kitchen Cabinetry**

- Kitchen cabinets shall be leveled, structurally sound and securely fastened.
- Space between cabinets and surfaces shall be appropriately filled.
- Cabinet doors, drawers and cabinetry hardware shall operate smoothly.
- Cabinets shall be free of defects, irregularities and deterioration.
- Cabinet decking shall be leveled and free of significant warping, deterioration or other irregularities.

#### 4. Bathroom Standards

The bathroom shall be equipped with a minimum of a vanity with a sink, a tub and/or shower with hot and cold running water and at toilet. Hot water taps should be located on the left side.

- Plumbing fixtures and other plumbing components shall be in good repair and operating as intended. Water leakage shall not be present.
- Bath and/or shower compartments shall have waterproof enclosures.
- Bath and/or shower compartments shall be adequately sealed with an appropriate sealant.
- Bathroom vanity tops shall be waterproof and free of any irregularities.
- Shower compartment doors shall be intact and free of leakage.
- Bathrooms shall be adequately vented to the outside by an exhaust fan or by a bathroom vent window that can be opened. The vent window must open to the exterior of the unit. Bathrooms must not be vented to the attic, crawl space or any area inside the dwelling. If installing new ventilation, new exhaust fans must be wired to the light switch. An exception shall be considered on first floor ½ bathrooms where an exterior wall is not present and located below another room which is not the attic. In such a case the installation of air circulating vent fan with a replaceable activated charcoal filter will meet this requirement. A bathroom without a bathtub, shower facilities or other bathing facilities shall be considered a ½ bathroom.
- Bathroom mirrors and medicine chest shall be intact and securely fastened.
- Bathroom vent window shall have a locking device and a mechanism to allow the window to remain partially open. The window must be operable if it is designed as a ventilation device.
- Bathroom cabinetry shall be consistent with the kitchen cabinetry standards.

#### 5. Floor Covering

- Floor coverings must be free of any significant defects and conditions that may cause a tripping hazard.
- Complete replacement of existing floor tile may be necessary if some tiles do not match.
- Floor coverings in the bathroom and kitchen area shall be of the water resistant material rendered smooth and easily cleanable.

- Carpet floor covering shall be reasonably clean and safe. Significantly damaged or worn carpet or defects causing tripping hazards shall be repaired or replaced as necessary. If the carpet is to be replaced, it must be replaced with low VOC hard surface flooring.

#### 6. **Interior Walls and Ceilings**

Ceilings and walls must not have significant defects such as bulging, leaning, holes, loose surface materials, buckling, missing parts or other damage that may result in air infiltration or vermin infestation.

- Walls must be reasonably plumb and the ceiling must be reasonably level.
- Walls and ceilings shall be reasonably clean.
- Paint finishes or other appropriate covers (wallpaper, paneling, etc.) shall be reasonably uniform and in reasonably good condition.
- Solid plaster or wallboard, which must be made of nonhazardous material, which is slightly uneven but sound, shall be acceptable.
- Cracks more than 1/16 of an inch on existing walls and ceilings shall be repaired, left ready to paint and textured to match existing.

#### 7. **Utility Room/Washer and Dryer Connection**

- Washer and dryer connections shall be provided.
- Existing washer water connection shall be free of leakage, intact and securely fastened and function as intended.
- Hot water tap shall be on the left side.
- The water supply line housing shall be intact and flush with the wall.
- Dryer vents that pass through walls or other combustible material shall be metal and vented to the outside.
- Enclosed washer and dryer shall be equipped with an exhaust system, independent of all other systems, and shall convey moisture to the outside.

#### 8. **Bedroom Closets**

- Bedrooms shall have access to a closet located in the bedroom area for storage of clothing.
- Bedroom closets shall have a clothes rod and shelf.
- Closets designed to have access through a door shall have a door.
  - Door and door hardware shall operate smoothly.
- Closet light fixtures shall meet IECC 2009 code and an enclosed lamp.
  - Light fixtures too close to the shelves may cause a hazardous condition and an impediment to the use of the shelves.



## 9. Bedroom Egress

- All bedrooms shall have adequate egress to the exterior of the dwelling unit. If an enclosed patio is adjacent to the bedroom window, it is possible the bedroom may not qualify as a habitable bedroom.
- Emergency escape and rescue windows with bars, grills, covers or screens must be releasable or removable from the inside without the use of a key, tool or force greater than normal operation of the escape and rescue opening.
  - Any impediment to escape or rescue caused by security devices, inadequate window opening size or difficult operating mechanisms shall not be permitted.
- Occupants of a bedroom must be able to get outside the unit in the event of a fire or other emergency requiring quick egress.

## 10. Interior Doors and Hardware

- Doors and door components shall be free of significant defects, deterioration and irregularities.
- Bedroom, bathroom and closet doors and door hardware shall operate smoothly.
- Entrance doors to the master bedroom and bathroom doors shall be equipped with privacy door locks.
  - A privacy door lock may not be required on bathrooms with separate restroom facilities equipped with a door provided the door to the referenced restroom facilities is equipped with a privacy door lock.
- Closet doors shall be equipped with passage door hardware and be able to be opened from the inside.

## 11. Stairs

If replacing existing staircase, stairs will need to conform to code unless there are unusual circumstances, but replacement of individual treads do not need to be in compliance with code. All newly constructed stairs shall comply with the following:

- All stairways and steps of four (4) or more risers shall have at least one (1) handrail. All stairways and steps which are five (5) feet or more in width shall have a handrail on each side.
- All handrails shall be installed not less than 34" nor more than 38", measured plumb, above the nosing of the stair treads. Handrails adjacent to a wall shall have a space of not less than 1 ½ "between the wall and the handrail. All handrails shall be turned back into the wall on railing ends or terminate per code. The size

of a round railing must be a minimum of 1 ¼", but not more than 2". Railings must be continuous from the top riser to the bottom riser.

- Porches, balconies or raised floor surfaces, including stairway riser and/or landing, located more than 30" inches above the floor or grade, shall have guardrails and stair railings shall have immediate rails or ornamental pattern such that a sphere of 4" inches in diameter cannot pass through.
- All stairs and steps shall have a riser height of not more than 8" and a tread depth of not less 9". All newly constructed stairs, not replacement stairs, shall have a riser height of not more than 7 ¾" and a tread depth of not less than 10". Risers and treads cannot be different in size by more than 3/8 of an inch from the top to the bottom of the stairs.

#### **12. Doorbell/Door Viewer**

- The unit shall be equipped with a doorbell or doorknocker.
- The front entry door shall also be equipped with a door viewer with 180degree viewer.
  - Exception: If a sidelight is adjacent to the entry door and/or the entry door has an unobscured glaze at a reasonable height (five (5) feet) a door viewer may not be required.

#### **13. Ceiling Fans**

Existing ceiling fans shall be intact, securely fastened and free of vibration. If ceiling fan fixtures are to be replaced, ceiling fans in the living room and bedrooms shall be replaced with a combination ceiling fan/light fixture.

#### **14. Telephone Connections**

The dwelling shall have at least two (2) pre-wired telephone jacks.

#### **15. Cable TV Connections**

The dwelling shall have at least two (2) pre-wired cable TV connections, generally located at the living/family room and the master bedroom to allow access to required digital television connections.

#### **16. Smoke Alarms/Detectors**

- Smoke detectors shall be installed in accordance with manufacturer's instructions and provided in the following locations:
  - A smoke detector in each room used for sleeping;

- Outside of each bedroom or sleeping area in the immediate vicinity of the bedrooms or sleeping area;
  - If bedrooms or sleeping areas are located on different sides of the unit, the reference above applies to bedrooms and sleeping areas on each side;
  - On each additional story of the dwelling;
  - The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed;
  - Homes built before 1996 shall, at a minimum, have battery operated smoke detectors in sleeping rooms. When feasible, homes should have interconnected hard-wired smoke detectors; and
  - On units built after 1996, when more than one smoke alarm is required in an individual unit, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.
- Carbon monoxide detectors shall be installed in dwellings where natural gas is present and with an attached garage.

## **L. Minimum Standards for Exteriors of Structures**

### **1. Foundations and Structures**

Foundations – Foundations shall be above base flood elevation and will be sound, reasonably level and free from movement.

Structural Walls – Structural framing and masonry shall be free from visible defects. Be adequately sized current loads.

### **2. Windows and Doors**

Exterior Doors – Doors shall be solid, weather-stripped, operate smoothly and include a peep site, a dead bolt of at least one inch and an entrance lock set with a properly secured strike plate.

Windows – All windows shall meet or exceed the International Energy Conservation Code. If windows are to be replaced, they shall be replaced with double pane Low-E aluminum windows. Operable windows shall have a locking device and mechanism to remain partially open.

### **3. Roofing**

Pitched Roofs – Fiberglass asphalt, 3 tab Class A or dimensional shingles with a prorated 20 year manufacturer warranty with adequate ventilation.

Flat and Low Slope Roofing – Built-up roofing flashing and accessories shall be installed to provide a 10-year manufacturer’s warranty.

**4. Exterior Surfaces**

**Exterior Steps and Decks**

Steps, stairways and porch decks will be structurally sound and reasonably level with smooth and even surfaces.

**Exterior Railings**

Handrails will be present on one side of all interior and exterior steps or stairways with more than three (3) risers and around porches or platforms over 30” above ground level. Railing repairs will be historically sensitive.

**Exterior Cladding**

Siding and trim will be intact and weatherproof. All exterior hard wood components, with the exception of brick exteriors, will have full coverage of paint.

**Exterior Hardware**

Every dwelling unit will have 3” high address numbers visible from the street.

**5. Garages**

- a. An attached garage shall have drywall installed on common and supporting walls to livable space and fully painted walls and ceilings.
- b. Attached garage interior walls shall be consistent with the same standards as interior walls.
- c. A detached garage may not have fully painted walls and ceilings or sheetrock completely installed. Exposed wiring shall be intact, securely fastened and safe.
- d. An attached garage vehicle doors and hardware shall operate smoothly.
- e. The interior door on an attached garage shall be a self-closing door and 20 minute fire rated. The interior door cannot open into a bedroom.
- f. A garage door opener will be allowed under special circumstances.

**6. Detached Structures**

Detached buildings that have deteriorated and are unsound causing a hazard to the site or primary residence shall be removed.

## **M. Minimum Standards for Plumbing Systems**

### **1. Water Supply**

All fixtures must be supplied with 2.5 gallons/minute water flows.

### **2. Drain, Waste, Vent Lines**

Waste and vent lines must function without losing the trap seal. Lines shall be installed in accordance with the most recently approved version of the International Plumbing Code.

### **3. Plumbing Minimum Equipment**

Every dwelling unit shall have a minimum of one double bowl sink with hot and cold running water in the kitchen and bathrooms containing a vanity with a sink, and a shower/tub unit, both with hot and cold running water, and a toilet.

### **4. Plumbing Fixtures**

Metal faucets, with flow restrictors in kitchens, shower heads with a flow of 1.5 gpm or less, ceramic toilets with 1.28 gpf or less, stainless steel sinks, fiberglass tub surrounds and 5' tubs.

### **5. Water Heaters**

Each dwelling unit shall have a gas-fired or electric water heater. If replaced, the new water heater should be a high efficiency gas storage heater with an energy factor of at least 0.62. The minimum capacity for units with two bedrooms or less shall be 30 gallons; larger units shall have a minimum capacity of 40 gallons. The discharge pipe shall be installed so as to drain by gravity flow and shall terminate atmospherically not more than 6" above the floor. The end of the discharge pipe shall not be threaded.

## **VIII. MINIMUM ACCEPTABLE STANDARDS – REHABILITATION OF MULTI-FAMILY HOUSING**

### **A. Overview/Applicability**

The following standards must be met for rehabilitating multi-family rental housing. These standards are applicable only to substantial rehabilitation as opposed to new construction. The standards are performance standards, for example, specifying that units must be habitable and in functional condition with maximum life expectancy. The performance standards are similar to codes governing the quality of new construction of housing. This minimum standard applies to all substantial rehabilitation of multi-family housing funding through the City of Phoenix.

The intent of these requirements is to establish minimum property standards and criteria for health and safety of the occupants upon completion of the rehabilitation and to ensure the value of the durability of the property and all improvements. The property and improvements are the collateral for loans/deferred loans provided to finance improvements and the lack of durability can increase the financial risk in the event of default.

More specifically, the model codes do not contain any minimum requirements for the durability of such items as doors, windows, gutters and downspouts, painting and wall coverings, kitchen cabinets and carpeting. The MPS includes minimum standards for these and other items to ensure the value of the property is not decreased by the deterioration of these components but are enhanced via restoration and installation of sustainable materials and equipment.

The City of Phoenix requires developers/owners of multi-family rental housing to ensure compliance with these minimum standards when designing a project, developing the project budget and when submitting applications to the City for funding of such projects. However, the City acknowledges that each project may face unique site, design and financing challenges and will accept and review waivers of specific standards on a case by case basis.

### **B. Compliance with Section 504 of the Rehabilitation Act of 1973**

In addition to compliance with Arizona law, developments using HOME funds must also comply with Section 504 of the Rehabilitation Act of 1973, the Fair Housing Act and HUD's implementation regulations (24 CFR Parts 8 and 100, respectively) which prohibit discrimination based on disability and establish program accessibility and physical accessibility requirements.

Substantially rehabilitated multi-family housing with 15 or more units shall adhere to Section 504 requirements only. If there are more than 15 units that will be rehabilitated greater than 75% of the replacement cost, then 5%, or at least one (1), of the units must meet Section 504.

Section 504 design requirements are satisfied when the development is designed in compliance with the technical criteria in the Uniform Federal Accessibility Standards. Fair Housing Act design requirements found in HUD's Fair Housing Act Design Manual are also required.

To ensure full compliance with Section 504 of the Rehabilitation Act of 1973, the Fair Housing Act and HUD's implementation regulations, the developer and architect must obtain and use:

1. Uniform Federal Accessibility Standards (UFAS)
2. Fair Housing Accessibility Guidelines
3. Fair Housing Act Design Manual

All are available from the HUD Distribution Center (800.767.7468) or at [www.access-board.gov/gs.htm](http://www.access-board.gov/gs.htm) or at [www.huduser.org/publications/pdrpubli.html](http://www.huduser.org/publications/pdrpubli.html).

### **C. Lead Based Paint**

Units built before 1978 shall be inspected and evaluated for the presence of lead based paint in accordance with 24 CFR Part 35 requirements. Units built before 1978 must be inspected by a lead based paint inspector or risk assessor to evaluate and determine the presence of lead based paint on the painted or coated surfaces. If the presence of lead is detected during the evaluation, any deteriorated surfaces must be stabilized in accordance with the requirements of paint stabilization of 24 CFR Part 35.

A copy of the clearance report verifying the stabilization and other lead hazard reduction efforts have been completed to ensure a lead free and safe environment for the occupants shall be provided to the City.

In the best interest of the public, the City of Phoenix reserves the right to rescind federal assistance for acquisition when lead based paint is detected.

### **D. Sustainable Building Methods**

The layout and design of a building and grounds has an impact on energy and water consumption. A well-planned site will preserve much of the natural vegetation, increase the energy efficiency of the building and reduce the amount of storm water leaving the site. In addition the amount of excavation required can

be reduced, thus reducing construction costs and environmental impacts of the construction process.

One goal of resource efficiency is to decrease utility bills, but the ultimate goals are to save energy and reduce pollution. By implementing efficient technologies that save water and energy, developers can protect the environment while helping low and very low income residents save money. Every kilowatt of power that is not consumed reduces energy bills and decreases the amount of carbon dioxide and other pollutants released into the environment during the generation process.

Developers of affordable multi-family housing can help residents reduce energy consumption by engaging in sound conservation procedures and wise investment decisions. Developers that invest in appliances and renovations that are energy efficient and provide resources will see less energy consumption, cost and unit turnover.

Developers are asked to consider building materials that use less and require less energy to manufacture than traditional ones. By using 'green' building materials and techniques you can effectively reduce the environmental footprint of the structure and improve the long term health of the building occupants and the City:

1. Optimize energy performance by using energy efficient appliances and mechanical equipment.
2. Consider renewable energy.
3. Reduce CFC generated by air conditioning systems.
4. Reduce water use by installing low water use appliances and plumbing fixtures.
5. Incorporate the storage and collection of recycled materials in the building design.
6. Design the interior environment to reduce toxic emissions.
7. Incorporate natural lighting and views from interior environment.
8. Use natural materials for exterior finishes.
9. Provide thermal efficiency through high quality insulation, energy efficient windows and doors and roofing materials.

For rental housing, upon project completion, each of the following major systems must have a remaining useful life for a minimum of 15 years or the major systems must be rehabilitated or replaced as part of the rehabilitation work. Major systems include:

- Structural support;
- Roofing;
- Cladding and weatherproofing;



- 
- Plumbing; •
- Electrical;
- Heating, ventilation and air conditioning

For multi-family housing projects of 26 units or more, the useful life of major systems will be determined through a capital needs assessment of the project.

## **E. Energy Efficient Rehabilitation**

When a multi-family development is being rehabilitated, it is an ideal time to incorporate energy saving measures. The older the development, the more likely it needs some updating. Sealing air leaks and properly installing the correct level of insulation will create significant energy savings and improve comfort for residents. Replacing windows, appliances, lighting or heating and cooling equipment with Energy Star qualified products will maximize savings. If the water heater is being replaced, do so with a new energy efficient model and install low flow fixtures.

- a. General Recommendations
  - i. Install an Energy Star qualified programmable thermostat
  - ii. If replacing air conditioning, replace with an Energy Star qualified model with a 13 SEER (or above) cooling efficiency.
  - iii. When replacing windows, choose Energy Star qualified windows with a U-Factor of 0.35 and a SHGC of 0.30 or less.
  - iv. Insulate ceilings to at least R-30.
  - v. Insulate all exterior walls to R-13.
  - vi. Install radiant barriers in the attic above the living spaces.
  - vii. When replacing appliances, replace with Energy Star qualified appliances.
  - viii. Choose Energy Star qualified lighting options.
  - ix. Install Compact Fluorescent Lighting.
  - x. If replacing ceiling fans, replace with Energy Star qualified ceiling fans.
  - xi. If replacing fixtures in bathrooms, replace with low flow fixtures.

### **b. Roof**

Replacing or repairing the roof may result in greater energy efficiency benefits for the home. When replacing the roof, incorporate the measures below to reduce the energy consumption.

- a. Insulate attic to a minimum of R-30.
- b. Install radiant barriers in the attic above living spaces.
- c. Install a gutter system to serve as a pathway for water drainage from the roof.
- d. When replacing the roof, choose reflective, light colored tiles.

c. Kitchen

Energy efficient improvements in the kitchen will improve indoor air quality and decrease moisture and mold problems. Incorporate the following energy efficient measures to reduce energy consumption.

- a. When replacing appliances, replace with Energy Star qualified appliances.
- b. When replacing light fixtures, choose Energy Star qualified lighting options.

d. Bathroom

The outside walls behind the tub and shower are often poorly insulated and air-sealed. Opening these walls as part of the rehabilitation project provides an opportunity to seal air leaks and install insulation. In addition to energy efficient improvements, the measure below should be incorporated to save water and create a healthier bathroom.

- a. When installing new shower heads, faucets or a new toilet, choose a low flow model.
- b. When replacing light fixtures, choose Energy Star qualified lighting options.

e. Plumbing

When upgrading or repairing the plumbing, integrate energy efficient measures as you plan the project.

- a. When replacing the water heater, choose a gas water heater with an EF of 0.62 or higher and a recovery efficiency of 0.76.
- b. When replacing fixtures, choose low flow fixtures.

**F. Crime Free Multi-Housing**

The Phoenix Crime Free Multi-Housing Program (CFMH) was designed to help residents, owners and managers of rental property to keep drugs and other illegal activity off their property. The basic premise of CFMH is that the nature of buildings and layout of a community can attract offenders and make it easier for them to commit crime and escape arrest. The CFMH program focuses on eliminating these features at the design stage to reduce crime and the fear of crime.

Architectural designers should make sure to:

1. Provide clear border definitions of controlled space.
2. Provide clearly marked transitional zones that indicate movement from public to semi-public to private space.
3. Relocate gathering areas to locations with natural surveillance.
4. Place unsafe activities in safe spots to overcome the vulnerability of these activities with natural surveillance and access control of the safe area.

5. Redesign space to increase the perception or reality of natural surveillance.
6. Carefully plan a reduced number of entry points.
7. Place signage to advise visitors what the access restrictions are and where they must go if they are authorized to enter.
8. Eliminate blind spots around the project site where individuals approaching the site cannot be observed.
9. Include fencing and landscaping to direct the circulation flow of persons to a select observable pathway.
10. Make sure that landscape plant material that is selected will not block windows and eliminate opportunities for natural surveillance.
11. Consider the use of reflective glass so that you can see outside but others cannot see in.
12. Plant low vegetation with thorns or other repelling qualities adjacent to first floor windows to prevent outsiders from approaching windows.
13. Provide good outdoor lighting standards that illuminate pathways evenly and without shadow pockets.
14. Pre-wire for future security cameras.

#### **G. Minimum Standard Features in All Units**

The following minimum standard features shall be met when rehabilitating multi-family rental units if existing material and/or appliances are hazardous to the health and safety of the occupants, inoperable, irreparable and must be replaced. If existing materials and/or appliances meet code, are in good condition and offer a reasonable remaining life expectancy, these minimum features may not apply:

##### **1. Exterior Features**

- Existing landscaping shall be restored and maintained.
- Clay brick, cementuous plaster, concrete masonry unit or T-111 or masonite siding on exterior walls.
- Composition roof shingles – Class A fire-rated.
- Flat roof
- Hollow metal, solid core wood or fiberglass clad exterior doors.
- Single cylinder deadbolt and keyless deadbolt at all exterior doors. The deadbolt throw should be long enough to extend beyond the doorframe.
- Bar or pin lock at all exterior sliding doors.

##### **2. Construction & Energy Efficiency Features**

- R-13 fiberglass insulation in exterior walls.
- R-30 fiberglass insulation in ceiling areas.

- 13 SEER (or above) air conditioning system with programmable thermostat.
- Double pane Low E windows with screens on all operable windows.
- Roof ventilation per City code.

### 3. Interior Features

- Hard surface flooring in kitchen, baths, entry ways and utility rooms.
- If carpet found in other rooms of the dwelling is damaged or causes tripping hazards, the flooring shall be replaced with hard surface flooring.
- At least one (1) pre-wired telephone jack.
- At least one (1) pre-wired cable TV connection
- Outlet must be protected if within six (6) feet of a sink.
- Countertops should be level, reasonably sound and in good repair.
- Appliances – refrigerator, vent hood, cooking surfaces and oven shall all be Energy Star rated where such rating is applicable, except for SROs.
- Ceramic tile or ten-year warranty fiberglass molded tub and shower enclosure or equivalent.
- Shower over tubs or stand-alone showers.
- Fully painted walls and ceilings.
- Smoke detectors in all bedrooms and adjacent hallways.
- Carbon monoxide detectors shall be centrally located in units with gas operating appliances.

## H. Minimum Standards for Property and Site

### 1. Streets

- The property must be provided with a safe and adequate pedestrian or vehicular access from a public or private street.
- All streets within and that provide access to the project site must have an all-weather surface and usable during run-off.
  - An all-weather surface is a road surface over which emergency vehicles can pass in all types of weather.
- Private streets must be protected by permanent easements and properly maintained.
  - Private streets shall provide access to all of the property for essential and emergency use.

### 2. Parking/Curbs

- Unless stricter requirements apply, parking shall comply with the following requirements and noted exceptions:

- 1.5 parking spaces per one (1) or two (2) bedroom unit;
- Two (2) parking spaces per three (3) or more bedroom unit;
- Units may one (1) parking space for each dwelling unit with less than 600 square feet regardless of the number of bedrooms;
- Exceptions to parking requirements may be granted for housing that serves special populations such as seniors, disabled, chronically homeless, etc.;
- Parking spaces shall be at least 8'6" x 18' except at designated accessible parking spaces which shall be in compliance with applicable codes; and
- Poured concrete, or equivalent, curb at outer perimeter of onsite drive lanes and parking.

### 3. **Access and Service**

- Dwelling units shall have a means of access in which it is not necessary to pass through any other unit.
- Dwelling units shall have the capacity to be maintained individually without trespassing on adjoining properties.

### 4. **Utilities**

Utilities shall be centralized wherever practicable to realize economies of efficiency in operation or maintenance. Layout of electrical distribution, and where possible of heat and water systems, shall be designed for separate metering whenever differential rates do not cause separate metering to be more expensive, in which case the installation shall be readily convertible to separate metering in the future. Whenever possible, electrical entrances shall be underground leading from a point where overhead service does not intrude upon residential scale.

### 5. **Power Lines/Overhead Wires**

- Power lines including low voltage power lines may not pass over dwellings.
- Power lines may have to be removed or repositioned.
- Overhead wires from the street to the electrical service panel shall be no lower than 12 feet above ground and shall not come in contact with tree branches or other obstacles and shall not be reachable from nearby windows or other accessible areas.

## 6. Landscaping, Lawn Areas and Trees

In general, landscaping including lawn, shrubs, trees and plantings should be indigenous to the City with low water maintenance required and restored if damaged.

- Trees damaging the structure or threatening the structure shall be trimmed or removed.
- Generally trees that require trimming shall have the branches cut back to the main trunk.
- The City of Phoenix does not allow for Mulberry or Olive trees to be planted in the city limits.
- New trees to be installed shall be minimum 15 gallon size trees or larger and shall be appropriately planted and watered to ensure sustainability.

## 7. Fence

- All fence components including fence gates and gate hardware shall operate smoothly.
- The fence and fence gates must be free of any significant defects and irregularities.
- Deteriorated, defective or missing fence components shall be repaired or replaced as necessary.
- All fence components shall be securely fastened in place.
- Electronic access gates shall operate smoothly and appropriately.
- Emergency access shall be provided at mechanically operated gates.

## 8. Play Areas/Play Equipment

Play areas are not required to be preserved and/or maintained and shall be removed if any of the following conditions apply:

- Development contains only one-bedroom or small dwelling units;
- Public park with play equipment is located within 1000 feet of the development (measured from the closest property line to the park as straight line distance, not travel distance); or
- Preservation of such an amenity is not economically feasible or viable.

Play areas/play equipment shall comply with the following requirements:

- Entire play area must be filled with synthetic protective materials and equipped with reasonable play equipment for the size of the lot. The

perimeter shall be designed to keep the play area material from spilling.

- An existing play area scheduled to remain shall be in good repair and in compliance with all applicable safety regulations.
- New play equipment shall be installed in compliance with equipment manufacturer requirements.
- Lumber treated with chromate copper arsenate shall not be used for play equipment.
- Provide drain beneath all permeable play area surface materials with outlet to nearest storm sewer or drainage ditch.
- Provide shade, seating and trash receptacles near all play areas.

#### **9. Trash and Debris**

The property should be free from any accumulation of trash, rubbish and garbage, dead branches, discarded items and other conditions conducive to infestation of insects, vermin and other pests.

Appropriately sized and secure trash receptacles must be provided and properly secured.

#### **10. Drainage**

- Site plan should call for no net increase in runoff rate and quantity, or ideally, a net decrease of runoff post development.
- The site must be graded to provide positive drainage away from the perimeter walls of buildings and to prevent standing water on the site.
- The ground on all sides of each building shall be elevated and shall slope away from all sides of the property for drainage.
- Drainage on site shall drain away from buildings, but not directed to any adjacent housing or structures.
- Drainage of paved areas such as parking lots shall be designed to prevent ponding and directed to proper drainage facilities.
- Drainage shall be directed towards the street, alley or easement facilitated by elevation around the building.

#### **11. Splash Blocks/Gutters**

- Existing gutter and downspouts shall be properly maintained and in working order, or shall be repaired or replaced as needed.
- Gutter downspouts shall require splash blocks, or equivalent, and gutter extensions to carry water away from the structure.
- Gutters, gutter extensions and downspouts must be operating as intended and securely fastened and shall be located and installed in

a manner that does not create a tripping or accident hazard and shall direct water away from the structure.

- Splash blocks shall be correctly installed with open end facing away from the structure.
- Pavestones, gravel or other materials or combination of materials must be approved by the City before they can be substituted for splash blocks or gutters.

## 12. **Paving and Walkways**

Deteriorated walks, driveways and other essential paving shall be repaired or replaced as necessary.

## 13. **Signage**

**Temporary Signage** shall be erected prior to the start of construction and shall remain in place until construction is completed. Such temporary signage shall be located on the project site at a location most visible to the public. Such temporary signage shall meet the following specifications:

- 4'x8" framed, single-face ¾" thick grand plywood mounted on 4"x4" members.
- Sign shall be fully painted on the front, back and sides with two (2) coats of waterproof enamel white paint before any graphics are printed on the sign.
- Wood members used must be preservative treated.
- Sign must be capable of withstanding 50 mph gale winds.

**Permanent development sign** shall be provided and installed in accordance with City zoning and sign ordinance on site from materials consistent with those used in the main property. It shall provide name of development, Equal Housing Opportunity logo and leasing information/phone number.

- For conversion projects involving conversion from commercial to residential, existing signage shall be removed and replaced with permanent signage appropriate to the scale and new use of the property. Existing signage may be modified and remain upon express written approval by the City.

## I. **Minimum Standards for Ventilation, Insulation and Attics**

### 1. **Adequate Ventilation Required**

Every habitable room shall have at least one window, which can easily be opened, or other such device as will ventilate the room per City code.



The total operable window area, in every habitable room, shall be equal to at least 50% of the minimum window area size as required above or 4% of the total floor area per City code, except where there is supplied some other device affording adequate ventilation.

**2. Light and Ventilation Requirements for Bathrooms, Toilet Rooms and Kitchens**

Every bathroom, toilet room, kitchen or other similar room shall have a window area of not less than three (3) square feet. Every bathroom, toilet room and kitchen shall comply with the light and ventilation requirements for habitable rooms as contained above, except that no window shall be required in adequately ventilated bathrooms, toilet rooms or kitchens equipped with a ventilation system installed in accordance with the current building code.

**3. Attic Ventilation**

Natural Ventilation of structural space, such as attics and crawl spaces, must be provided to reduce the effect of conditions of excess heat and moisture which are conducive to decay and deterioration of the structure.

- Attics must have adequate ventilation to allow moisture and excessive heat to escape.
- Attics will be ventilated through the roof or by other appropriate methods.

**4. Attic Support Structure**

- Attic areas will be insulated over living area.
- Insulation will be flush with joist.
- If the existing insulation is not flush with joist, the attic insulation shall be increased to at least R30 rated insulation.
- Attic insulation shall not be required over garage areas.

**J. Minimum Space, Use and Location Requirements**

**1. Minimum Ceiling Height**

Whenever possible, no habitable room in a dwelling or dwelling units shall have a ceiling height of less than 7'6". At least ½ of the floor area of every habitable room located above the first floor shall have a ceiling height of 7'6", and the floor area of that part of the room where the ceiling height is less than 5' shall not be considered as part of the floor area in computing

the total floor area of the room for the purpose of determining maximum floor area.

- A ceiling height of a minimum of 7' is acceptable in bathrooms, toilet rooms, hallways, utility rooms and kitchens.
- All rooms, except kitchen and/or kitchenettes, utility rooms and baths, shall have a minimum width of 7'.

**2. Maintenance of Sleeping, Bath and Toilet Rooms**

No dwelling or dwelling unit containing two (2) or more sleeping rooms shall have such room arrangement that access to a bathroom or toilet room intended for use by the occupants can be had only by going through another sleeping room or bathroom or toilet room.

**3. Occupants to Have Access to Sanitary Facilities**

Every occupant of every dwelling unit shall have unrestricted access to a toilet, bath, kitchen sink and lavatory basin located within that dwelling unit.

**4. Minimum Storage and Counter Areas**

Each dwelling unit shall have at least one (1) closet with a minimum of six (6) square feet of floor area and a minimum height of 6' located within the dwelling unit. Dwelling units with two (2) or more bedrooms shall have a storage floor area of at least four (4) square feet per bedroom. This storage requirement does not necessarily have to be located in the bedrooms.

- Except in SROs, all kitchens shall have a minimum enclosed storage area of eight square feet with a minimum vertical clearance of 12" and a horizontal width of at least 12". Each kitchen shall have a minimum of four (4) square feet of counter area.

**5. Common Areas and Facilities**

Each development at a minimum shall have common areas/facilities to accommodate property management, maintenance, laundry, group/social service activities and mail pick-up/delivery. Areas of common spaces shall be proportional to the number of units in the development. All common facilities provided for residents shall be accessible without passing through the lobby or lounge. If provided, medical and social services, central dining facilities and other similar common facilities (including trash removal) shall be grouped in close proximity to the main circulation elements but in such a way that it is not necessary for a resident to pass through the lobby or lounge to reach them. Proposed furnishings for common areas shall be appropriate for the spaces to be furnished and for the intended resident,

with particular attention given to the needs of elderly and special needs residents.

- **Common Laundry Facilities**

There must be a minimum of one (1) washer and one (1) dryer per 12 dwelling units if washer/dryer hookups are not available in each dwelling unit. If hookups are available in each dwelling unit, there must be a minimum of one (1) washer and one (1) dryer per 20 units. If in addition to washer/dryer hookups, washers and dryers are provided in each unit, a common washer and dryer facility is not required. Where common laundry facilities are provided, such facilities shall include:

- A table or countertop for folding laundry;
- If feasible, a window to the exterior;
- Adequate entrance lighting, which must be on from dusk to dawn to assist in greater security during evening hours;
  - A floor drain; and
- A seating area within or immediately adjacent to, or in the line of sight of the laundry room.

- **Community/Office Space**

- All special needs and elderly developments shall provide a community room, social service space or other common area space for the provision of services and group activities. Such space shall be sized to be proportional to the number of units and number of residents utilizing such space, and must sufficiently accommodate the type of services to be provided.
  - For conversion projects, unoccupied dwelling space may be converted to community space to meet this requirement.
- All developments consisting of 20 or more residential dwelling units or more must have site office of at least 200 square feet (inclusive of accessibility toilet facilities) and a maintenance room of at least 100 square feet.

- **Common Mail Area/Space**

Each dwelling unit shall have a designated mail box provided in a centralized location onsite. If located outside, such location shall be protected from weather. Regardless of location, mail boxes shall be accessible to the mail carrier, convenient to the inhabitants, accessible to all residents and located so as not to be obtrusive.

## 6. **Pest Control/Extermination**

Visible infestation should be properly exterminated. Termites can cause serious problems in the wood structural components of a dwelling and may go undetected for a long period of time. A pest inspection shall be required if the dwelling unit or other structures on the property show evidence of termite infestation. A termite inspection shall be required before notice to proceed to construction and a termite certificate will be required prior to project completion.

## **K. Minimum Standards for Electrical Service and Lighting**

The dwelling shall contain sufficient electrical sources to permit the use of essential appliances while ensuring safety from fire. Each room shall have adequate natural or artificial illumination to permit normal indoor activities and to support the health and safety of the occupants.

### 1. **Electrical Switches and Outlets**

- Every room shall have at least two (2) duplex receptacle and one (1) light fixture or three (3) duplex receptacles.
- Large rooms or rooms with heavy current electrical loads may require three (3) or more outlets.
- All electrical outlets and switches must be operating as intended.
- Sparks or smoke should not be present in electrical outlets.
- Readily accessible electrical outlets shall be randomly tested with a circuit tester to determine if outlets are wired correctly and operating as intended.

### 2. **Light Fixtures**

- Every habitable room must be provided with a light fixture or one (1) outlet controlled by a wall switch.
- Existing wall or ceiling lights with internal switches are acceptable.
- Common or internal stairways from one floor used as a living area to another must have at least one (1) light controlled by a three-way switch.

Exterior stairs with five (5) risers or more shall have a light fixture.

### 3. **Ground Fault Circuits Interrupter (GFCI Electrical Outlets)**

Electrical outlets that are not GFCI protected must be replaced as necessary with GFCI protected outlets to comply with the below referenced requirements

- Kitchens shall have GFCI protected outlets when outlets are within six (6) feet of a sink or if rewiring then all outlets on the countertops shall be GFCI protected.
- Bathrooms must have at least one (1) GFCI protected outlet.
- Bar sinks must have at least one (1) GFCI protected outlet.
- All of the accessible outlets in the garage must be GFCI protected.
- All exterior outlets shall be GFCI protected.

#### 4. **Appliance Outlets**

- Appropriate electrical outlets must be provided for all existing appliances.
- Appliances requiring 120 volts may be on a circuit with other outlets so long as there is no evidence of circuit overload.
- Essential motors requiring 240 volts must have a separate dedicated circuit and outlet.

#### 5. **Main Panel Board (Circuit Breaker Box)**

The service entrance must be intact, securely fastened, in good condition and sized to safely service all outlets, fixtures and basic appliances

- The service rating shall not be less than 100 amps for single family dwellings. Service ratings under 100 amps shall require a calculation and certification by a qualified authority to be prepared to demonstrate and confirm the rating of the service is sufficient.
- Electric circuit breaker panel box shall be appropriately labeled. The use or purpose of all panel board circuits shall be legibly marked and identified on a circuit directory located on the face or inside the door of the enclosure.
- Panel box shall not be missing any knockouts.
- The panel box shall be grounded at the service.

### **L. Minimum Standards for Heating and Cooling Systems**

Heating and cooling systems must:

- Be safe to operate.
- Be protected from destructive elements.
- Have reasonable future utility, durability and economy.
- Have adequate capacity and quality.

#### 1. **Thermostatic Controls**

A thermostat that controls both heating and cooling shall be operable and present within the unit and, if replacement is necessary, shall be replaced with a programmable thermostat.

## 2. Heating

The heating system must be capable of delivering enough heat to assure a healthy environment and a comfortable living condition.

## 3. Duct Distribution System

Existing circulating air ducts shall be insulated including those located in attics and crawl spaces.

## 4. Air Conditioning

The cooling system must be capable of delivering enough cool air to assure a healthy living environment and a comfortable living condition.

- The airflow around the existing condenser must not be obstructed.
- The existing condenser unit must be reasonably level and well supported with the housing intact.
- The unit refrigerant line must have the insulation intact.
- An electric disconnect switch used for maintenance and repairs should be located within sight of the condenser unit. Circuit breaker in the service panel box is acceptable if located within sight of the unit.

## M. Minimum Standards for Interiors

### 1. Kitchens

Every dwelling unit, except SROs shall have a kitchen room or kitchenette equipped with the following:

- Kitchen Sink – It shall contain one double bowl sink with hot and cold running water in the kitchen, properly connected to both hot and cold running water lines, under pressure, and maintained in working order. Hot water tap should be located on the left side.
- Stove – it shall contain a stove (gas or electric) properly connected to the source of power, maintained in working order and capable of supplying the service for which it is intended. Kitchen stoves or ranges must be equipped with anti-tipping devices.
- Stove/range hoods – shall vent to the outside and not to the attic, crawl space or any area inside the dwelling.
- Refrigerator – it shall contain a minimum 18 cubic feet refrigerator with freezer properly connected to the source of power, maintained in working order and capable of supplying the service for which it is intended.
- Countertops – it must have laminate countertops or better and such countertops shall be free of irregularities.

- Cabinets – shall be leveled and securely fastened. Space between cabinets and surfaces shall be appropriately filled (no gaps present). Cabinets shall be free of any irregularities and cabinet doors, drawers and cabinetry hardware shall operate smoothly.
- Special built-in spaces – spaces or compartments under cabinets and under countertops shall be equipped with the appliance it was intended to house.
- Appliances – all appliances must be Energy Star rated and shall be installed in accordance with the manufacturer’s instructions.

**2. Toilet Room Required**

Every dwelling unit, except as otherwise permitted for rooming houses and SROs shall contain a room which is equipped with a flush water closet and a properly installed lavatory. All lavatories shall be properly connected to both hot and cold running water, under pressure and shall be properly maintained in working order.

- All flush water closets shall be properly connected to the water supply, under pressure and shall be maintained in working order.

**3. Shared Toilet Facilities**

Shared toilet rooms shall be equipped with a flush water closet and lavatory basin and shall be connected and maintained as provided in the Toilet Room Required section above. In rooming house type structures, at least one (1) toilet and one (1) lavatory basin, properly connected as set forth above, shall be supplied for each eight (8) persons or fractions thereof residing within a rooming house, including members of the operator’s family whenever they share the use of the facilities provided that in rooming houses where rooms are let to only males, flush urinals may be substituted for not more than ½ of the required number of toilets.

**4. Bath Required**

Every dwelling unit shall contain a bathtub and/or shower except in SROs without such facilities.

Potable water supply piping, water discharge outlets and backflow prevention devices or similar equipment shall not be located as to make possible their submergence in any contaminated or polluted liquid or substance. The bathtub and/or shower may be in the same room as the flush water closet and lavatory or may be in a separate room.

In rooming house type structures, at least one (1) bathtub and/or shower, properly connected as set forth above, shall be supplied for each eight (8) persons or fraction thereof residing within the rooming house, including members of the operator's family whenever they share the use of the facilities.

#### 5. **Bathroom Standards**

The bathroom shall be equipped with a minimum of a vanity with a sink, a tub and/or shower with hot and cold running water and a toilet. Hot water taps should be located on the left side.

- Plumbing fixtures and other plumbing components shall be in good repair and operating as intended. Water leakage shall not be present.
- Bath or shower compartments shall have waterproof enclosures.
- Bath or shower compartments shall be adequately sealed with an appropriate sealant.
- Bathroom vanity tops shall be waterproof and free of any irregularities.
- Shower compartment doors shall be intact and free of leakage.
- Grab bars in shower areas shall be provided in all designated accessible units and in all units in developments exclusively for seniors or special needs populations.
- Bathrooms shall be adequately vented to the outside by an exhaust fan or by a bathroom vent window that can be opened. The vent window must open to the exterior of the unit. Bathrooms must not be vented to the attic, crawl space or any area inside the dwelling. An exception shall be considered on first floor ½ bathrooms where an exterior wall is not present and located below another room which is not the attic. In such a case the installation of air circulating vent fan with a replaceable activated charcoal filter will meet this requirement. A bathroom without a bathtub, shower facilities or other bathing facilities shall be considered a ½ bathroom.
- Bathroom mirrors and medicine chest shall be intact and securely fastened.
- Bathroom vent window shall have a locking device and a mechanism to allow the window to remain partially open.
- Bathroom cabinetry shall be consistent with the kitchen cabinetry standards.



**6. Privacy in Room Containing Toilet and Bath**

Every toilet and every bath shall be contained in a room or within separate rooms, which affords privacy to a person within the rooms.

Toilets and bathrooms shall have doors with a privacy-type lock and such doors, lock and hardware shall be operable and maintained in working order.

**7. Location of Communal Toilets and Baths**

Every communal bath required to be provided in accordance with other provisions shall be located within a room or rooms accessible to the occupants of each dwelling unit sharing facilities, without going through a dwelling unit of another occupant and without going outside of the dwelling.

In rooming housings, rooms shall be located on the same floor as the dwelling unit, or on the floor immediately above or below the dwelling unit whose occupants share the use of the facilities.

**8. Hot and Cold Potable Water Lines to Bath and Kitchen**

Every dwelling shall have supplied water-heating facilities which are properly installed, are maintained in working condition and free of leaks, are properly connected to any required hot water lines and are capable of heating water drawn for every bath as well as general usage.

Hot water storage associated with water heating facilities shall be not less than the following minimum capacities:

One (1) dwelling unit	30 gallons
Two (2) dwelling units	40 gallons
Three (3) or more dwelling units and rooming houses	50 gallons or more

Sizes and/or number of water heaters shall be based upon the number of units served. No water heaters shall be allowed in bathrooms or closets. All water heaters shall be properly vented and sealed and shall be equipped with a pressure relief valve and drip leg.

The City or the applicable local building inspection division may adjust the above referenced capacities up or down based on the type and recovery time of the water heating being installed.

#### 9. **Connection of Sanitary Facilities to Water and Sewer/Septic System**

Every kitchen sink, toilet, lavatory basin and bathtub/shower shall be maintained in working condition and be properly connected to an approved water and sewer or septic system.

#### 10. **Flooring**

- The kitchen and breakfast areas, dining area or dining room, bathrooms, entryways and utility rooms should be provided with hard surface flooring and rendered smooth and cleanable.
- The living room, bedrooms, family rooms and studies/dens must be provided with hard surface flooring.
- All floor coverings must be free of any irregularities.

#### 11. **Interior Walls and Ceilings**

- Walls must be reasonably plumb and the ceiling must be reasonably level.
- Walls and ceilings shall be reasonably clean.
- Paint finishes or other appropriate covers (wallpaper, paneling, etc.) shall be reasonably uniform and in reasonably good condition.
- Walls, ceilings and wall coverings shall be free of visible defects such as poorly taped seams, nail dimples, inconsistent paint and texture, buckling or any other irregularities.

#### 12. **Utility Connections**

If washer/dryer connections are provided within individual dwelling units, the connections shall comply with the following:

- Hot water tap shall be on the left side.
- The water supply line housing shall be intact and flush with the wall.
- Dryer vents that pass through walls or other combustible material shall be metal and vented to the outside.
- Enclosed washer and dryer shall be equipped with an exhaust system, independent of all other systems, and shall convey moisture to the outside.

#### 13. **Closets**

- Bedrooms shall have access to a closet located in the bedroom area for storage of clothing.
- Bedroom closets shall have a clothes rod and shelf.
- Closets designed to have access through a door shall have a door.

- Door and door hardware shall operate smoothly.
- Closet light fixtures shall meet IECC 2009 code and an enclosed lamp.
  - Light fixtures too close to the shelves may cause a hazardous condition and an impediment to the use of the shelves.

#### 14. **Bedroom Egress**

- All bedrooms shall have adequate egress to the exterior of the dwelling unit. If an enclosed patio is adjacent to the bedroom window, it is possible the bedroom may not qualify as a habitable bedroom.
- Emergency escape and rescue windows with bars, grills, covers or screens must be releasable or removable from the inside without the use of a key, tool or force greater than normal operation of the escape and rescue opening.
  - Any impediment to escape or rescue caused by security devices, inadequate window opening size or difficult operating mechanisms shall not be permitted.
- Occupants of a bedroom must be able to get outside the unit in the event of a fire or other emergency requiring quick egress.

#### 15. **Stairs**

Stairs will need to conform as close as possible to the below new construction standards. This requirement will be waived by the City of Phoenix if in an existing structure it would be impossible or cost prohibitive to meet the new construction requirement. In such cases, new stairs could be installed which have the same rise and run as the old.

- All stairways and steps of four (4) or more risers shall have at least one (1) handrail. All stairways and steps which are five (5) feet or more in width shall have a handrail on each side.
- All handrails shall be installed not less than 34" nor more than 38", measured plumb, above the nosing of the stair treads. Handrails adjacent to a wall shall have a space of not less than 1 ½ "between the wall and the handrail. All handrails shall be turned back into the wall on railing ends or terminate per code. The size of a round railing must be a minimum of 1 ¼", but not more than 2". Railings must be continuous from the top riser to the bottom riser.
- Porches, balconies or raised floor surfaces, including stairway riser and/or landing, located more than 30" inches above the floor or grade, shall have guardrails and stair railings shall have immediate rails or ornamental pattern such that a sphere of 4" inches in diameter cannot pass through.

- All stairs and steps shall have a riser height of not more than 8" and a tread depth of not less 9". All newly constructed stairs, not replacement stairs, shall have a riser height of not more than 7 ¾" and a tread depth of not less than 10". Risers and treads cannot be different in size by more than 3/8 of an inch from the top to the bottom of the stairs.

#### 16. Elevators

A minimum of two (2) elevators shall be provided in all multi-story developments and accessible units in such developments shall not be segregated all to one wing or one floor. Where elevators are provided, one shall be a service elevator of sufficient size (5'x7') and be so located as to facilitate tenant move-ins/outs and emergencies. Hooks and removable pads shall be provided in service elevators.

#### 17. Exits

Every exit from every dwelling and/or dwelling unit shall comply with the following requirements:

- It shall be kept in a state of maintenance and repair;
- It shall be unobstructed at all times;
- All stairways and steps of 2 or more risers shall have at least one (1) handrail and all stairways and steps which are five (5) feet or more width or which are open on both sides shall have a handrail on each side;
- Every dwelling unit shall have two (2) independent means of egress;
- All handrails shall be not less than 30" vertically above the nose of the stair treads and not less than 36" above the stairway platform;
- All balconies and platforms, which are 30" or more above grade, shall have a protective railing not less than 36" in height above the balcony or platform level;
- All multiple dwellings, one and two family residences exempted, shall have a second exit stairway or approved fire escape available to all occupants from the second floor and above of all structures; and
- All stairs and steps shall have a rise height of not more than 8" and a tread width of not less than 9". This requirement may be waived by the City of Phoenix if in an existing structure it would be impossible or cost prohibitive to meet this requirement. In such cases, new stairs could be installed that have the same rise and run as the old.

#### 18. Interior Doors and Hardware

- Bedroom, bathroom and closet doors and door hardware shall operate smoothly.
- Entrance doors to the master bedroom and bathroom doors shall be equipped with privacy door locks.
  - A privacy door lock may not be required on bathrooms with separate restroom facilities equipped with a door provided the door to the referenced restroom facilities is equipped with a privacy door lock.
- Closet doors shall be equipped with passage door hardware and be able to be opened from the inside.

#### 19. Window Coverings

All windows in all buildings shall be furnished with window coverings for privacy and control of heat gain/solar shading.

#### 20. Doorbell/Door Viewer

- The unit shall be equipped with a doorbell or doorknocker.
- The front entry door shall also be equipped with a door viewer with 180 degree viewer.
  - Exception: If a sidelight is adjacent to the entry door and/or the entry door has an unobscured glaze at a reasonable height (five (5) feet) a door viewer may not be required.

#### 21. Ceiling Fans

The unit shall be equipped with ceiling fans with light kits located:

- In the living room area; and
- In all the bedrooms.

#### 22. Telephone Connections

- The dwelling shall have at least two (2) pre-wired telephone jacks. Generally located at the kitchen area and Master bedroom.

#### 23. Cable TV Connections

The dwelling shall have at least one (1) pre-wired cable TV connection generally located at the living/family room to allow access to required digital television connections.

#### 24. Smoke Alarms/Detectors

- A smoke detector alarm system designed for the hearing impaired shall be provided in the units required for accessibility and made available as

need for hearing impaired tenants occupying any other unit not included in the minimum set aside for accessible units.

- The smoke detector alarm system shall provide early notification to occupants of the unit in the event of fire. Single and multi-station smoke detectors shall be installed in the following locations:
  - In each sleeping room;
  - Outside of each sleeping area in the immediate vicinity of the bedrooms;
  - On each additional story of the dwelling;
  - When more than one smoke alarm is required in an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with intervening doors closed.

#### **25. Carbon Monoxide Detectors**

- Carbon monoxide detectors shall be installed in units where natural gas is present. At least one carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms at least one detector shall be located in the immediate vicinity but outside the bedrooms.
- Carbon monoxide detectors shall be listed and installed in accordance with their listings.
- Combination carbon monoxide detectors/smoke detectors are acceptable as long as they meet all of the requirements.
  - Exceptions:
    - Carbon monoxide detectors are not required in dwelling units with no combustion appliances and without an attached garage.
    - Carbon monoxide detectors are not required in dwelling units with only direct vent combustion appliances and without an attached garage.
- Carbon monoxide detectors shall be interconnected in such a manner that the actuation of one alarm shall activate all of the alarms in the individual dwelling unit.
- Carbon monoxide detectors shall receive their primary source of power from the building wiring and shall be equipped with a batter back-up. Wiring shall be permanent.

## **N. Minimum Standards for Exteriors of Structures**

### **1. Foundations and Structures**

- Foundations – foundations will be sound, reasonably level and free from movement.
- Structural Walls – structural framing and masonry shall be free from visible defects and be adequately sized for current loads.

### **2. Windows and Doors**

- **Exterior Doors** – Doors shall be solid, weather-stripped, operate smoothly and include a peep site, a dead bolt of at least one inch and an entrance lock set with a properly secured strike plate.
- **Windows** – All windows shall meet or exceed the International Energy Conservation Code. If windows are to be replaced, they shall be replaced with double pane Low-E aluminum windows. Operable windows shall have a locking device and mechanism to remain partially open.
- **Interior Doors/Placement** – all bedrooms, baths and closets shall have well operating doors with locksets.

### **3. Roofing**

- **Pitched Roofs** – Fiberglass asphalt, 3 tab Class A or dimensional shingles with a prorated 20 year manufacturer warranty with adequate ventilation.
- **Flat and Low Slope Roofing** – Built-up roofing flashing and accessories shall be installed to provide a 10-year manufacturer's warranty.

### **4. Exterior Surfaces**

- **Exterior Steps and Decks**  
Steps, stairways and porch decks will be structurally sound and reasonably level with smooth and even surfaces.
- **Exterior Railings**  
Handrails will be present on one side of all interior and exterior steps or stairways with more than three (3) risers and around porches or platforms over 30" above ground level. Railing repairs will be historically sensitive.
- **Exterior Cladding**  
Siding and trim will be intact and weatherproof. All exterior hard wood components, with the exception of brick exteriors, will have full coverage of paint.

- **Exterior Hardware**

Every dwelling unit will have assigned mailbox onsite and a minimum of 3" high address numbers visible from the street.

**O. Minimum Standards for Plumbing Systems**

All plumbing fixtures and plumbing components must be in good repair and in proper working condition free of leaks.

**1. Water Supply**

- The units must be provided with a continuing and sufficient supply of potable water under adequate pressure and of appropriate quality for all household uses.
- Hot taps shall be located on the left side.
- One main water shut-off valve should be located near the entrance of the water service to each building.
- Hose connections shall be protected by backflow prevent devices (vacuum breakers).
  - This does not apply to water heater drain valves.
  - Nor water supply valves intended for connecting clothes washing machines.
- Water supply lines to the kitchen sink, lavatory basin, water heater and other water supply lines must have individual shut-off valves.
- Water line penetrations under kitchen sinks, lavatory basin and at other locations must be adequately sealed. Clean-out penetrations located in the referenced areas or in other locations must be sealed.
- Sinks, basins or pipes shall not leak.
- The following water supply lines shall be appropriately insulated:
  - Water supply lines located in the attic;
  - Water heater cold water supply lines – also applies to water heaters located in the garage; and
  - Water supply lines exposed to the weather.
- Electrical wiring under sinks/basins must meet NEC code for circuit isolation and not present a hazard or threat to the occupants. The wiring must not come in contact with water lines and possible water leakage.
- The main meter compartment shall be free of stagnated water and evidence of possible leakage.

**2. Drain, Waste and Vent Lines**

Units must have sanitary facilities and a safe method of sewage disposal.

- Existing drainage, waste and vent system should be adequately sized to provide drainage and removal of wastes.



- Existing vents must prevent pressure build-up and sewer gas from entering the unit.
- Existing traps or other plumbing components that are broken or leaking shall be repaired or replaced as necessary with similar components and installed in accordance with manufacturer's instructions and current IRC.

### 3. **Water Heaters**

- The water heater shall provide an adequate supply of hot water at all taps.
- Each dwelling unit shall have a gas-fired or electric water heater with at least a minimum capacity of 30 gallons.
- The water heater shall be connected to an appropriate flue to vent combustion gases to the exterior.
- The water heater shall be equipped with an appropriate sized temperature and pressure relief valve with discharge pipe properly installed.
- Water heater discharge line shall be directed approximately six (6) inches above the floor or to the exterior.
- A shut-off valve to the water heater cold supply line shall be present. The valve shall be located at or near the water heater and shall be readily accessible.
- Water heater cold water supply line shall be completely insulated if located in the attic, garage and other locations in which the water heater may be exposed to low temperatures which may result in the referenced line freezing.
- A water heater installed where leakage of the water heater tank or connections may cause damage, shall be installed in a galvanized drain pan or in other pans listed for such use.

**IX. MINIMUM ACCEPTABLE STANDARDS – MINOR REHABILITATION OF MULTI-FAMILY HOUSING MINOR**

The applicable standards must be met for rehabilitating multi-family rental housing. These standards are applicable only to minor rehabilitation as opposed to new construction. The standards are performance standards, for example, specifying that units must be habitable and in functional condition. This minimum standard applies to all minor rehabilitation of multi-family housing funding through the City of Phoenix.

The intent of these requirements is to establish minimum property standards and criteria for health and safety of the occupants upon completion of the rehabilitation and to ensure the value and durability of the improvements. The property and improvements are the collateral for loans/deferred loans provided to finance improvements and the lack of durability can increase the financial risk in the event of default.

More specifically, the model codes do not contain any minimum requirements for the durability of such items as doors, windows, gutters and downspouts, painting and wall coverings, kitchen cabinets and carpeting. The MPS include minimum standards for these and other items to ensure the value of the property is not decreased by the deterioration of these components but are enhanced via restoration and installation of sustainable materials and equipment.

The City of Phoenix requires developers/owners of multi-family rental housing to ensure compliance with these minimum standards when designing a project, developing the project budget and when submitting applications to the City for funding of such projects. However, the City acknowledges that each project may face unique site, design and financing challenges and will accept and review waivers of specific standards on a case by case basis.

When completing a minor rehabilitation, the components of the rehabilitation must meet all applicable codes and follow the standards described under the components applicable section in Chapter VIII, Minimum Acceptable Standards – Rehabilitation of Multi-Family Housing.

**X. MINIMUM ACCEPTABLE STANDARDS – NEW CONSTRUCTION OF SINGLE FAMILY HOUSING**

**A. Overview/Applicability**

The standards contained in this document establish the minimum property standards which must be met for newly constructed single family housing that receives federal assistance for construction. Federal assistance can be in the form of funding to the developer or down payment assistance for a low- moderate income buyer.

The following property standards apply to all newly constructed units that receive federal assistance through the City of Phoenix.

## **B. Sustainable Building Methods**

The layout and design of a building and grounds has an impact on energy and water consumption. A well-planned site will preserve much of the natural vegetation, increase the energy efficiency of the building and reduce the amount of storm water leaving the site. In addition the amount of excavation required can be reduced, thus reducing construction costs and environmental impacts of the construction process.

One goal of resource efficiency is to decrease utility bills, but the ultimate goals are to save energy and reduce pollution. By implementing efficient technologies that save water and energy, developers can protect the environment while helping residents save money. Every kilowatt of power that is not consumed reduces energy bills and decreases the amount of carbon dioxide and other pollutants released into the environment during the generation process.

Developers of single family housing can help residents reduce energy consumption by engaging in sound conservation procedures and wise investment decisions. Developers that invest in appliances and construction methods that are energy efficient and provide resources will see less energy consumption and cost over time.

Developers are asked to consider building materials that use less and require less energy to manufacture than traditional ones. By using 'green' building materials and techniques a developer can effectively reduce the environmental footprint of the structure and improve the long term health of the occupants and the City:

- a. Optimize energy performance by using energy efficient appliances and mechanical equipment.
- b. Consider renewable energy.
- c. Reduce CFC generated by air conditioning systems.

- d. Reduce water use by installing low water use appliances and plumbing fixtures.
- e. Incorporate the storage and collection of recycled materials in the building design.
- f. Design the interior environment to reduce toxic emissions.
- g. Incorporate natural lighting and views from interior environment.
- h. Use natural materials for exterior finishes.
- i. Provide thermal efficiency through high quality insulation, energy efficient windows and doors and roofing materials.

### **C. Energy Efficiency Standard**

The City of Phoenix provides funding to assist in the new construction of both for-sale and rental housing developed by nonprofit and for-profit grantees. The City places various site and design requirements on these projects to maximize their positive impact on the community (a general standard to meet or exceed the quality and design of neighboring houses, walkable connections to community services, service to the site by existing public infrastructure, etc.).

Over the past few years, increasing attention has been paid to improving the energy efficiency of affordable housing. The City has been supportive of local efforts to build more energy efficient housing, believing that such efforts not only make housing more affordable for low and moderate income households to own and maintain but also have positive environmental impacts.

The City of Phoenix grantees are required to ensure that all new construction units developed with City assistance must be built to at least 5-Star Home Energy Standard per the HERS index rating system. Grantees shall have their building plans and specifications reviewed and rated by a certified HERS rater to include (on site pre-drywall inspection) insuring prescriptive/performance approach building methods and quality control. File documentation must be present and certify that the final plans and specifications will achieve a numeric value score on the HERS Index, Energy Star and Efficiency Scales for Rate Homes of 75. The more efficient home will have a lower score. Upon construction completion, the City expects grantees to have new homes tested by a HERS certified rater for confirmation that units were built to the standards outlined in the plans and specifications and the homes achieve the appropriate HERS score related to air infiltration and receive the 5-Satr Home Energy Rating Certificate.

Grantees are encouraged to learn more from the resources listed below:

- One of the most comprehensive resources for both information and links to technical information is the federal government's Energy Star's website at [www.energystar.gov](http://www.energystar.gov).

- HUD's website contains additional information on its Energy Action Plan and other related initiatives at [www.hud.gov/offices/cpd/energyenviron/](http://www.hud.gov/offices/cpd/energyenviron/).
- Partnerships for Home Energy Efficiency is a joint effort of the U.S. Department of Energy, the U.S. Environmental Protection Agency and HUD. The website is [www.energysavers.gov/](http://www.energysavers.gov/).

#### **D. Visitability Standards**

While not specifically included in any standard building code, the term visitability is taking on increased meaning within the housing industry in general and affordable housing in particular. Though some variation in definition exists, most references to visitability relate to building new single family homes in a manner that individuals with mobility limitations can reasonably sustain occupancy. At a minimum, this requires the main floor of a home to have a zero-step main floor entry, doors wide enough to maneuver through in a wheelchair and a half-bathroom.

On a national level, HUD has included scoring preferences within its SuperNOFA for projects promoting visitability standards into their program requirements. The City of Phoenix believes that proper and thoughtful incorporation of visitability features can improve the quality, marketability and livability of homes produced with this standard. Such homes will serve the needs of more families both now and in the future as such features make homes more easily adaptable if a resident develops greater accessibility needs.

- a. From this context, the City of Phoenix is implementing the following requirements:

All new construction single family homes developed with assistance by the City of Phoenix must meet the visitability standards in Item C below unless a specific waiver is granted. Single family homes will include one, two and three unit structures, but the standards will not apply to the second story unit in an over/under duplex.

- b. If granted, waivers will be limited, waiving only the specific requirements that the City determines cannot be reasonably met. For example, a project receiving a waiver of the requirement for a zero-step entry would still be required to include grab bar blocking, a large enough half bath for a wheelchair, wider doorways and halls and appropriately placed environmental controls.
- c. The City of Phoenix will define visitability as requiring the following standards:
  1. A no-step main floor entry with a threshold of less than ½ inch must be provided (this entry may be in the front, back, side or through the garage);

2. All doorways on the main floor must be at least 32 inches wide with the door open at a 90 degree angle (note that achieving this amount of clearance will require at least 34 inch interior doors on the entry level);
3. All hallways on the main floor must be at least 36 inches wide (note that 34 inch doors at the end of a hallway will generally require that the hallway be at least 40 inches wide to allow for door casings);
4. All main floor bathrooms must include blocking for future grab bar installation which is no less than 33 inches and no more than 36 inches above the floor (this policy does not require that grab bars be installed at the time of construction);
5. Every unit must be provided with a least one half-bathroom on the floor with a clear floor space of 30 by 48 inches centered on and contiguous to the sink that is not encroached by the swing path of the bathroom door and a sink and toilet that allow for parallel or head on approach by a person in a wheelchair; and
6. Main floor environmental controls – including light switches and heating and cooling controls must be located at least 15 inches and no more than 48 inches above the floor.

## **E. Minimum Standard Features in all Homes**

### **1. Exterior Features**

- Low water landscape package including trees and shrubbery consistent with comparable homes and surrounding neighborhoods.
- Fully fenced backyard.
- Stucco on exterior walls consistent with comparable homes.
- Tile Roof materials.
- Hollow metal, solid core wood or fiberglass clad exterior doors.
- Keyed lockset and deadbolt on all exterior doors.

### **2. Construction and Energy Features**

- Site survey with base flood elevation noted.
- Concrete slab foundation (above base flood elevation)
- Fully dry-walled attached garage (garages may be excluded if comparable homes within the immediate surrounding neighborhood do not include attached garages).
- R-13 or above fiberglass insulation in exterior walls.
- R-30 fiberglass insulation in ceiling areas that extends to the roof line.
- 14 SEER or above air conditioning system with programmable thermostat.

- Double pane aluminum frame Low E window with screens on all operable windows.
- Adequate roof ventilation.

### 3. Interior Features

- Hard surface flooring in kitchen, baths, entry ways and utility rooms.
- If carpet found in other rooms of the dwelling is damaged or causes tripping hazards, the flooring shall be replaced with hard surface flooring.
- Ice maker connection in the kitchen.
- Two (2) pre-wired telephone jacks.
- Two (2) pre-wired cable TV connections.
- GFCI wiring in wet areas
- Laminate kitchen countertops.
- Appliances – refrigerator, vent hood, cooking surfaces and oven, all Energy Star rated where such rating is applicable.
- Ceramic tile or ten-year warranty fiberglass molded tub and shower enclosure.
- Cultured marble vanity tops in all bathrooms.
- Shower over tubs or stand-alone shower.
- Full painted walls and ceilings including attached garage.
- Smoke detectors in all bedrooms.
- Carbon monoxide detectors to be centrally located in homes with gas operating appliances or attached garage.

### F. Minimum Standards for Property and Site

- The property must be free of those foreseeable hazards and adverse condition, which may affect the health and safety of the occupants, the structural soundness of the unit or which may impair the customary use and enjoyment of the property.
- The dwelling unit must be provided with space necessary to assure suitable living, sleeping, cooking and dining accommodations, sanitary facilities and facilities necessary to create a safe, functional, healthful, durable and energy efficient living environment, including following minimum structure requirements:
- Units with three (3) or more bedrooms must have at least a two (2) car attached garage for parking.
- Units with three or more bedrooms must have at least two (2) full bathrooms. At least one bathroom must be located in a hallway and designed per the Visitability Standards outlined in Item 4 of this Section.

- Units with two (2) stories must have at least one half bathroom located on the first floor designed per the Visitability Standards outlined in Item 4 of this Section and is not provided solely for first floor bedrooms.
- Defective construction, poor workmanship, evidence of continuing settlement, excessive dampness, leakage, decay, termites or other conditions impairing the safety, sanitation or structural soundness of the dwelling shall render the property unacceptable, until the defects or conditions have been remedied and the probability of further damage eliminated.

#### 1. **Streets**

- The property must be provided with a safe and adequate pedestrian or vehicular access from a public or private street.
- All streets must have an all-weather surface and usable during run off.
  - An all-weather surface is a road surface over which emergency vehicles can pass in all types of weather.
- Private streets must be protected by permanent easements and maintained by a Homeowners Association or joint maintenance agreement.
  - Private streets shall provide access to all of the property for essential and emergency use.

#### 2. **Access onto Property**

- Dwelling units shall have a means of access in which it is not necessary to pass through any other unit.
- The backyard shall be accessible without passing through any other unit.
  - For a row type dwelling, the access may be by means of alley, an easement, by passage through the dwelling or by other acceptable means.

#### 3. **Service**

- Dwelling units shall have the capacity to be maintained individually without trespassing on adjoining properties.
- A single drain line in the building that serves more than one unit such as a duplex is not allowed.

#### 4. **Utilities**

- Utilities must be independent for each dwelling unit except that common services, water, sewer, gas and electricity may be provided for the dwelling units under a single mortgage or ownership.
- Dwelling units shall have separate utility service shut-offs.



- Dwelling units shall have individual meters for individual utilities.
- Individual utilities shall not pass over, under or through another unit.
  - Unless provision is made for repair and maintenance of utilities without trespass on adjoining properties.
  - Or legal provision is made for permanent right of access for maintenance and repair of utilities.
- Other facilities must be independent for each dwelling unit, except common services such as laundry and storage space or heating may be provided for two (2) to four (4) living unit buildings under a single mortgage.

**5. Power Lines/Overhead Wires**

- Power lines including low voltage power lines may not pass over the dwelling.
- Power lines may have to be removed or repositioned.
- Overhead wires from the street to the electrical service panel shall be no lower than 12 feet above ground and shall not come in contact with tree branches or other obstacles and shall not be reachable from nearby windows or other accessible areas.
- In the case of new subdivision developments (not in-fill housing), power lines must be underground.

**6. Landscaping, Lawn Areas and Trees**

In general, shrubs, trees and other landscaping shall be installed in a manner consistent with comparable homes.

- New landscaping shall conform to a low maintenance landscaping methods that use indigenous species that are drought-tolerant to conserve water used for irrigation. Native plants should be used.
- Lawn shall be consistent with comparable units.
- No shrubs or trees shall block the natural surveillance of first floor windows.
- Trees:
  - A minimum of one tree will be required in the front yard of each single family unit and properly located on the site.
  - New trees shall be 15 gallon size trees or larger and shall be appropriately planted and watered to ensure sustainability.
  - Existing trees too close to the structure or threatening the structure shall be trimmed or must be removed.
    - Generally, trees that require trimming shall have the branches cut back to the main trunk.

- Existing trees that could damage an adjacent structure above or below the foundation shall be removed.
- Existing trees that present a safety hazard because electrical wiring runs through them shall be trimmed or the trees shall be removed.

#### **7. Backyard Fence**

- The unit must have a fully fenced backyard with an access gate.
- The fence shall extend from the rear and side property lines to the rear of the structure.
- The fence must completely enclose the backyard and any structures located at the back of the property, including detached garage, storage and other structures.
- The fence shall provide security and privacy.
- The fence gate and gate hardware shall operate smoothly.
- The fence and fence gate must be free of any significant defects and irregularities.
- Fence planks and other fence components shall be securely fastened in place.

#### **8. Trash and Debris**

All trash, construction materials, discarded items and all other debris shall be completely removed from the interior and exterior of the premises prior to the final inspection.

#### **9. Drainage**

- The site must meet the City of Phoenix retention requirements as outlined in Section 32A-24 of the City Code.
- Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as not to create a hazard.
- Lots shall be graded so as to provide positive, rapid drainage of surface water away from the perimeter walls of the dwelling and prevent ponding of water on the site.
- The ground on all sides of the unit shall be elevated and should slope away from all sides of the property for drainage.
- Drainage shall be directed towards the street, alley or easement facilitated by elevation around the unit.
- Drainage shall not be directed to any adjacent property.

#### 10. **Splash Blocks/Gutters**

- Gutter downspouts shall require such splash blocks and gutter extensions to carry water away from the structure.
- Gutters, gutter extensions and downspouts must be operating as intended and securely fastened and shall be located and installed in a manner that does not create a tripping or accident hazard and shall direct water away from the structure.
- Splash blocks shall be correctly installed with open end facing away from the structure.
- Pavestones, gravel or other materials or combination of materials must be approved by the City before they can be substituted for splash blocks or gutters.

#### 11. **Paving**

- The front entrance to the unit shall have sidewalks that connect with each existing sidewalks or driveways to provide access to the dwelling.
- Walks, driveways and other essential paving shall be consistent with comparable units.
- Sidewalks on the property will be three (3) feet wide minimum.

### **G. Minimum Standards for Ventilation, Insulation and Attic Access**

#### 1. **Adequate Ventilation Required**

Every habitable room shall have at least one window or skylight which can easily be opened, or other such device that will adequately ventilate the room.

The total operable window area, in every habitable room, shall be equal to at least 50% of the minimum window opening area size or minimum skylight type window size as required above, except where there is supplied some other device affording adequate ventilation.

#### 2. **Light and Ventilation Requirements for Bathrooms, Toilet Rooms and Kitchens**

Every bathroom, toilet room, kitchen or other similar room shall have a window area of not less than three (3) square feet. Every bathroom, toilet room and kitchen shall comply with the light and ventilation requirements for habitable rooms as contained above, except that no window shall be required in adequately ventilated bathrooms, toilet rooms or kitchens equipped with a ventilation system installed in accordance with the current building code.

### 3. **Attic Ventilation**

Natural ventilation of structural space, such as attics and crawl spaces, must be provided to reduce the effect of conditions of excess heat and moisture which are conducive to decay and deterioration of the structure.

- Attics will be ventilated through the roof or other appropriate areas.

### 4. **Attic and Wall Insulation**

- An insulation certificate shall be posted and plainly visible in the attic at the time of the inspection, certifying the insulation has been installed in conformance with the requirements indicated on the certificate to provide thermal resistance.
- In the absence of the insulation certificate, the builder shall provide a copy of the certificate before rendering the unit acceptable.
- At least R-30 rate insulation should be installed in the attic/ceiling area.
- Ceiling over garage may not be insulated.
- Exterior framed walls shall be insulated with R-13 rated or above fiberglass insulation.

### 5. **Attic Access and Attics Containing Appliances**

- Attic access must be located in a hallway or other readily accessible location.
- Attic scuttle lids located in a living area shall be insulated to reduce heat penetration into the home.
  - The attic scuttle shall also close to form a reasonably tight seal flush against the ceiling.
- At least one lighting outlet must be provided in the attic, when mechanical equipment present, controlled by a wall light switch or integral switch. The lighting must be located near the equipment.
- A convenience receptacle outlet shall be present to service appliances located in the attic shall be housing in an electrical box with a cover plate and securely fastened.
- Cables and wiring located within six (6) feet of the scuttle shall be adequately protected.
- Attic containing appliances requiring access:
  - The clear access opening shall be a minimum of 22 inches by 30 inches where such dimensions are large enough to allow the removal of the largest appliance.
  - The passageway to the appliances shall be continuous solid flooring and not less than 22 inches wide.

- A level service space at least 30 inches deep and 30 inches wide shall be present along all sides of the appliances where access is required.
- Exception: A working platform need not be provided when the furnace can be serviced from the required access opening.

## **H. Minimum Space, Use and Location Requirements**

### **1. Minimum Ceiling Height**

No room in a dwelling or dwelling unit shall have a ceiling height of less than 8'.

### **2. Maintenance of Sleeping, Bath and Toilet Rooms**

No dwelling or dwelling unit containing two (2) or more sleeping rooms shall have such room arrangement that access to a bathroom or toilet room intended for use by the occupants can be had only by going through another sleeping room or bathroom or toilet room.

### **3. Occupants to Have Access to Sanitary Facilities**

Every occupant of every dwelling unit shall have unrestricted access to a toilet, bath, kitchen sink and lavatory basin located within that dwelling unit.

### **4. Minimum Storage and Counter Areas**

- Each bedroom shall have a storage floor area of at least eight (8) square feet per bedroom in room. Each dwelling unit shall have at least one (1) closet with a minimum of six (6) square feet of floor space in addition to the bedroom's closets, located within the dwelling unit.
- Kitchens in dwelling units with three (3) or fewer bedrooms shall have a minimum enclosed storage area of 48 cubic feet. Each kitchen shall have a minimum of eight (8) linear feet of counter area.
- Kitchens in dwelling units with four (4) or more bedrooms shall have a minimum enclosed storage of 60 cubic feet and minimum 10 linear feet of counter area.

## **I. Minimum Standards for Electrical Service and Lighting**

The dwelling shall contain sufficient electrical sources to permit the use of essential appliances while ensuring safety from fire. Each room shall have adequate natural or artificial illumination to permit normal indoor activities and to support the health and safety of the occupants.

## 1. **Lighting Outlets**

### Habitable Room Lighting (light fixtures):

- At least one wall switch-controlled lighting fixture shall be installed in every habitable room and bathroom.
- In other than kitchens and bathrooms, one or more receptacles controlled by a wall light switch shall be considered equivalent to the required fixture.
- Additional locations:
- At least one wall switch controlled lighting fixture shall be installed in hallways, stairways and attached garages.
- At least one wall switch controlled lighting fixture shall be installed to provide illumination on the exterior side of each outdoor egress door having grade level access.
- Interior stairways must have a wall switch at each floor level to control the lighting fixture where the stairway has six (6) or more risers.
- Exception: In hallway, stairways and outdoor egress doors remote central or automatic control of lighting shall be permitted.
- All common halls and stairways between living space must be well lighted with a fixture controlled by three-way switches at both ends of the hall or stairway.
- In attics, under floor spaces, utility rooms and basements at least one lighting fixture shall be installed where these spaces are used for storage or equipment that requires servicing. The lighting fixture shall be provided at or near the equipment requiring servicing.

## 2. **Receptacle Outlets in Living Areas**

Generally a receptacle shall be placed at intervals of not less than six (6) feet. All wall space greater than two (2) feet shall have a receptacle.

## 3. **Receptacle Outlets in Kitchen Areas**

- Generally a receptacle outlet shall be placed at intervals of not less than two (2) feet of counter space. There should be one (1) receptacle per 12" of countertop.
- Island and peninsular counter spaces should have at least one receptacle outlet installed on each space.
- Receptacle outlets shall not be more than 18" above the countertop.

## 4. **Other Receptacle Outlets**

- Appliance receptacle outlets shall be installed not more than six (6) feet of the intended location of the appliance.

- Laundry areas shall have at least one (1) 100v receptacle outlet installed for washing machine and one (1) 240v for electric dryer. If natural gas is available, then a gas connection could be provided as an option.
- Hallways which are at least 10 feet or more in length shall have at least one receptacle outlet.
- HVAC outlet shall be at least 30 amp with a disconnect.

**5. Ground Fault Circuit Interrupter (GFCI Electrical Outlets)**

GFCI electrical outlets should be provided in the following areas:

- At least one GFCI outlet located on a bathroom wall that is adjacent to lavatory basin location.
- At least one GFCI receptacle in each attached garage and in each detached garage, including in each unfinished accessory buildings used for storage or work areas.
- At least one wall receptacle outlet accessible at grade level shall be installed outdoor at the front and back of each dwelling unit having direct access to grade.
- The kitchen shall have minimum 20 ampere receptacles that serve countertop surfaces.
- The bar sink shall have minimum 15 ampere receptacles that serve countertop surfaces and located within six (6) feet of the outside edge of a wet bar sink.

**6. Main Panel Board (Circuit Breaker Box)**

- The service entrance must be sized to safely service all outlets, fixtures and appliances in the unit as well as the addition of essential appliances to be installed after the sale of the unit.
  - Essential appliances shall include a stove, refrigerator, microwave oven, dishwasher and washer and dryer.
- The service rating shall not be less than 200 amps for single family dwellings. Service ratings under 200 amps shall require a calculation and certification by a qualified authority to be prepared to demonstrate and confirm the rating of the service is sufficient.
- Electric circuit breaker panel box shall be appropriately labeled. The use or purpose of all panel board circuits shall be legibly marked and identified on a circuit directory located on the face or inside the door of the enclosure.
- Panel box shall not be missing any knockouts.
- The panel box shall be grounded at the service.

## **J. Minimum Standards for Heating and Cooling Systems**

### **1. Thermostatic Controls**

A thermostat that controls both heating and cooling shall be programmable.

### **2. Heating**

- Heating must be adequate for healthful and comfortable living conditions.
- Fuel supply lines have a shutoff valve easily accessible and all piping well supported and protected.
- Gas supply lines should be black iron, steel pipe or corrugated stainless steel tubing.

### **3. Distribution System**

- All circulating air ducts shall be insulated including those located in attics and crawl spaces.
- Air ducts shall be supported above the ceiling and joist and insulation.
  - Metal straps or galvanized wire support metal ducts at intervals not exceeding 10 feet.
  - Nonmetallic ducts shall be supported in accordance with the manufacturer's instructions.

### **4. Air Conditioning**

- Air conditioning equipment shall be installed in accordance with the manufacturer's instructions. Unless the equipment is listed for installation on a combustible surface such as a floor, or unless the surface is protected in an approved manner, equipment shall be installed on a surface of noncombustible construction with noncombustible material.
- The dwelling unit shall be equipped with at 14 SEER or above air conditioning system.
- The compressor and condenser unit must comply with the following:
  - The airflow around the unit must not be obstructed.
  - The unit must be level and well supported with the housing intact.
  - The unit refrigerant line must have the insulation intact.
  - The wiring and connections shall be intact.
  - An electric disconnect switch used for maintenance and repairs should be located within sight of the unit. Circuit breaker at the electric panel box is acceptable.



## **K. Minimum Standards for Interiors of Structures**

### **1. Kitchen Appliances and Countertop**

- Kitchens shall be equipped with a minimum of:
- One double bowl sink with hot and cold running water in the kitchen. Hot water tap should be located on the left side.
- A continuous and sufficient supply of potable water under adequate pressure shall be provided.
- Kitchen shall have a refrigerator receptacle and an icemaker connection.
- The kitchen must have laminate countertops or better and such countertops must be free of any irregularities.
- Stove/range hoods shall vent to the outside and not to the attic, crawl space or any area inside the dwelling.
- Kitchen stoves or ranges must be equipped with anti-tipping devices.
  - Special built-in spaces or compartments under cabinets and under countertops and in other areas shall be equipped with the appliance it was intended to house. Stove/range and refrigerator are exempt.
- All appliances installed must be installed in accordance with the manufacturer's instructions and City code.

### **2. Kitchen Cabinetry**

- Kitchen cabinets shall be leveled, structurally sound and securely fastened.
- Space between cabinets and surfaces shall be appropriately filled.
- Cabinet doors, drawers and cabinetry hardware shall operate smoothly.
- Cabinets shall be free of defects, irregularities and deterioration.

### **3. Bathroom Standards**

- The bathroom shall be equipped with a minimum of a vanity with a sink, a tub and/or shower with hot and cold running water and at toilet. Hot water taps should be located on the left side.
- A continuous and sufficient supply of potable water under adequate pressure shall be provided.
- Bath or shower compartments shall have waterproof enclosures.
- Bath or shower compartments shall be adequately sealed with an appropriate sealant.
- Bathroom vanity tops shall be waterproof and free of any irregularities.
- Full bathrooms shall be equipped with a bathtub and a shower.

- Grab bars shall be installed per the visitability standards in Item 4 of this Section.
- Bathrooms shall be adequately vented to the outside by an exhaust fan or by a bathroom vent window that can be opened. The vent window must open to the exterior of the unit. Bathrooms must not be vented to the attic, crawl space or any area inside the dwelling. An exception shall be considered on first floor ½ bathrooms where an exterior wall is not present and located below another room which is not the attic. In such a case the installation of air circulating vent fan with a replaceable activated charcoal filter will meet this requirement. A bathroom without a bathtub, shower facilities or other bathing facilities shall be considered a ½ bathroom.
- Bathroom mirrors and medicine chest shall be intact and securely fastened.
- Bathroom vent window shall have a locking device and a mechanism to allow the window to remain partially open.
- Bathroom cabinetry shall be consistent with the kitchen cabinetry standards.

#### **4. Flooring**

- The kitchen and breakfast areas, dining area or dining room, bathrooms, entryways and utility rooms shall be provided with hard surface flooring or flooring covered with water resistant material and rendered smooth and cleanable.
- The living room, bedrooms, family rooms and studies/dens must be provided with hard surface flooring unless other flooring type requested by homebuyer when home is purchased during construction.
- All floor coverings must be free of any irregularities.

#### **5. Interior Walls and Ceilings**

- Walls must be plumb and the ceiling must be level.
- Walls and ceilings shall be uniformly painted and textured or have an appropriate covering.
- Walls, ceilings and wall coverings shall be free of visible defects such as poorly taped seams, nail dimples, inconsistent paint and texture, buckling or any other irregularities.

#### **6. Utility Room Standards**

- Washer/dryer connections shall be provided.

- The water supply line housing shall be flush with the wall.
- The hot water connections shall be located on the left side.
- Dryer vents that pass through walls or other combustible material shall be metal and vented to the outside.
- Enclosed washer and dryers shall be provided with an exhaust system, independent of all other systems and shall convey moisture to the outside of the unit.

#### 7. Closets

- Bedrooms shall have access to a closet located in the bedroom area for storage of clothing.
- Bedroom closets shall have a clothes rod and shelf.
- Closets designed to have access through a door shall have a door.
- Door and door hardware shall operate smoothly.
- Closet light fixtures shall not be located too close to the shelves.
  - Light fixtures shall be installed per City code.

#### 8. Bedroom Egress

- All bedrooms shall have adequate egress to the exterior of the dwelling unit. If an enclosed patio is adjacent to the bedroom window, it is possible the bedroom may not qualify as a habitable bedroom.
- Emergency escape and rescue windows with bars, grills, covers or screens must be releasable or removable from the inside without the use of a key, tool or force greater than normal operation of the escape and rescue opening.
  - Any impediment to escape or rescue caused by security devices, inadequate window opening size or difficult operating mechanisms shall not be permitted.
- Occupants of a bedroom must be able to get outside the unit in the event of a fire or other emergency requiring quick egress.

#### 9. Stairs

Stairs must conform to new construction standards. All newly constructed stairs shall comply with the following:

- All stairways and steps of four (4) or more risers shall have at least one (1) handrail. All stairways and steps which are five (5) feet or more in width shall have a handrail on each side.
- All handrails shall be installed not less than 34 inches nor more than 38 inches, measure plumb, above the nosing of the stair treads. Handrails adjacent to a wall shall have a space of not less than 1½" between the wall and the handrail. All handrails shall be

turned back into the wall on railing ends. The size of the round railing must be a minimum of 1 ¼", but not more than 2". Railings must be continuous from the top riser to the bottom riser.

- Porches, balconies or raised floor surfaces, including stairway riser and/or landing, located more than 30" inches above the floor or grade, shall have guardrails and stair railings shall have immediate rails or ornamental pattern such that a sphere of 4" inches in diameter cannot pass through.
- All stairs and steps shall have a riser height of not more than 8" and a tread depth of not less 9". All newly constructed stairs, not replacement stairs, shall have a riser height of not more than 7 ¾" and a tread depth of not less than 10". Risers and treads cannot be different in size by more than 3/8 of an inch from the top to the bottom of the stairs.

#### **10. Interior Doors and Hardware**

- Bedroom, bathroom and closet doors and door hardware shall operate smoothly.
- Closet doors shall be equipped with passage door hardware and be able to be opened from the inside.
- Entrance doors to the master bedroom and bathroom doors shall be equipped with privacy door locks.
  - A privacy door lock may not be required on bathrooms with separate restroom facilities equipped with a door provided the door to the referenced restroom facilities is equipped with a privacy door lock.

#### **11. Doorbell/ Door Viewer**

- The unit shall be equipped with a doorbell or doorknocker.
- The front entry door shall also be equipped with a door viewer.
  - Exception: If a sidelight is adjacent to the entry door and/or the entry door has an unobscured glaze at a reasonable height (5 ft.), a door viewer may not be required.

#### **12. Ceiling Fans**

The unit shall be equipped with ceiling fans with light kits located:

- In the living room area.
- In all bedrooms

### 13. Telephone Connections

The dwelling shall have at least two (2) pre-wired telephone jacks generally located at the kitchen area and master bedroom.

### 14. Cable TV Connections

The dwelling shall have at least two (2) pre-wired cable TV connections generally located in the living/family rooms and the master bedroom.

### 15. Smoke Alarms/Detectors

- The smoke detector alarm system shall provide early notification to occupants of the unit in the event of fire. Single and multi-station smoke detectors shall be installed in the following locations:
  - In each sleeping room;
  - Outside of each sleeping area in the immediate vicinity of the bedrooms;
  - On each additional story of the dwelling;
  - When more than one smoke alarm is required in an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with intervening doors closed.
- A smoke detector alarm system designed for the hearing impaired shall be provided if it is known that the unit shall be occupied by a hearing impaired occupant.

### 16. Carbon Monoxide Detectors

- Carbon monoxide detectors shall be installed in units where natural gas is present. At least one carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms at least one detector shall be located in the immediate vicinity but outside the bedrooms.
- Carbon monoxide detectors shall be listed and installed in accordance with their listings.
- Combination carbon monoxide detectors/smoke detectors are acceptable as long as they meet all of the requirements.
  - Exceptions:
    - Carbon monoxide detectors are not required in dwelling units with no combustion appliances and without an attached garage.

- Carbon monoxide detectors are not required in dwelling units with only direct vent combustion appliances and without an attached garage.
- Carbon monoxide detectors shall be interconnected in such a manner that the actuation of one alarm shall activate all of the alarms in the individual dwelling unit.
- Carbon monoxide detectors shall receive their primary source of power from the building wiring and shall be equipped with a batter back-up. Wiring shall be permanent.

## **L. Minimum Standards for Exteriors of Structures**

### **1. Foundations and Structure**

#### **Foundations** (slab and continuous spread footing)

- Foundations shall be designed and sealed by a professional engineer.
- The foundation should be sound and reasonably level.
- Foundations shall be free of any visible irregularities and visible defects.
- Concrete and masonry foundation walls shall extend above the finished grade adjacent to the foundation a minimum of four (4) inches where masonry veneer is used and a minimum of six (6) inches elsewhere.

#### **Structural (exterior) Walls**

- Exterior walls cladding/siding shall be consistent with comparable homes in the community.
- Structural framing and masonry shall be free from visible defects and adequately sized for current loads.
- Wood cladding/siding shall have at least a ten year manufacturer's warranty.
- Exterior cladding/siding and trim will be intact and weather tight.
- Exterior wood and fiber cement wall components shall have a full and uniform coverage of paint.

#### **Roof Covering**

The roof covering shall prevent moisture from entering and shall provide future utility, durability and economy of maintenance.

- Roofing shall be fiberglass asphalt shingles with a prorated 20 year manufacturer's warranty.
- Flashing shall be installed at wall and roof intersections and wherever there is a change in a roof slope direction and around roof openings.
- Installation of gutters and downspouts shall be consistent with comparable homes.

### **Chimney**

Chimney shall be structurally sound, durable, smoke tight and capable of conveying flue gases to the exterior safely.

- Chimney cap must be present.
- Proper flashing must be present.
- Masonry must be free of any defects or any irregularities.
- Fireplace damper shall operate as intended.
- Fireplace hearth shall be free from defects.
- Gas fireplace shall have a gas shut off valve in proximity.

### **Stairways, Handrails, Decks and Guards (Exterior)**

- Exterior steps, stairways and porch decks shall be structurally sound and reasonably level with smooth and even surfaces.
- Porches, balconies or raised floor surfaces located more than 30 inches above the floor or grade shall have handrails/guards not less than 36 inches in height.
- Stairways with three or more risers should have a handrail at least on one side of the stairway.
  - The handgrip portion of the handrail shall be rounded smooth and safe.

## **2. Exterior Doors and Windows**

### **Exterior/Egress Doors**

Exterior Doors include all doors leading to the outside from the inside and leading into the house or garage from the outside. Connecting doors leading from the inside of the dwelling into the garage shall be considered an exterior/egress door. A vehicle door in a garage shall not be considered an outdoor egress door.

- All exterior/egress doors shall be readily opened from the side from which egress is to be made without the use of a key

or special knowledge or effort. This applies to connecting doors leading from the inside into the garage.

- Exterior/egress doors shall be solid core or metal/fiberglass clad.
- Existing exterior/egress hollow core doors shall be replaced with solid core or wood/metal/fiberglass clad doors.
- All six sides of the door shall be uniformly painted.
- Exterior doors shall be equipped with a single key deadbolt lock and entrance lockset or entry handle-set with a deadbolt and the door and door hardware shall operate smoothly.
- Doors, door hardware and paint coverage on exterior doors shall not be deteriorated.
- Exterior doors shall be weather-stripped and reasonably sealed.
- Glazed entrance doors including storm doors, sliding glass patio doors and glazing immediately adjacent to these doors must be safe and securely fastened.

### **Windows**

- All windows shall meet or exceed the International Energy Conservation Code.
- Double pane Low E windows shall be installed.
- Windows designed to be open shall have a locking device and a mechanism to allow the window to remain partially open.
- Windows and window hardware shall operate smoothly.
- Windows must be operational from the inside of the room without the use of keys or tools or force greater than normal operation.
- All windows designed to be open shall have insect screens.

### **3. Other Exterior Amenities**

#### **Mailbox**

- Units must have individual mailboxes or nearby cluster boxes.

#### **Address Numbers**

The unit must have a minimum of four (4) inch high address numbers placed on the unit and plainly visible and legible from the street or road fronting the property.



#### 4. Garages

- An attached garage shall have drywall installed on common and supporting walls to livable space and fully painted walls and ceilings.
- Attached garage interior walls shall be consistent with the same standards as interior walls.
- A detached garage may not have fully painted walls and ceilings or sheetrock completely installed. Exposed wiring shall be intact, securely fastened and safe.
- An attached garage vehicle doors and hardware shall operate smoothly.
- The interior door on an attached garage shall be a self-closing door and 20 minute fire rated. The interior door cannot open into a bedroom.
- A garage door opener will be allowed under special circumstances.

### M. Minimum Standards for Plumbing Systems

#### 1. Water Supply

- The units must be provided with a continuing and sufficient supply of potable water under adequate pressure and of appropriate quality for all household uses.
- Hot taps shall be located on the left side.
- The main water shut-off valve should be located near the entrance of the water service into the unit.
- Exterior hose connections shall be protected by backflow prevent devices (vacuum breakers).
  - This does not apply to water heater drain valves
  - Nor water supply valves intended for connecting clothes washing machines.
- Water supply lines to the kitchen sink, lavatory basin, water heater and other water supply lines must have individual shut-off valves.
- Water line penetrations under kitchen sinks, lavatory basin and other locations must be adequately sealed. Clean-out penetrations located in the referenced areas or in other locations must be sealed.
- Sinks, basin or pipes shall not leak; puddles or wetness under plumbing fixtures shall not be present.
- The following water supply lines shall be appropriately insulated:
  - Water supply lines located in the attic;
  - Water heater cold water supply lines – also applies to water heaters located in the garage; and
  - Water supply lines exposed to the weather.

- Electrical wiring under sinks/basins must not present a hazard or threat to the occupants. The wiring must not come in contact with water lines and possible water leakage.
- The water meter box shall be free of stagnated water and evidence of possible leakage.

## 2. **Drain, Waste and Vent Lines**

- Units must have sanitary facilities and a safe method of sewage disposal.
- The drainage, waste and vent system should be adequately sized to provide drainage and removal of wastes.
- Vents should prevent build-up and sewer gas from entering the unit.

## 3. **Water Heaters**

- The water heater shall provide an adequate supply of hot water at all taps.
- Each dwelling unit shall have a gas-fired water heater that is a high efficiency gas storage heater with an energy factor of at least 0.62. The minimum capacity for units with two (2) bedrooms or less should be 30 gallons. Larger units should have a minimum capacity of 40 gallons.
- The water heater shall be connected to an appropriate flue, to vent combustion gases to the exterior.
- The water heater shall be equipped with an appropriate sized temperature and pressure relief valve with discharge pipe properly installed.
- Water heater discharge line shall be directed approximately six (6) inches above the floor or to the exterior.
- A shut-off valve to the water heater cold supply line shall be present. The valve shall be located at or near the water heater and shall be readily accessible.
- Water heater cold water supply line shall be completely insulated if located in the attic, garage and other locations in which the water heater may be exposed to low temperatures which may result in the referenced line freezing.
- A water heater installed where leakage of the water heater tank or connections may cause damage, shall be installed in a galvanized drain pan or in other pans listed for such use.

- Gas and electric water heaters located in the garage and that have an ignition source shall be elevated 18 inches above the garage floor.
- Exception: elevation is not required if the water heater is listed as 'flammable vapor resistant' and 'installation without elevation'.
- The water heater shall not be located in any room used or designed for sleeping purposes or in a clothes closet.

## **XI. MINIMUM ACCEPTABLE STANDARDS – NEW CONSTRUCTION OF MULTI-FAMILY HOUSING**

### **A. Overview/Applicability**

The standards contained herein establish the minimum property standards which must be met for newly constructed multi-family residential rental housing. This document establishes the minimum standards to be met when funding for land acquisition and/or construction is provided to an owner, developer or sponsor for development and construction of multi-family rental housing, including housing exclusively for seniors or special needs populations.

### **B. Sustainable Building Methods**

The layout and design of a building and grounds has an impact on energy and water consumption. A well-planned site will preserve much of the natural vegetation, increase the energy efficiency of the building and reduce the amount of storm water leaving the site. In addition the amount of excavation required can be reduced, thus reducing construction costs and environmental impacts of the construction process.

One goal of resource efficiency is to decrease utility bills, but the ultimate goals are to save energy and reduce pollution. By implementing efficient technologies that save water and energy, developers can protect the environment while helping residents save money. Every kilowatt of power that is not consumed reduces energy bills and decreases the amount of carbon dioxide and other pollutants released into the environment during the generation process.

Developers of multi-family housing can help residents reduce energy consumption by engaging in sound conservation procedures and wise investment decisions. Developers that invest in appliances and renovations that are energy efficient and provide resources will see less energy consumption, cost and unit turnover.

Developers are asked to consider building materials that use less and require less energy to manufacture than traditional ones. By using 'green' building materials and techniques you can effectively reduce the environmental footprint of the structure and improve the long term health of the building occupants and the City:

1. Optimize energy performance by using energy efficient appliances and mechanical equipment.
2. Consider renewable energy.
3. Reduce CFC generated by air conditioning systems.
4. Reduce water use by installing low water use appliances and plumbing fixtures.

5. Incorporate the storage and collection of recycled materials in the building design.
6. Design the interior environment to reduce toxic emissions.
7. Incorporate natural lighting and views from interior environment.
8. Use natural materials for exterior finishes.
9. Provide thermal efficiency through high quality insulation, energy efficient windows and doors and roofing materials.

### **C. Energy Efficiency Standard**

The City of Phoenix provides funding to assist in the new construction of both for-sale and rental housing developed by nonprofit and for-profit grantees. The City places various site and design requirements on these projects to maximize their positive impact on the community (a general standard to meet or exceed the quality and design of neighboring houses, walkable connections to community services, service to the site by existing public infrastructure, etc.).

Over the past few years, increasing attention has been paid to improving the energy efficiency of affordable housing. The City has been supportive of local efforts to build more energy efficient housing, believing that such efforts not only make housing more affordable for low and moderate income households to own and maintain but also have positive environmental impacts.

The City of Phoenix grantees are required to ensure that all new construction units developed with City assistance must be built to at least 5-Star Home Energy Standard per the HERS index rating system. Grantees shall have their building plans and specifications reviewed and rated by a certified HERS rater to include (on site pre-drywall inspection) insuring prescriptive/performance approach building methods and quality control. File documentation must be present and certify that the final plans and specifications will achieve a numeric value score on the HERS Index, Energy Star and Efficiency Scales for Rate Homes of 75. The more efficient home will have a lower score. Upon construction completion, the City expects grantees to have new homes tested by a HERS certified rater for confirmation that units were built to the standards outlined in the plans and specifications and the homes achieve the appropriate HERS score related to air infiltration and receive the 5-Star Home Energy Rating Certificate.

Grantees are encouraged to learn more from the resources listed below:

- One of the most comprehensive resources for both information and links to technical information is the federal government's Energy Star's website at [www.energystar.gov](http://www.energystar.gov).
- HUD's website contains additional information on its Energy Action Plan and other related initiatives at [www.hud.gov/offices/cpd/energyenviron/](http://www.hud.gov/offices/cpd/energyenviron/).

- Partnerships for Home Energy Efficiency is a joint effort of the U.S. Department of Energy, the U.S. Environmental Protection Agency and HUD. The website is [www.energysavers.gov/](http://www.energysavers.gov/).

#### **D. Compliance with Section 504 of the Rehabilitation Act of 1973**

In addition to compliance with Arizona law, developments using HOME funds must also comply with Section 504 of the Rehabilitation Act of 1973, the Fair Housing Act and HUD's implementation regulations (24 CFR Parts 8 and 100, respectively) which prohibit discrimination based on disability and establish program accessibility and physical accessibility requirements.

Section 504 design requirements are satisfied when the development is designed in compliance with technical criteria in the Uniform Federal Accessibility Standards. Fair Housing Act design requirements found in HUD's Fair Housing Act Design Manual are also required.

To ensure full compliance with Section 504 of the Rehabilitation Act of 1973, the Fair Housing Act and HUD's implementation regulations, the developer and architect must obtain and use:

- a. Uniform Federal Accessibility Standards (UFAS)
- b. Fair Housing Accessibility Guidelines
- c. Fair Housing Act Design Manual

#### **E. Crime Free Multi Housing**

The Phoenix Crime Free Multi-Housing Program (CFMH) was designed to help residents, owners and managers of rental property to keep drugs and other illegal activity off their property. The basic premise of CFMH is that the nature of buildings and layout of a community can attract offenders and make it easier for them to commit crime and escape arrest. The CFMH program focuses on eliminating these features at the design stage to reduce crime and the fear of crime.

Architectural designers should make sure to:

1. Provide clear border definitions of controlled space.
2. Provide clearly marked transitional zones what indicate movement from public to semi-public to private space.
3. Relocate gathering areas to locations with natural surveillance.
4. Place unsafe activities in safe spots to overcome the vulnerability of these activities with natural surveillance and access control of the safe area.
5. Redesign space to increase the perception or reality of natural surveillance.
6. Carefully plan a reduced number of entry points.

7. Place signage to advise visitors what the access restrictions are and where they must go if they are authorized to enter.
8. Eliminate blind spots around the project site where individuals approaching the site cannot be observed.
9. Include fencing and landscaping to direct the circulation flow of personas to a select observable pathway.
10. Make sure that landscape plant material that is selected will not block windows and eliminate opportunities for natural surveillance.
11. Consider the use of reflective glass so that you can see outside but others cannot see in.
12. Plant low vegetation with thorns or other repelling qualities adjacent to first floor windows to prevent outsiders from approaching windows.
13. Provide good outdoor lighting standards that illuminate pathways evenly and without shadow pockets.
14. Pre-wire for future security cameras.

## **F. Minimum Standard Features**

### **1. Exterior Features**

- Landscape plan required and landscaping to include the use of low-maintenance landscaping methods and materials and drought tolerant indigenous species.
- Landscape shall be designed using the principles of Crime Free Multi-Housing.
- Clay brick, cementitious plaster, concrete masonry unit or 1-111 or flake board siding on exterior walls.
- Composition roof shingles – Class A fire-rated.
- Flat roof
- Hollow metal, solid core wood or fiberglass clad exterior doors.
- Single cylinder deadbolt and keyless deadbolt at all exterior doors. The deadbolt throw should be long enough to extend beyond the doorframe.
- Bar or pin lock at all exterior sliding doors.

### **2. Construction and Energy Efficiency Features**

- Site survey with base flood elevation noted.
- Concrete slab foundation (above base flood elevation).
- R-13 fiberglass insulation in exterior walls.
- R-30 fiberglass insulation in ceiling areas.
- 13 SEER (or above) air conditioning system with programmable thermostat.

- Double pane aluminum frame Low E windows with screens on all operable windows.
- Roof ventilation per City code.

### 3. Interior Features

- Hard surface flooring in kitchen, baths, entry ways and utility rooms.
- If carpet found in other rooms of the dwelling is damaged or causes tripping hazards, the flooring shall be replaced with hard surface flooring.
- Ice maker connection in the kitchen.
- Two (2) pre-wired telephone jacks.
- Two (2) pre-wired cable TV connections.
- GFCI wiring in wet areas
- Laminate kitchen countertops.
- Appliances – refrigerator, vent hood, cooking surfaces and oven, all Energy Star rated where such rating is applicable.
- Ceramic tile or ten-year warranty fiberglass molded tub and shower enclosure.
- Cultured marble vanity tops in all bathrooms.
- Shower over tubs.
- Fully painted walls and ceilings.
- All bedrooms shall have smoke detectors.
- Carbon monoxide detectors to be centrally located in homes with gas operating appliances.

### G. Minimum Standards for Property and Site

- The property must be free of those foreseeable hazards and adverse conditions that may affect the health and safety of the occupants, the structural soundness of the dwelling or which may impair the customary use and enjoyment of the property.
- The dwelling unit must be provided with space necessary to assure suitable living, sleeping, cooking and dining accommodations, sanitary facilities and facilities necessary to create a safe, functional, healthful and durable and energy efficient living environment.
- Defective construction, poor workmanship, evidence of continuing settlement, excessive dampness, leakage, decay, termites or other conditions impairing the safety, sanitation or structural soundness of the dwelling shall render the property unacceptable until the defects or conditions have been remedied and the probability of further damage eliminated.



## 1. Streets

- The property must be provided with a safe and adequate pedestrian or vehicular access from a public or private street.
- All streets within and that provide access to the project site must have an all-weather surface and be usable during run-off.
  - An all-weather road surface is a road surface over which emergency vehicles can pass in all types of weather.
- Private streets must be protected by permanent easements and properly maintained.
- Private streets shall provide access to all of the property for essential and emergency use.

## 2. Parking/Curbs

- Unless stricter requirements apply, parking shall comply with the following requirements and noted exceptions:
  - 1.5 parking spaces for each one or two bedroom or dwelling unit;
  - Units may have less than one (1) parking space for each dwelling unit for special purpose housing i.e. SROs, permanent supportive housing, seniors, etc. Such exceptions shall be reviewed on a case by case basis by the City.
  - Parking spaces shall be at least 8'6" wide except at designated accessible parking spaces which shall be in compliance with applicable codes.
  - Poured concrete, or equivalent, curb at outer perimeter of onsite drive lanes and parking.

## 3. Access and Service

- Dwelling units shall have a means of access in which it is not necessary to pass through any other unit.
- Dwelling units shall have the capacity to be maintained individually without trespassing on adjoining properties.

## 4. Utilities

Utilities shall be centralized wherever practicable to realize economies of efficiency in operation or maintenance. Layout of electrical distribution, and where possible of heat and water systems, shall be designed for separate metering whenever differential rates do not cause separate metering to be more expensive, in which case the installation shall be readily convertible to separate metering in the future. Whenever possible, electrical entrances shall be underground leading from a point where overhead service does not intrude upon residential scale.

#### **5. Power Lines/Overhead Wires**

- Power lines including low voltage power lines may not pass over dwellings.
- Power lines may have to be removed or repositioned.
- Overhead wires from the street to the electrical service panel shall be no lower than 12 feet above ground and shall not come in contact with tree branches or other obstacles and shall not be reachable from nearby windows or other accessible areas.

#### **6. Landscaping, Lawn Areas and Trees**

In general, landscaping shall be installed to compliment the building and maximize the use of open space. A landscape plan prepared by an architect or landscape architect is required and shall incorporate the principles of Crime Free Multi Housing and shall include detailed drawings of landscaping including all features adding to the exterior quality of the development. At a minimum, landscape plans shall meet the following minimum requirements:

- New landscaping shall conform to a low maintenance landscaping methods that use indigenous species that are drought tolerant to conserve water used for irrigation. Native plants should be used.
- Trees:
  - Trees damaging the structure or threatening the structure shall be trimmed or removed.
  - Generally trees that require trimming shall have the branches cut back to the main trunk.
  - The City of Phoenix does not allow for Mulberry or Olive trees to be planted in the city limits.
  - New trees to be installed shall be minimum 15 gallon size trees or larger and shall be appropriately planted and watered to ensure sustainability.
  - Existing, healthy trees shall be preserved and maintained.

#### **7. Trash and Debris**

The property should be free from any accumulation of trash, rubbish and garbage, dead branches, discarded items and other conditions conducive to infestation of insects, vermin and other pests.

Appropriately sized and secure trash receptacles must be provided and properly secured.

## 8. Drainage

- The site must meet the City of Phoenix retention requirements as outlined in Section 32A-24 of the City Code.
- The site must be graded to provide positive drainage away from the perimeter walls of the unit and to prevent standing water on the site.
- The ground on all sides of the unit shall be elevated and shall slope away from all sides of the property for drainage.
- Drainage on site shall drain away from the development, but not directed to any adjacent developments or structures.
- Drainage shall be directed towards the street, alley or easement, facilitated by elevation around the unit.

## 9. Splash Blocks/Gutter

- Gutter downspouts shall require such splash blocks and gutter extensions to carry water away from the structure.
- Gutters, gutter extensions and downspouts must be operating as intended and securely fastened and shall be located and installed in a manner that does not create a tripping or accident hazard and shall direct water away from the structure.
- Splash blocks shall be correctly installed with open end facing away from the structure.
- Pavestones, gravel or other materials or combinations of materials must be approved by the City before they can be substituted for splash blocks or gutters.

## 10. Paving and Walkways

- Essential walks and drives shall be installed.
- The front entrance to the unit shall have sidewalks that connect with other existing sidewalks or driveways to provide access to the dwelling.
- Walks, driveways and other essential paving shall be consistent with comparable units.
- Sidewalks on the property will be three (3) feet wide minimum.

## 11. Signage

**Temporary Signage** shall be erected prior to the start of construction and shall remain in place until construction is completed. Such temporary signage shall be located on the project site at a location most visible to the public. Such temporary signage shall meet the following specifications:

- 4'x8" framed, single-face ¾" thick grand plywood mounted on 4"x4" members.

- Sign shall be fully painted on the front, back and sides with two (2) coats of waterproof enamel white paint before any graphics are printed on the sign.
- Wood members used must be preservative treated.
- Sign must be capable of withstanding 50 mph gale winds.

**Permanent development sign** shall be provided and installed in accordance with City zoning and sign ordinance on site from materials consistent with those used in the main property. It shall provide name of development, Equal Housing Opportunity logo and leasing information/phone number.

## **H. Minimum Standards for Ventilation, Insulation and Attics**

### **1. Adequate Ventilation Required**

Every habitable room shall have at least one window or skylight which can easily be opened, or other such device that will adequately ventilate the room.

The total operable window area, in every habitable room, shall be equal to at least 50% of the minimum window opening area size or minimum skylight type window size as required above, except where there is supplied some other device affording adequate ventilation.

### **2. Light and Ventilation Requirements for Bathrooms, Toilet Rooms and Kitchens**

Every bathroom, toilet room, kitchen or other similar room shall have a window area of not less than three (3) square feet. Every bathroom, toilet room and kitchen shall comply with the light and ventilation requirements for habitable rooms as contained above, except that no window shall be required in adequately ventilated bathrooms, toilet rooms or kitchens equipped with a ventilation system installed in accordance with the current building code.

### **3. Attic Ventilation**

Natural ventilation of structural space, such as attics and crawl spaces, must be provided to reduce the effect of conditions of excess heat and moisture which are conducive to decay and deterioration of the structure.

- Attics must have adequate ventilation to allow moisture and excessive heat to escape.
- Attics will be ventilated through the roof or by other appropriate methods.

#### **4. Attic and Wall Insulation**

- An insulation certificate shall be posted and plainly visible in the attic at the time of the inspection, certifying the insulation has been installed in conformance with the requirements indicated on the certificate to provide thermal resistance.
- In the absence of the insulation certificate, the builder shall provide a copy of the certificate before rendering the unit acceptable.
- At least an R-30 rate insulation should be installed in the attic/ceiling area.
- Exterior framed walls shall be insulated with R-13 rated or above fiberglass insulation.

### **I. Minimum Space, Use and Location Requirements**

#### **1. Minimum Ceiling Height**

No room in a dwelling or dwelling unit shall have a ceiling height of less than 8'.

#### **2. Maintenance of Sleeping, Bath and Toilet Rooms**

No dwelling or dwelling unit containing two (2) or more sleeping rooms shall have such room arrangement that access to a bathroom or toilet room intended for use by the occupants can be had only by going through another sleeping room or bathroom or toilet room.

#### **3. Occupants to have Access to Sanitary Facilities**

Every occupant of every dwelling unit shall have unrestricted access to a toilet, bath, kitchen sink and lavatory basin located within that dwelling unit or for SROs with communal facilities on the same floor as the dwelling units using the individual facilities.

#### **4. Minimum Storage and Counter Areas**

- Each bedroom shall have a storage floor area of at least eight (8) square feet per bedroom in room. Each dwelling unit shall have at least one (1) closet with a minimum of six (6) square feet of floor space in addition to the bedroom's closets, located within the dwelling unit.
- Kitchens in one bedroom or larger units shall a minimum enclosed storage area of 48 cubic feet. Each kitchen shall have a minimum of eight (8) linear feet of counter area.
- Kitchens in efficiency units shall have a minimum enclosed storage of 36 cubic feet and minimum six (6) linear feet of counter area.

## **5. Common Areas and Facilities**

Each development at a minimum shall have common areas/facilities to accommodate property management, maintenance, laundry, group/social service activities and mail pick-up/delivery. Areas of common spaces shall be proportional to the number of units in the development. All common facilities provided for residents shall be accessible without passing through the lobby or lounge. If provided, medical and social services, central dining facilities and other similar common facilities (including trash removal) shall be grouped in close proximity to the main circulation elements but in such a way that it is not necessary for a resident to pass through the lobby or lounge to reach them. Proposed furnishings for common areas shall be appropriate for the spaces to be furnished and for the intended resident, with particular attention given to the needs of elderly and special needs residents.

### **• Common Laundry Facilities**

There must be a minimum of one (1) washer and one (1) dryer per 12 dwelling units if washer/dryer hookups are not available in each dwelling unit. If hookups are available in each dwelling unit, there must be a minimum of one (1) washer and one (1) dryer per 20 units. If in addition to washer/dryer hookups, washers and dryers are provided in each unit, a common washer and dryer facility is not required. Where common laundry facilities are provided, such facilities shall include:

- A table or countertop for folding laundry;
- If feasible, a window to the exterior;
- Adequate entrance lighting, which must be on from dusk to dawn to assist in greater security during evening hours;
- A floor drain; and
- A seating area within or immediately adjacent to, or in the line of sight of the laundry room.

### **• Community/Office Space**

- All special needs and elderly developments shall provide a community room, social service space or other common area space for the provision of services and group activities. Such space shall be sized to be proportional to the number of units and number of residents utilizing such space, and must sufficiently accommodate the type of services to be provided.
  - For conversion projects, unoccupied dwelling space may be converted to community space to meet this requirement.

- All developments consisting of 20 or more residential dwelling units or more must have site office of at least 200 square feet (inclusive of accessibility toilet facilities) and a maintenance room of at least 100 square feet.

- **Common Mail Area/Space**

Each dwelling unit shall have a designated mail box provided in a centralized location onsite. If located outside, such location shall be protected from weather. Regardless of location, mail boxes shall be accessible to the mail carrier, convenient to the inhabitants, accessible to all residents and located so as not to be obtrusive.

## **J. Minimum Standards for Electrical Service and Lighting**

The dwelling shall contain sufficient electrical sources to permit the use of essential appliances while ensuring safety from fire. Each room shall have adequate natural or artificial illumination to permit normal indoor activities and to support the health and safety of the occupants.

### **1. Lighting Outlets**

#### Habitable Room Lighting (light fixtures):

- At least one wall switch-controlled lighting fixture shall be installed in every habitable room and bathroom.
- In other than kitchens and bathrooms, one or more receptacles controlled by a wall light switch shall be considered equivalent to the required fixture.
- Additional locations:
- At least one wall switch controlled lighting fixture shall be installed in hallways, stairways and attached garages.
- At least one wall switch controlled lighting fixture shall be installed to provide illumination on the exterior side of each outdoor egress door having grade level access.
- Interior stairways must have a wall switch at each floor level to control the lighting fixture where the stairway has six (6) or more risers.
- Exception: In hallway, stairways and outdoor egress doors remote central or automatic control of lighting shall be permitted.
- All common halls and stairways between living space must be well lighted with a fixture controlled by three-way switches at both ends of the hall or stairway.
- In attics, under floor spaces, utility rooms and basements at least one lighting fixture shall be installed where these spaces are used for

storage or equipment that requires servicing. The lighting fixture shall be provided at or near the equipment requiring servicing.

## **2. Receptacle Outlets in Living Areas**

Generally a receptacle shall be placed at intervals of not less than six (6) feet. All wall space greater than two (2) feet shall have a receptacle.

## **3. Receptacle Outlets in Kitchen Areas**

- Generally a receptacle outlet shall be placed at intervals of not less than two (2) feet of counter space. There should be one (1) receptacle per 12" of countertop.
- Island and peninsular counter spaces should have at least one receptacle outlet installed on each space.
- Receptacle outlets shall not be more than 18" above the countertop.

## **4. Other Receptacle Outlets**

- Appliance receptacle outlets shall be installed not more than six (6) feet of the intended location of the appliance.
- Laundry areas shall have at least one (1) 100v receptacle outlet installed for washing machine and one (1) 240v for electric dryer. If natural gas is available, then a gas connection could be provided as an option.
- Hallways which are at least 10 feet or more in length shall have at least one receptacle outlet.
- HVAC outlet shall be at least 30 amp with a disconnect.

## **5. Ground Fault Circuit Interrupter (GFCI Electrical Outlets)**

GFCI electrical outlets should be provided in the following areas:

- At least one GFCI outlet located on a bathroom wall that is adjacent to lavatory basin location.
- At least one GFCI receptacle in each attached garage and in each detached garage, including in each unfinished accessory buildings used for storage or work areas.
- At least one wall receptacle outlet accessible at grade level shall be installed outdoor at the front and back of each dwelling unit having direct access to grade.
- The kitchen shall have minimum 20 ampere receptacles that serve countertop surfaces.



- The bar sink shall have minimum 15 ampere receptacles that serve countertop surfaces and located within six (6) feet of the outside edge of a wet bar sink.

#### **6. Main Panel Board (Circuit Breaker Box)**

- The service entrance must be sized to safely service all outlets, fixtures and appliances in the unit as well as the addition of essential appliances to be installed after the sale of the unit.
  - Essential appliances shall include a stove, refrigerator, microwave oven, dishwasher and washer and dryer.
- The service rating shall not be less than 200 amps for single family dwellings. Service ratings under 200 amps shall require a calculation and certification by a qualified authority to be prepared to demonstrate and confirm the rating of the service is sufficient.
- Electric circuit breaker panel box shall be appropriately labeled. The use or purpose of all panel board circuits shall be legibly marked and identified on a circuit directory located on the face or inside the door of the enclosure.
- Panel box shall not be missing any knockouts.
- The panel box shall be grounded at the service.

### **K. Minimum Standards for Heating and Cooling Systems**

#### **1. Thermostatic Controls**

A thermostat that controls both heating and cooling shall be programmable.

#### **2. Heating**

- Heating must be adequate for healthful and comfortable living conditions.
- Fuel supply lines have a shutoff valve easily accessible and all piping well supported and protected.
- Gas supply lines should be black iron, steel pipe or corrugated stainless steel tubing.

#### **3. Distribution System**

- All circulating air ducts shall be insulated including those located in attics and crawl spaces.
- Air ducts shall be supported above the ceiling and joist and insulation.
  - Metal straps or galvanized wire support metal ducts at intervals not exceeding 10 feet.
  - Nonmetallic ducts shall be supported in accordance with the manufacturer's instructions.

#### 4. Air Conditioning

- Air conditioning equipment shall be installed in accordance with the manufacturer's instructions. Unless the equipment is listed for installation on a combustible surface such as a floor, or unless the surface is protected in an approved manner, equipment shall be installed on a surface of noncombustible construction with noncombustible material.
- The dwelling unit shall be equipped with at 14 SEER or above air conditioning system.
- The compressor and condenser unit must comply with the following:
  - The airflow around the unit must not be obstructed.
  - The unit must be level and well supported with the housing intact.
  - The unit refrigerant line must have the insulation intact.
  - The wiring and connections shall be intact.
  - An electric disconnect switch used for maintenance and repairs should be located within sight of the unit. Circuit breaker at the electric panel box is acceptable.

#### L. Minimum Standards for Interiors of Structures

##### 1. Kitchen Standards

Every dwelling unit shall have a kitchen room or kitchenette equipped with the following:

- Kitchen Sink – It shall contain one double bowl sink with hot and cold running water in the kitchen, properly connected to both hot and cold running water lines, under pressure, and maintained in working order. Hot water tap should be located on the left side.
- Stove – it shall contain a stove (gas or electric) properly connected to the source of power, maintained in working order and capable of supplying the service for which it is intended. Kitchen stoves or ranges must be equipped with anti-tipping devices.
- Stove/range hoods – shall vent to the outside and not to the attic, crawl space or any area inside the dwelling.
- Refrigerator – it shall contain a refrigerator with freezer properly connected to the source of power, maintained in working order and capable of supplying the service for which it is intended.
- Countertops – it must have laminate countertops or better and such countertops shall be free of irregularities.

- Cabinets – shall be leveled and securely fastened. Space between cabinets and surfaces shall be appropriately filled (no gaps present). Cabinets shall be free of any irregularities and cabinet doors, drawers and cabinetry hardware shall operate smoothly.
- Special built-in spaces – spaces or compartments under cabinets and under countertops shall be equipped with the appliance it was intended to house.
- Appliances – all appliances must be Energy Star rated and shall be installed in accordance with the manufacturer's instructions.

## 2. Bathroom Standards

All units shall have private bathrooms equipped with a minimum of a vanity with a sink, a tub and/or shower with hot and cold running water and a toilet. Hot water taps should be located on the left side.

- Plumbing fixtures and other plumbing components shall be in good repair and operating as intended. Water leakage shall not be present.
- Bath or shower compartments shall have waterproof enclosures.
- Bath or shower compartments shall be adequately sealed with an appropriate sealant.
- Bathroom vanity tops shall be waterproof and free of any irregularities.
- Shower compartment doors shall be intact and free of leakage.
- Grab bars in shower areas shall be provided in all designated accessible units and in all units in developments exclusively for seniors or special needs populations.
- Bathrooms shall be adequately vented to the outside by an exhaust fan or by a bathroom vent window that can be opened. The vent window must open to the exterior of the unit. Bathrooms must not be vented to the attic, crawl space or any area inside the dwelling. An exception shall be considered on first floor ½ bathrooms where an exterior wall is not present and located below another room which is not the attic. In such a case the installation of air circulating vent fan with a replaceable activated charcoal filter will meet this requirement. A bathroom without a bathtub, shower facilities or other bathing facilities shall be considered a ½ bathroom.
- Bathroom mirrors and medicine chest shall be intact and securely fastened.
- Bathroom vent window shall have a locking device and a mechanism to allow the window to remain partially open.

- Bathroom cabinetry shall be consistent with the kitchen cabinetry standards.

### **3. Privacy in Room Containing Toilet and Bath**

Every toilet and every bath shall be contained in a room or within separate rooms, which affords privacy to a person within the rooms.

Toilets and bathrooms shall have doors with a privacy-type lock and such doors, lock and hardware shall be operable and maintained in working order.

### **4. Hot and Cold Potable Water Lines to Bath and Kitchen**

Every dwelling shall have supplied water-heating facilities which are properly installed, are maintained in working condition and free of leaks, are properly connected to any required hot water lines and are capable of heating water drawn for every bath as well as general usage.

Hot water storage associated with water heating facilities shall be not less than the following minimum capacities:

One (1) dwelling unit	30 gallons
Two (2) dwelling units	40 gallons
Three (3) or more dwelling units and rooming houses	50 gallons or more

Sizes and/or number of water heaters shall be based upon the number of units served. No water heaters shall be allowed in bathrooms or closets. All water heaters shall be properly vented and sealed and shall be equipped with a pressure relief valve and drip leg.

### **5. Connection of Sanitary Facilities to Water and Sewer/Septic Systems**

Every kitchen sink, toilet, lavatory basin and bathtub/shower shall be maintained in working condition and be properly connected to an approved water and sewer or septic system.

### **6. Flooring**

- The kitchen and breakfast areas, dining area or dining room, bathrooms, entryways and utility rooms should be provided with hard surface flooring and rendered smooth and cleanable.

- The living room, bedrooms, family rooms and studies/dens must be provided with hard surface flooring.
- All floor coverings must be free of any irregularities.

#### **7. Interior Walls and Ceilings**

- Walls must be plumb and the ceiling must be level.
- Walls and ceilings shall be uniformly painted and textured or have an appropriate covering.
- Walls, ceilings and wall coverings shall be free of visible defects such as poorly taped seams, nail dimples, inconsistent paint and texture, buckling or any other irregularities.

#### **8. Utility Connections**

If washer/dryer connections are provided within individual dwelling units, the connections shall comply with the following:

- Hot water tap shall be on the left side.
- The water supply line housing shall be intact and flush with the wall.
- Dryer vents that pass through walls or other combustible material shall be metal and vented to the outside.
- Enclosed washer and dryer shall be equipped with an exhaust system, independent of all other systems, and shall convey moisture to the outside.

#### **9. Closets**

- Bedrooms shall have access to a closet located in the bedroom area for storage of clothing.
- Bedroom closets shall have a clothes rod and shelf.
- Closets designed to have access through a door shall have a door.
  - Door and door hardware shall operate smoothly.
- Closet light fixtures shall meet IECC 2009 code and an enclosed lamp.
  - Light fixtures too close to the shelves may cause a hazardous condition and an impediment to the use of the shelves.

#### **10. Bedroom Egress**

- All bedrooms shall have adequate egress to the exterior of the dwelling unit. If an enclosed patio is adjacent to the bedroom window, it is possible the bedroom may not qualify as a habitable bedroom.
- Emergency escape and rescue windows with bars, grills, covers or screens must be releasable or removable from the inside without the use of a key, tool or force greater than normal operation of the escape and rescue opening.

- Any impediment to escape or rescue caused by security devices, inadequate window opening size or difficult operating mechanisms shall not be permitted.
- Occupants of a bedroom must be able to get outside the unit in the event of a fire or other emergency requiring quick egress.

## 11. Stairs

Stairs must conform to new construction standards. All newly constructed stairs shall comply with the following:

- All stairways and steps of four (4) or more risers shall have at least one (1) handrail. All stairways and steps which are five (5) feet or more in width shall have a handrail on each side.
- All handrails shall be installed not less than 34 inches nor more than 38 inches, measure plumb, above the nosing of the stair treads. Handrails adjacent to a wall shall have a space of not less than 1½" between the wall and the handrail. All handrails shall be turned back into the wall on railing ends. The size of the round railing must be a minimum of 1 ¼", but not more than 2". Railings must be continuous from the top riser to the bottom riser.
- Porches, balconies or raised floor surfaces, including stairway riser and/or landing, located more than 30" inches above the floor or grade, shall have guardrails and stair railings shall have immediate rails or ornamental pattern such that a sphere of 4" inches in diameter cannot pass through.
- All stairs and steps shall have a riser height of not more than 8" and a tread depth of not less 9". All newly constructed stairs, not replacement stairs, shall have a riser height of not more than 7 ¾" and a tread depth of not less than 10". Risers and treads cannot be different in size by more than 3/8 of an inch from the top to the bottom of the stairs.

## 12. Elevators

A minimum of two (2) elevators shall be provided in all multi-story developments and accessible units in such developments shall not be segregated all to one wing or one floor. Where elevators are provided, one shall be a service elevator of sufficient size (5'x7') and be so located as to facilitate tenant move-ins/outs and emergencies. Hooks and removable pads shall be provided in service elevators.

### **13. Exits**

Every exit from every dwelling and/or dwelling unit shall comply with the following requirements:

- It shall be kept in a state of maintenance and repair;
- It shall be unobstructed at all times;
- All stairways and steps of 2 or more risers shall have at least one (1) handrail and all stairways and steps which are five (5) feet or more width or which are open on both sides shall have a handrail on each side;
- Every dwelling unit shall have two (2) independent means of egress;
- All handrails shall be not less than 30" vertically above the nose of the stair treads and not less than 36" above the stairway platform;
- All balconies and platforms, which are 30" or more above grade, shall have a protective railing not less than 36" in height above the balcony or platform level;
- All multiple dwellings, one and two family residences exempted, shall have a second exit stairway or approved fire escape available to all occupants from the second floor and above of all structures.

### **14. Interior Doors and Hardware**

- Doors and door components shall be free of significant defects, deterioration and irregularities.
- Bedroom, bathroom and closet doors and door hardware shall operate smoothly.
- Entrance doors to the master bedroom and bathroom doors shall be equipped with privacy locks.
  - A privacy door lock may not be required on bathrooms with separate restroom facilities equipped with a door provided the door to the referenced restroom facilities are equipped with a privacy door lock.
- Closet doors shall be equipped with passage door hardware.

### **15. Window Coverings**

All windows in all buildings shall be furnished with window coverings for privacy and control of heat gain/solar shading.

### **16. Doorbell/Door Viewer**

- The unit shall be equipped with a doorbell or doorknocker.

- The front entry door shall also be equipped with a door viewer.
  - Exception: If a sidelight is adjacent to the entry door and/or the entry door has an unobscured glaze at a reasonable height (5 ft.), a door viewer may not be required.

#### **17. Telephone Connections**

The dwelling shall have at least two (2) pre-wired telephone jacks generally located at the kitchen area and master bedroom.

#### **18. Cable TV Connections**

The dwelling shall have at least two (2) pre-wired telephone jacks generally located at the living/family room and the master bedroom.

#### **19. Smoke Detectors**

- A smoke detector alarm system designed for the hearing impaired shall be provided in the units required for accessibility and made available as need for hearing impaired tenants occupying any other unit not included in the minimum set aside for accessible units.
- The smoke detector alarm system shall provide early notification to occupants of the unit in the event of fire. Single and multi-station smoke detectors shall be installed in the following locations:
  - In each sleeping room;
  - Outside of each sleeping area in the immediate vicinity of the bedrooms;
  - On each additional story of the dwelling;
  - When more than one smoke alarm is required in an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with intervening doors closed.

#### **20. Carbon Monoxide Detectors**

- Carbon monoxide detectors shall be installed in units where natural gas is present. At least one carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms at least one detector shall be located in the immediate vicinity but outside the bedrooms.
- Carbon monoxide detectors shall be listed and installed in accordance with their listings.
- Combination carbon monoxide detectors/smoke detectors are acceptable as long as they meet all of the requirements.



- Exceptions:
- Carbon monoxide detectors are not required in dwelling units with no combustion appliances and without an attached garage.
- Carbon monoxide detectors are not required in dwelling units with only direct vent combustion appliances and without an attached garage.
- Carbon monoxide detectors shall be interconnected in such a manner that the actuation of one alarm shall activate all of the alarms in the individual dwelling unit.
- Carbon monoxide detectors shall receive their primary source of power from the building wiring and shall be equipped with a batter back-up. Wiring shall be permanent.

## **M. Minimum Standards for Exteriors of Structures**

### **1. Foundations and Structures**

#### **Foundations (slab and continuous spread footing)**

- Foundations shall be designed and sealed by a professional engineer.
- The foundation should be sound and reasonably level.
- Foundations shall be free of any visible irregularities and visible defects.
- Concrete and masonry foundation walls shall extend above the finished grade adjacent to the foundation a minimum of four (4) inches where masonry veneer is used and a minimum of six (6) inches elsewhere.

#### **Structural (exterior) Walls**

- Exterior walls cladding/siding shall be consistent with comparable homes in the community.
- Structural framing and masonry shall be free from visible defects and adequately sized for current loads.
- Wood cladding/siding shall have at least a ten year manufacturer's warranty.
- Exterior cladding/siding and trim will be intact and weather tight.
- Exterior wood and fiber cement wall components shall have a full and uniform coverage of paint.

#### **Roof Covering**

The roof covering shall prevent moisture from entering and shall provide future utility, durability and economy of maintenance.

- Roofing shall be fiberglass asphalt shingles with a prorated 20 year manufacturer's warranty.
- Flashing shall be installed at wall and roof intersections and wherever there is a change in a roof slope direction and around roof openings.
- Installation of gutters and downspouts shall be consistent with comparable homes.

### **Chimney**

Chimney shall be structurally sound, durable, smoke tight and capable of conveying flue gases to the exterior safely.

- Chimney cap must be present.
- Proper flashing must be present.
- Masonry must be free of any defects or any irregularities.
- Fireplace damper shall operate as intended.
- Fireplace hearth shall be free from defects.
- Gas fireplace shall have a gas shut off valve in proximity.

### **Stairways, Handrails, Decks and Guards (Exterior)**

- Exterior steps, stairways and porch decks shall be structurally sound and reasonably level with smooth and even surfaces.
- Porches, balconies or raised floor surfaces located more than 30 inches above the floor or grade shall have handrails/guards not less than 36 inches in height.
- Stairways with three or more risers should have a handrail at least on one side of the stairway.
  - The handgrip portion of the handrail shall be rounded smooth and safe.

## **2. Exterior Doors and Windows**

### **Exterior/Egress Doors**

Exterior Doors include all doors leading to the outside from the inside and leading into the house or garage from the outside. Connecting doors leading from the inside of the dwelling into the garage shall be considered an exterior/egress door. An access door in a garage shall not be considered an outdoor egress door.

- All exterior/egress doors shall be readily opened from the side from which egress is to be made without the use of a key or

special knowledge or effort. This applies to connecting doors leading from the inside into the garage.

- Exterior/egress doors shall be solid core or metal/fiberglass clad.
- Existing exterior/egress hollow core doors shall be replaced with solid core or wood/metal/fiberglass clad doors.
- All six sides of the door shall be uniformly painted.
- Exterior doors shall be equipped with a single key deadbolt lock and entrance lockset or entry handle-set with a deadbolt and the door and door hardware shall operate smoothly.
- Doors, door hardware and paint coverage on exterior doors shall not be deteriorated.
- Exterior doors shall be weather-stripped and reasonably sealed.
- Glazed entrance doors including storm doors, sliding glass patio doors and glazing immediately adjacent to these doors must be safe and securely fastened.

#### **Windows**

- All windows shall meet or exceed the International Energy Conservation Code.
- Double pane Low E windows shall be installed.
- Windows designed to be open shall have a locking device and a mechanism to allow the window to remain partially open.
- Windows and window hardware shall operate smoothly.
- Windows must be operational from the inside of the room without the use of keys or tools or force greater than normal operation.
- All windows designed to be open shall have insect screens.

### **3. Other Exterior Amenities**

#### **Building/Unit Numbers**

Each residential building in a development shall be clearly labeled identifying the range of dwelling unit numbers contained in each building. Such building signage shall be designed to be clearly visible to emergency personnel for purpose of responding to security and safety calls.

Each dwelling unit in the development shall have clearly identified unit numbers measuring at least three (3) inches in height and placed near the unit's main entry and plainly visible and legible.

## **N. Minimum Standards for Plumbing Systems**

### **1. Water Supply**

- The units must be provided with a continuing and sufficient supply of potable water under adequate pressure and of appropriate quality for all household uses.
- Hot taps shall be located on the left side.
- One main water shut-off valve should be located near the entrance of the water service to each building.
- Hose connections shall be protected by backflow prevent devices (vacuum breakers).
  - This does not apply to water heater drain valves.
  - Nor water supply valves intended for connecting clothes washing machines.
- Water supply lines to the kitchen sink, lavatory basin, water heater and other water supply lines must have individual shut-off valves.
- Water line penetrations under kitchen sinks, lavatory basin and at other locations must be adequately sealed. Clean-out penetrations located in the referenced areas or in other locations must be sealed.
- Sinks, basins or pipes shall not leak.
- The following water supply lines shall be appropriately insulated:
  - Water supply lines located in the attic;
  - Water heater cold water supply lines – also applies to water heaters located in the garage; and
  - Water supply lines exposed to the weather.
- Electrical wiring under sinks/basins must meet NEC code for circuit isolation and not present a hazard or threat to the occupants. The wiring must not come in contact with water lines and possible water leakage.
- The main meter compartment shall be free of stagnated water and evidence of possible leakage.

### **2. Drain, Waste and Vent Lines**

- Units must have sanitary facilities and a safe method of sewage disposal.
- The drainage, waste and vent system should be adequately sized to provide drainage and removal of wastes.
- Vents should prevent build-up and sewer gas from entering the unit.

### **3. Water Heaters**

- The water heater shall provide an adequate supply of hot water at all taps.

- Each dwelling unit shall have a gas-fired water heater that is a high efficiency gas storage heater with an energy factor of at least 0.62. The minimum capacity for units with two (2) bedrooms or less should be 30 gallons. Larger units should have a minimum capacity of 40 gallons.
- The water heater shall be connected to an appropriate flue, to vent combustion gases to the exterior.
- The water heater shall be equipped with an appropriate sized temperature and pressure relief valve with discharge pipe properly installed.
- Water heater discharge line shall be directed approximately six (6) inches above the floor or to the exterior.
- A shut-off valve to the water heater cold supply line shall be present. The valve shall be located at or near the water heater and shall be readily accessible.
- Water heater cold water supply line shall be completely insulated if located in the attic, garage and other locations in which the water heater may be exposed to low temperatures which may result in the referenced line freezing.
- A water heater installed where leakage of the water heater tank or connections may cause damage, shall be installed in a galvanized drain pan or in other pans listed for such use.
- Water heaters located in the garage and that have an ignition source shall be elevated 18 inches above the garage floor.
  - Exception: elevation is not required if the water heater is listed as 'flammable vapor resistant' and 'installation without elevation'.