**City of Houston**
**Building Inspection**

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*
*Published 11/17/2016*

Section 104.1 of the Building Code states: "The building official is hereby authorized and directed to enforce the provisions of this code. The building official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code."

In compliance with the intent of this section, documents are published which are referred to as CODE WORDS. The updated series of these documents herein will be referred to as CODE WORD 2012 and will replace and supersede all previous CODE WORD documents.

The purpose of CODE WORDS is to provide a single source of written policies, procedures, and information to aid in the successful administration of the Building Code and city ordinances and to promote consistent, uniform practices.

The CODE WORD 2012 documents and additional information are available on the Houston Permitting Center website located at: www.houstonpermittingcenter.org

Revised 07/06/2021

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# Building Inspection
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| Fire and Radiation Dampers in Existing Fire-rated Ceiling Assemblies | Mechanical – 605 | 2012-M05 |
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| **Energy** | | |
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| **CW No:** | **2012-B01** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 14, 1989** | | | | |
| **SUBJECT:** | **Residential Setback** | | | | |
| **CODE(S):** | **Residential & Building** | | | | |
| **SECTION(S)** | **R102 (IRC) and 102 (IBC)** | | | | |

As established by Planning and Development, the location of residences relative to the frontal setback line will be considered in compliance when the outside face of the front wall is behind the setback line. Eaves and gutter overhangs, bay windows, and other limited architectural protrusions into the setback area are acceptable.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-B02** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 1, 1996** | | | | |
| **SUBJECT:** | **Existing Transit Shed** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **102.6 and 311** | | | | |

An existing transit shed shall be classified as a Group S, Division 1 occupancy as provided in Section 311 of the building code. It is assumed that such use was legal at the time of construction and complied with the codes at that time, as addressed in Section 102.6 of the building code.

A new building or change of use shall be classified according to its use or character under the current building code, subject to section 511.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-B03** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **August 6, 1987** | | | | |
| **SUBJECT:** | **Existing Mechanical Room Ceilings** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **102.6** | | | | |

Several methods were approved or accepted by the Building Official in the past to protect the structure within the mechanical room ceilings. All existing methods will be allowed to continue provided that the mechanical room is not part of a vertical opening.

All vertical openings must be protected as required by Appendix L, Life Safety Requirements for Existing Buildings, and the code that was in effect when the building was constructed.

Approved:

Earl N. Greer, Building Official

City of Houston
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| **CW No:** | **2012-B04** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **November 15, 1988** | | | | |
| **SUBJECT:** | **Permits for Various Type Projects** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **105.3** | | | | |

The building official shall require building permits to be issued as specified for the following projects:

1. New shell building with multiple leases or suites.
   - One permit for the shell and one permit for each space.

2. Remodel of more than one lease or suite in an existing building
   - One permit for each space.

3. Remodel of more than one location in the interior concerning the "shell" or "core" of the building.
   - The number of permits is at the option of the applicant.

4. Remodel exterior of multiple buildings.
   - One permit for each building.

Remodeling of any existing occupied area shall not increase the wastewater load or the square footage of the building, lease space or suite. Any change in these items constitutes new construction.

A Certificate of Compliance is available at the option of the applicant once remodeling of the existing occupied area is complete.

Definition: Suite- A group of connected rooms used as a unit.

Approved:

Earl N. Greer, Building Official

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| CW No: | 2012-B05 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | April 09, 2014 | | | | |
| SUBJECT: | Acceptance of Flipped or Reversed Plans | | | | |
| CODE(S): | Building and Residential Code | | | | |
| SECTION(S) | 107 (IBC) and R106 (IRC) | | | | |

Flipped or reversed plans will be accepted when the plans clearly indicate that they are flipped or reversed.

Due to the State of Texas engineering/architectural practice acts, when a plan is sealed by an engineer or architect the notation shall be stamped or printed on the plans. Handwritten notes on sealed plans will not be accepted.

When plans are exempt from the aforementioned practice acts, the note may be handwritten.

Approved:

Earl N. Greer, Building Official

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| CW No: | 2012-B06 | Page: | 1 | of | 1 |
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| PUBLICATION: | November 27, 1995 | | | | |
| SUBJECT: | Plan and Profile Drawings | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 107 | | | | |

A "conditional" permit for a project requiring plan and profile utility drawings may be issued prior to the plan and profile drawing approval provided the owner makes a written request to the building official that includes the following:

1. A description of the work requiring a plan and profile.

2. A confirmed compliance date.

3. A statement acknowledging and agreeing to the condition that if the plan and profile drawing have not been approved by the compliance date, as agreed upon, the City of Houston will not grant final inspection, the Certificate of Occupancy will not be issued and final release of utilities will not be granted.

4. A statement from the owner acknowledging and agreeing to the condition that failure to obtain approval within the specified time may result in citations being issued pursuant to the code.

5. A statement releasing the City of any and all liability for the proposed project in the event that the City is unable to provide the specific utility services proposed in the plan and profile drawings.

The issuance of the "conditional" permit shall be approved by the Building Official and the Manager of the Utility Analysis Section.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-B07** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **October 24, 1988** | | | | |
| **SUBJECT:** | **Requirements for Engineer Seals** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **107.1** | | | | |

The Texas Engineering Practice Act, Section 1001.402, states that a public official of this state, or of a political subdivision of this state, who is responsible for enforcing laws, ordinances, codes or regulations that affect the practice of engineering may accept plans, specifications and other related documents only if those plans, specifications and other related documents were prepared by registered professional engineers, as evidenced by the seal of the engineer.

Section 1001.056 exempts the following from the provisions of the Act:

1. Any private dwelling, one story apartment buildings not exceeding eight units, two story apartment buildings not exceeding four units, garages or other structures pertinent to such buildings;
2. Private buildings used exclusively for farm, ranch or agricultural purposes, or used exclusively for storage of raw agricultural commodities; or
3. Other one story buildings, except public buildings, containing no clear span greater than 24 feet and having a floor area of 5000 square feet or less.

Section 1001.053 exempts the following public works from the provisions of the Act:

1. A public work that involves electrical or mechanical engineering, if the contemplated expense for the completed project is $8000.00 or less.
2. A public work that does not involve electrical or mechanical engineering, if the contemplated expense for the completed project is $20,000.00 or less.

Plans submitted for permits will require engineer seals in accordance with state law unless specifically exempt.

The Office of the Attorney General of the State of Texas has determined that the design of air conditioning systems that licensed air conditioning contractors are permitted to perform under the Air Conditioning Contractor License Law (Article 8861 of V.T.C.S), serves as an exception to the Engineering Practice Act (Article 3271a of V.T.C.S.). Accordingly, the Engineering Practice Act does not apply to design work performed by licensed air conditioning contractors. Similarly, the designs of electrical and plumbing systems that licensed electrical and plumbing contractors are permitted to perform serve as exceptions to the Engineering Practice Act.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-B08** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **January 29, 1992** | | | | |
| **SUBJECT:** | **Survey of Lot** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **107.2.5** | | | | |

The purpose of this policy on survey requirements is to assure that proposed construction does not cross any property lines without proper easements, does not extend onto or across easements without proper written permission, does not violate building line restrictions and does maintain the proper distance from underground pipelines or railroad easements.

Sufficient lot and construction dimension information must be provided to conduct a satisfactory plan review. Acceptable alternates for the survey may be one of the following:

1. A copy of the survey furnished to the buyer when the property was purchased is normally required for all title insurance policies. The owner either has a copy or one may be obtained from the mortgage company holding the note on the property.
2. A complete site plan usually satisfies the intent for a survey. A site plan which is signed, sealed and dated by an architect or engineer, with a statement that it is complete, is acceptable. The site plan shall show all property lines, building setback lines, building locations, easements and indicate the type of easement. The site plan shall show driveway width and radius of turn at the curbs. If the site plan appears to be incomplete or the drawing raises some questions to its accuracy, a survey may be required.
3. For single family residential, a complete site plan usually satisfies the intent for a survey. The site plan shall show all property lines, building setback lines, building locations, easements and indicate the type of easement. The site plan shall show driveway width and radius of turn at the curbs. If the site plan appears to be incomplete or the drawing raises some questions to its accuracy, a survey may be required.
4. A site plan is required when foundation repair is proposed. It must show easements that affect proposed construction, existing buildings and property lines which affects adjacent property owners in those cases where structures are situated on a property with no building setback lines or such construction as townhouses with zero lot line separations.

The following must be included on the site plan:

Easements for permanent encroachment where foundation work extends across the property line of patio homes and zero lot line houses.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-B09** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 4, 2012** | | | | |
| **SUBJECT:** | **Finals on Core/Shell Permits** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **107.3.3 and 110.3.10** | | | | |

Historically, when a shell and core permit was issued and subsequent tenant improvement permits began construction prior to the final of the shell and core, a number of challenges ensued.

Past practice was to have the entire fire sprinkler system installed prior to the core/shell finals. Prior to the tenant improvement final the ceiling was required to be installed to ensure the actuation of the sprinklers. The installation was required regardless of activity on other permits; consequently, after the sprinkler approvals were achieved, a portion of the ceiling system needed to be removed in order to complete the tenant build out. This caused delays and additional expense to the builder without achieving any additional level of fire protection.

When a tenant build out receives a permit and begins construction prior to the core and shell permit receiving all of the final inspection approvals, the following shall apply:

- The core and shell permit final approvals, including the sprinkler approval shall not apply to any portion(s) of the building that are under construction with a valid separate tenant improvement permit.
- Any work done under a tenant improvement will be inspected and approved under the permit issued for the build out and will stand independently from the core/shell approval. Multi-tenant floors shall be served by a completed core build out.
- All fire protection including fire pumps, sprinklers and alarms shall be fully functional in all areas with the exception of turning down sprinkler heads in the area under remodel.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-B10** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **July 2, 2015** | | | | |
| **SUBJECT:** | **Remodel and Repair Permit Fee Calculations** | | | | |
| **CODE(S):** | **Building Code** | | | | |
| **SECTION(S)** | **109.3 and 118** | | | | |

Section 109.3 of the Building Code authorizes the building official to set the valuation of for the purposes of building permits. The code allows for the calculation to be performed solely on the value of the work for which a permit is required and states, "For alterations, remodeling, or repairs the value to be used in computing the permit fee shall be the total value of all construction work for which the permit is issued."

To more appropriately align the permit fee with the true cost of service for remodel and repair permits, valuations will only be the assessed based on the work that requires a permit. In addition, only the permitted work will be inspected and reviewed for compliance.

Section 118 of the Building Code establishes construction permit fees, many of these fees are calculated based on the permit valuation.

For new structures and build-out projects the valuation (or cost of construction) is the contracted amount.

Permit fees for alterations and repair work will hereto forward be interpreted to mean only the items that require a permit. For example, if the complete scope of a repair permit includes new custom countertops, electrical repairs, and replacing damaged studs, the permit valuation would only include the electrical work and stud replacement/repair cost inclusive of the overhead and profits for those items. Please note that the definition of valuation and the valuation determination for new construction and build-outs remain unchanged.

Approved:

Earl N. Greer, Building Official

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| CW No: | 2012-B11 | Page: | 1 | of | 1 |
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| PUBLICATION: | March 6, 1985 | | | | |
| SUBJECT: | Partial Occupancy of Buildings | | | | |
| CODE(S): | Houston Building Code (2012) | | | | |
| SECTION(S) | [A] 111.3 | | | | |

The *Houston Building Code* specifically requires a *Certificate of Occupancy* (*CO*) to be posted in a conspicuous place on the premises of all commercial buildings prior to occupancy. However, the code provisions of Section 111.3 allow for a *Temporary Certificate of Occupancy* (*TCO*) to be issued for the use of a portion or portions of a building prior to completion of the entire building or structure.

**NOTE:** A *TCO* will not be authorized for facilities with occupancies or special uses associated with the following: **(a)** Hazardous Enterprises **(b)** High Piled Combustible Storage.

Where a *TCO* is requested the fire- and life-safety requirements of the *Houston Construction Code* shall be operational throughout all areas of the facility approved to be occupied including all common areas of the facility utilized to access and egress occupied areas.

This code word identifies the policy relative to issuing a *TCO* for partial occupancy of a structure and shall include all applicable provisions of the Fire Code for Fire Department site and building access and the following specific requirements:

1. The portion of the building where occupancy is requested must conform to all code provisions applicable to fire-fighting and life-safety *smoke control systems* including, but not limited to the code provisions of *Section 909.16 – Fire-fighter's smoke control,* and *909.19 – System Acceptance.*
2. In structures with Type 1A, 1B, 2A, 3A, or 5A construction requiring fire-resistance rated protection of the building elements identified in Table 601 of the Building Code; the building elements shall be protected up to and including the space and/or floor being issued a *TCO* for occupancy. Where the ceiling membrane is included as part of the fire-resistance rated floor/ceiling assembly, it shall be installed up to and including the space and/or floor being issued a *TCO* for occupancy.
3. In structures where a standpipe system is required or provided, the standpipe system shall be in operation throughout the structure prior to issuing a *TCO.*
4. Where an automatic sprinkler system is required or provided, it shall be in operation throughout the structure as required by the Building and Fire Codes up to and including the areas receiving a *TCO* for occupancy plus one floor above. Where unoccupied areas do not include a finished ceiling membrane the fire sprinklers heads shall be turned up to protect the structure up to and including one floor above occupied areas.
5. When a fire alarm is required or provided, the alarm system shall be operational as required by the Building and Fire Codes throughout all occupied areas of the structure receiving a *TCO.* Where the alarm is triggered, it shall include operation on the floor of incidence, the floor above and the floor below.

**6.** *TCO* requests for multi-story facilities and facilities specifically requiring *Fire Apparatus Access,* or facilities containing a specific use identified in the *Houston Fire Code* shall be inspected by the Houston Fire Department including all proposed occupied areas prior to issuing a *TCO.* Where provided or required by the *Houston Construction Code* the following specific items shall be operational and inspected prior to issuing a *TCO*:

**(a)** Appropriate *Fire Apparatus Access* and Fire-fighting access up to and including the site and structure, as required by the Building and Fire Codes.

**(b)** An operational *Fire Command Center* shall be provided in all high-rise buildings complying with provisions of the Building and Fire Code. A list of all floors or areas receiving a *TCO* shall be included in the *Fire Command Center.* Other multistory facilities shall include a list of all floors or areas receiving a *TCO* and be available onsite at a location approved by the Fire Code Official.

**(c)** Highrise *Fire Command Centers* shall include a life-safety plan documenting the location of all exits. Other multistory buildings shall maintain a life-safety plan documenting the location of all exits and be available onsite at a location approved by the Fire Code Official. Where stairwell roof access is required by the *Houston Construction Code* the location of the roof access shall be identified on the required life-safety plans.

**(d)** *Fire Depository Boxes* shall be included in the *Fire Command Center* of high-rise buildings. In other multistory buildings *Fire Depository Boxes* shall be provided in a location approved by the Fire Code Official. All *Fire Depository Boxes* shall comply with the provisions of Life Safety Bureau Standard No. 6, Rev. 04 – Fire Depository Boxes.

**(e)** Egress stairway signage shall be installed to comply with the requirements of Appendix H of the Houston Fire Code.

**(f)** *Fire department connections* (*FDC*) shall be operational and signage shall be installed to comply with the requirements of Life Safety Bureau Standard No. 2, Rev. 3 – Inspection and Testing of Fire Protection and Life Safety Equipment, Section 2.5.4.3.

It is the intent of each *TCO* certificate to attest that the portion or portions for which the certificate is issued meets all applicable fire- and life-safety codes including but not limited to the items specifically identified above. When requested, a separate *TCO* certificate shall be issued for each lease space, floor, or portion of the building intended to be occupied as the facility is completed. Appropriate inspections of items identified in this Code Word shall be completed and specifically required items of information updated to comply with the provisions herein.

**NOTE:** Every effort shall be made to complete inspections associated with a *TCO* request within 24-hours of scheduling with the appropriate inspection departments.

Approved: Mark Savasta, Building Official MSH

Approved: Donna Michelle McLeod, Fire Marshal

| CW No: | 2012-B12 | Page: | 1 | of | 2 |
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| PUBLICATION: | December 23, 1986 | | | | |
| SUBJECT: | Certificates of Occupancy and Compliance | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 111 | | | | |

The purpose of this policy is to set guidelines for the transition of occupancy classification and types of construction from the previous code to the designations in the current code. For a point of clarification it would not make any difference what designations are shown on the certificates as long as the authority having jurisdiction knows what the designation means as to the use and construction types and also the code that was in effect when the building was constructed. With this in mind, the following procedures will be used in the future:

1. The current building code occupancy classification and type of construction will be shown on all occupancy or compliance certificates that are issued from occupancy inspection reports. The certificates will be coded as to which code was used in inspecting the building as follows:

   2012 Code- Buildings submitted for permit after February 1st, 2016
   2006 Code- Buildings submitted for permit after December 30, 2010
   2003 Code- Buildings submitted for permit after January 4, 2006
   2000 Code- Buildings submitted for permit after July 15, 2002
   1997 Code- Buildings submitted for permit after March 12, 2000
   1994 Code- Buildings submitted for permit after January 26, 1997
   1991 Code- Buildings submitted for permit after July 12, 1993
   1988 Code- Buildings submitted for permit after March 25, 1990
   1985 Code- Buildings submitted for permit after May 5, 1986
   1970 Code- Buildings submitted for permit between June 1972 and May 5, 1986
   1963 Code- Buildings submitted for permit between March 1963 and June 1972
   U K Code- Buildings submitted for permit before March 1963 and buildings annexed into the City.

2. All certificates issued pursuant to a building permit application will have the same classification and type of construction as shown on the application and will be coded as above.

| CW No: | 2012-B12 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|
| **Certificates of Occupancy Continued** | | | | | |

3. No certificate of Life Safety Code compliance will be issued unless the building complies with:

   A. The building code that was in effect when the building was constructed.
   B. Section 102 of the Building Code.
   C. Appendix L of the Building Code.

4. All buildings permitted before March 1963 and buildings annexed into the City will be inspected for compliance with Section 102 and the Life Safety Appendix only.

5. Fees for inspections for a certificate of compliance shall be the same as for a certificate of occupancy.

Approved:

Earl N. Greer, Building Official

**City of Houston**
**Building Inspection**

# CODE WORD 2012

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*2009 IECC and ASHRAE 90.1-2007*

| No: | 2012-B13 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | August 13, 2013 | | | | |
| SUBJECT: | Existing Certificate of Occupancy Validity | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 111 | | | | |

Prior to occupancy of a building, or portion thereof, Section 111 of the building code requires a Certificate of Occupancy (CO) to be issued which indicates the building, or portion thereof, has been reviewed and approved for the particular use and occupancy. The certificate applies to the specific location and configuration within a particular type of building, and a maximum occupant load. The CO is valid for the life of that building or portion thereof, subject to the Life Safety Appendix, as long as there are no changes to the space, and it is maintained in good condition with the same use and occupancy.

A Certificate of Occupancy could be invalidated for any of the following conditions:

1. Revocation
2. Occupant load change
3. Use or occupancy change
4. Expired renovation permit is incomplete
5. Unpermitted alterations

While permitting and inspection options may be pursued in some cases to restore an existing Certificate of Occupancy to compliance, a change to the occupancy classification will require a new Certificate of Occupancy. A new CO is also required when the use or character has been changed within the same occupancy classification such as in the following examples:

- office to beauty shop
- school to daycare
- residence to personal care home
- residence to boarding house
- grocery to flea market
- restaurant to dance hall
- warehouse to auto repair
- warehouse to high piled storage

For other changes that may require a new Certificate of Occupancy, the Building Official will determine whether the character or use of an existing occupancy would initiate a new Certificate of Occupancy due to significant code implications.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
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|---|---|---|---|---|---|
| **CW No:** | **2012-B14** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **July 16, 2014, Revised October 21, 2014** | | | | |
| **SUBJECT:** | **Certificates of Occupancy Posting** | | | | |
| **CODE(S):** | **Building Code** | | | | |
| **SECTION(S)** | **111.5** | | | | |

Section 111.5 of the Building Code requires that Certificates of Occupancy be posted in a conspicuous place.

In building complexes under common ownership, where multiple buildings have separate Certificates of Occupancy issued and are subject to damage or removal by unauthorized persons a copy shall be sufficient; provided the original is maintained in a management office located on site, and is readily available to view.

Other than a copy authorized by the Habitability Ordinance, in 10-155 of the City Code, when a copy of the certificate is placed in lieu of the original, the certificate shall contain a statement "This is a copy, see the management office for the original Certificate of Occupancy."

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| CW No: | 2012-B15 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | April 09, 2014 | | | | |
| SUBJECT: | Assessment of Permit Valuations | | | | |
| CODE(S): | Building Code | | | | |
| SECTION(S) | 118 | | | | |

Section 118 of the Building Code identifies the various permits for all types of construction and related costs. Both the building permit and certain mechanical permits are assessed based on valuation.

The Building Code defines valuation as,

"**VALUATION.** The total cost of construction to the end user, excluding the land purchase costs and the overhead attributed to the land purchase. The value of donated goods and services is included."

To ensure equitable permit fee calculation those projects that require both a building permit and a mechanical permit shall be assessed as follows:

**Building Permit:** Total construction valuation.

**Mechanical Permit (HVAC and Refrigeration):** Valuation of the mechanical installation costs of the project.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

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| **CW No:** | **2012-B16** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **June 10, 1987** | | | | |
| **SUBJECT:** | **Permit Tonnage Limitations** | | | | |
| **CODE(S):** | **Mechanical & Building** | | | | |
| **SECTION(S)** | **121.5 (UMC) & 118.3 (IBC)** | | | | |

Limitations regarding tonnage, assigned by code, for State Class "B" contractor licenses will be considered to limit the licensee to repair and install equipment developing a total of not more than 25 tons, or using compressors driven by not more than 30 horsepower.

This shall not limit a Class "B" contractor from installation or repair of air conditioning systems serving a building which contains more than 25 tons of mechanical refrigeration provided that no single system is greater than 25 tons, and that no single permit is greater than 25 tons. Subsequently, multiple permits may be purchased for a single address or building to form an aggregate of the total tonnage in multiples of 25 tons or less.

Approved:

Earl N. Greer, Building Official

**City of Houston**
**Building Inspection**

# CODE WORD 2012

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| **CW No:** | **2012-B17** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **March 31, 2009** | | | | |
| **SUBJECT:** | **Residential Occupancies Explained** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **310** | | | | |

The matrix below has been constructed to help with the understanding of the R occupancies as addressed by the 2012 Building Code.

| Use | Number of Occupants | Classification | Notes |
|---|---|---|---|
| Single family home | 1 family[1] | R-3 | Use IRC code |
| Boarding house (transient)[2] | Any | R-1 | |
| Boarding house (not transient) | Any | R-2 | |
| Congregate living facility[3] | 16 or less | R-3 | Use IBC provisions for the R-3 occupancies (limited in height, etc) |
| Congregate living facility[3] | More than 16 | R-2 | Sprinklers required |
| Residential care/assisted living facilities | 6 to 16, excluding staff | R-4 | Sprinklers required |

1. Family: An individual or two or more persons related by blood or marriage or a group of not more than 10 persons (excluding servants) who need not be related by blood or marriage living together in a dwelling unit.
2. Transient: Occupancy of a dwelling unit or sleeping unit for not more than 30 days.
3. Congregate living facility: A building or portion thereof that contains facilities for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate living facility may be a shelter, convent, monastery, dormitory, fraternity, or sorority house, but does not include jails, hospitals, nursing homes, hotels or boarding houses.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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| CW No: | 2012-B18 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | March 7, 1988 | | | | |
| SUBJECT: | Emergency Pneumatic Systems | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 403 | | | | |

a. The air compressor located within the building serving life safety functions shall be located in a 2 hour rated enclosure. The air compressor, dryer and associated electrical equipment shall be served from the emergency generator.

b. The air compressor may be located within the same rated enclosure that houses the emergency generator.

c. The main pneumatic trunkline for life safety systems shall be protected by a 2 hour rated enclosure or shall be a material that will withstand 1800° F for 2 hours (i.e., stainless steel).

d. Branch pneumatic lines run in air ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed rating of not more than 50.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

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|---|---|---|---|---|---|
| **No:** | **2012-B19** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 9, 2014** | | | | |
| **SUBJECT:** | **Sprinkler System In Four Story Residences** | | | | |
| **CODE(S):** | **Building Code** | | | | |
| **SECTION(S)** | **504.2** | | | | |

This interpretation is to clarify when the use of a NFPA 13R sprinkler system is required in single family residential structures. If the design exceeds three stories in Type V construction, a sprinkler system must be provided to allow an additional story. In Type V construction a fourth story is only allowed when the building is fully sprinklered as required by Section 504.2 of the International Building Code.

Typically, the NFPA 13D sprinkler standard is allowed for providing sprinkler protection for a single family residence. The scope of the Houston Residential Code is limited to 3 stories in height.

When the building exceeds 3 stories, the residence is regulated by the provisions of the Houston Building Code. The Houston Building Code limits a single family home, classified as an R-3 structure to 3 stories in height for Type V construction unless the sprinkler tradeoff is used to increase the height/stories. Section 504.2 of the Building Code only allows for the tradeoff when utilizing the NFPA 13R system.

This interpretation is to formalize an interpretation made effective for plans submitted on or after February 27, 2014.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| **CW No:** | **2012-B20** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **May 19, 1997** | | | | |
| **SUBJECT:** | **School Vocational Shops** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **Table 508.4** | | | | |

Classrooms located within the vocational shop area and used by the shop students will be considered as part of the shop area and will not require a separation. The code does require a one-hour separation between shop areas and other portions of the building and also between each vocational shop area.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

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| **CW No:** | **2012-B21** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **December 11, 2014** | | | | |
| **SUBJECT:** | **Glass Block in Exterior Fire-Rated Walls** | | | | |
| **CODE(S):** | **Residential & Building** | | | | |
| **SECTION(S)** | **R302.1 (IRC) and Table 705.8 (IBC)** | | | | |

The code prohibits openings in exterior walls located within the minimum fire separation distance to the property line. In Group R-3 single family residences where openings are prohibited, fire-resistance rated masonry unit glass block may be used as part of the fire-resistance rated wall subject to the following criteria:

- The fire-resistance rating is based on NFPA 357 or UL 9 testing criteria with a hose stream test.
- The fire-resistance rated glass block portion of the wall is non-load bearing.
- The fire-resistance rated glass block is installed as a fixed partition that is not openable or moveable.
- Projections using glass block are not allowed.
- The maximum size area for the fire-resistance rated glass block is 120 square feet with the aggregate width at any floor level not to exceed 25 percent of the length of the wall.

Any construction, walls, or projections, 3 feet or less from the property line shall have a maintenance agreement with the adjacent property owner.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| **CW No:** | **2012-B22** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **December 23, 1986** | | | | |
| **SUBJECT:** | **Corridor Doors** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **716.5.3** | | | | |

Door assemblies in corridors and smoke barriers are required to be tested and labeled.

Doors without the labels shall be considered as having a 20 minute fire rating if they are of 1 3/4- inch thick solid bonded wood construction.

Door frames milled from 1½ - inch wood or metal door frames will be considered as meeting the 20 minute requirement without being labeled.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

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| **CW No:** | **2012-B23** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 9, 2014** | | | | |
| **SUBJECT:** | **Smoke Dampers in Corridors** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **717.5** | | | | |

The building code requires smoke dampers to be installed in corridors to prevent the migration of smoke into the path of egress. The smoke dampers required by Section 717.5.4.1 for penetrations of the rated exit corridor are intended to protect the corridor path of egress from smoke migration from adjacent spaces. The dampers are required in fire-rated partitions that serve as corridor walls and smoke barrier walls in accordance with Section 716.5.3. The exterior wall to the outdoors is not an adjacent space within the building and therefore the corridor would not need to be protected from outdoor air.

Based on the code intent, as described in the code commentary and confirmed by ICC, the smoke damper is required when there are air transfer openings or ducts communicating with spaces inside the building. Therefore, when a corridor is served only by outside air and without air transfer openings to adjacent spaces within the building, a smoke damper will not be required for that location.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| **CW No:** | **2012-B24** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 28, 2000** | | | | |
| **SUBJECT:** | **Hazardous Materials Storage Canopies** | | | | |
| **CODE(S):** | **Building & Fire** | | | | |
| **SECTION(S)** | **903.2.5 (IBC) and 5004.13 (IFC)** | | | | |

An automatic fire-extinguishing system will not be required for an open canopy that meets the requirements of Section 5004.13 of the Fire Code and is used for sheltering outdoor hazardous material unless the sprinkler system is required by the Fire Code for outdoor storage. The canopy will be classified in the appropriate H occupancy classification with the notation on the permit "Canopy for Hazard Material Storage." All such structures shall be routed to the Fire Department for approval.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| CW No: | 2012-B25 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | November 28, 1995 | | | | |
| SUBJECT: | Electronic Locking Devices | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 1008 | | | | |

## SPECIFIC APPROVAL

When approved by the Building Official, electronic locking devices may be used to meet specialized security needs such as, but not limited to, Alzheimer units, infant protection devices, money handling rooms for security purposes, night operation of convenience stores or police stations, etc. This specific approval will require the door to be monitored by an on-site guard, staff or employee trained in the method of releasing the locking device at times when the building or space is occupied.

A separate permit for specific approval shall be required for each locking device and may be revoked at any time by the Building Official for due cause.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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| **CW No:** | **2012-B26** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **October 19, 1995** | | | | |
| **SUBJECT:** | **Main Exit Doors** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **1008.1.9.3** | | | | |

This is to clarify that a building or space can have more than one main exit as allowed in this section. Any door or pair of doors that are used by the general public as an entrance and exit to and from the business will be considered as a main exit. Any door provided for exit purposes only will not be considered as a main exit and will not be allowed to use these exceptions.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
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| CW No: | 2012-B27 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | May 19, 1995 | | | | |
| SUBJECT: | Double Doors Signage | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 1008.1.9.3 and 1008.1.9.4 | | | | |

Where a pair of doors serves as an exit door, the use of manually operated bolts (edge mounted or surface mounted) shall be allowed on the inactive leaf when this leaf is not part of the required egress width. The active leaf shall provide a permanently affixed sign stating, "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| **CW No:** | **2012-B28** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **January 7, 1988** | | | | |
| **SUBJECT:** | **Corridor Construction** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **1018.1** | | | | |

When a common corridor serves mixed occupancies the most restrictive occupancy shall determine the corridor requirements.

Interpretation: When minor uses do not occupy more than ten percent (10%) of the area served the major use shall determine the corridor requirements.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| **CW No:** | **2012-B29** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **August 13, 1991** | | | | |
| **SUBJECT:** | **Restroom Openings Into Corridors** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **1018.6** | | | | |

A separation will not be required between a restroom and a corridor provided the ceiling and walls of the restroom are constructed as required for the corridor.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

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| CW No: | 2012- B30 | Page: | 1 | of | 1 |
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| PUBLICATION: | September 20, 2012 | | | | |
| SUBJECT: | Cellular Tower Risk Category and Basic Wind Speed | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 1604.5 and 1609.3 | | | | |

This interpretation is in response to a request to address the appropriate risk category assignment for certain communication cellular towers for the purpose of the required minimum basic wind speed design based on the Houston Adopted IBC (2012).

Although all tower structures may initially appear to be included within the risk category 4 designation, this designation "Risk Category 4" is intended for essential facilities required for emergency response or disaster recovery including but not limited to police stations, fire stations, hospitals, 311 emergency centers, storm shelters, and their required support structures. A tower structure adjacent to a police station or fire station that supplies communication capabilities to the police or fire station would be considered the same risk category as the building it serves "Risk Category 4".

However, although cellular phone service does provide messages from the regional emergency broadcast system as well as other emergency services to their customers such as 911, the typical cellular communications tower is not considered an essential facility for carrying out emergency response. As a result it is interpreted that where a cellular tower does not provide service to a structure designed as an essential facility and is not considered essential to emergency responders to complete their task during an emergency event, the cellular tower shall be designated a "Risk Category 2".

Plans shall include appropriate documentation to clearly indicate that the tower structure will not provide service to structures designated as "Risk Category 4".

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

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| **CW No:** | **2012-B31** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **Revision December 10, 2013** | | | | |
| **SUBJECT:** | **Block and Base Foundations** | | | | |
| **CODE(S):** | **Residential & Building** | | | | |
| **SECTION(S)** | **R403.1, R403.2 (IRC) and 1809.9(IBC)** | | | | |

This policy is an acceptable alternate as per Section 104.11 of the Building Code for existing buildings when performing maintenance or repair of existing block and base foundations. This alternative shall apply to conventional light-frame construction designed with girders and supported on blocks and bases in such a manner that the building can be easily leveled any time after the full load has been applied. For repair of existing block and base foundations the following apply:

1. All loose material and vegetation must be removed to ensure solid bearing beneath bases.
2. End joints of girders shall occur over supports.
3. Minimum thickness of concrete bases shall be 4 inches.
4. The minimum width of the structure shall not be less than the overall height.
5. Girders shall not be placed further than the depth of the joist from the exterior wall.

For new and relocated buildings, as well as additions, block and base foundations shall be designed by a Texas registered Professional Engineer to comply with the applicable code sections, or in accordance with Code Enforcement Drawing #13-05-R

This interpretation is applicable to all building plans submitted on or after March 1, 2014.

Approved:

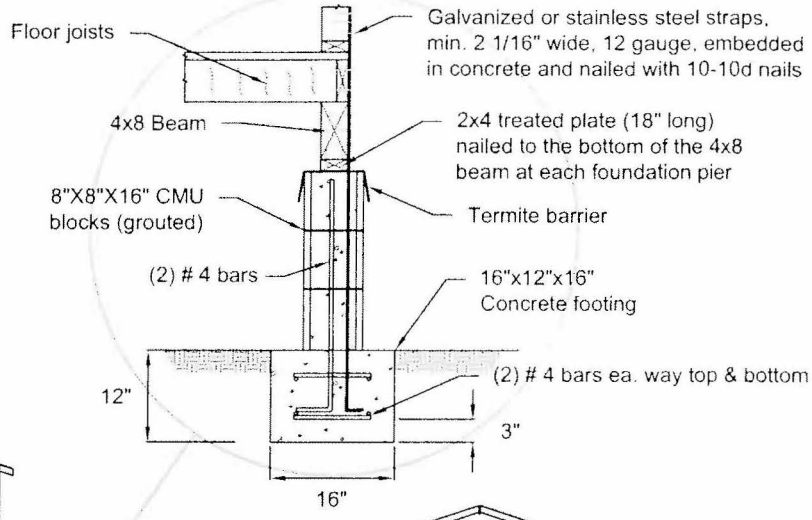
Earl N. Greer, Building Official

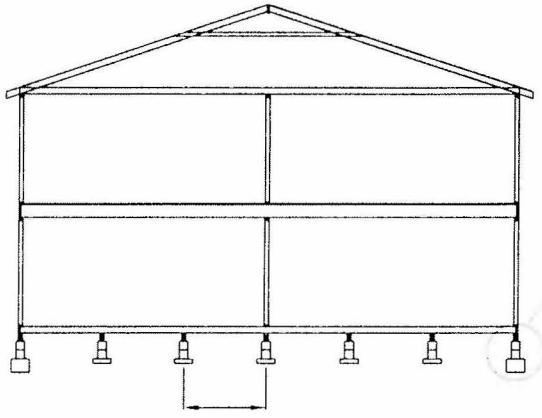
Notes:

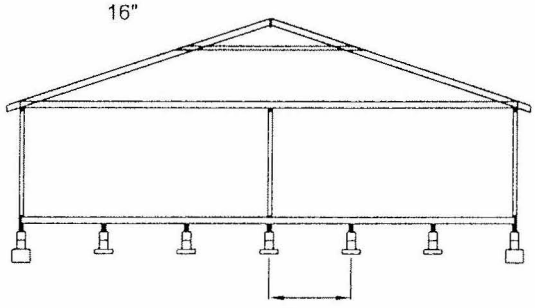
1. Provide hurricane strapping as per Appendix L of the City of Houston Residential Code.

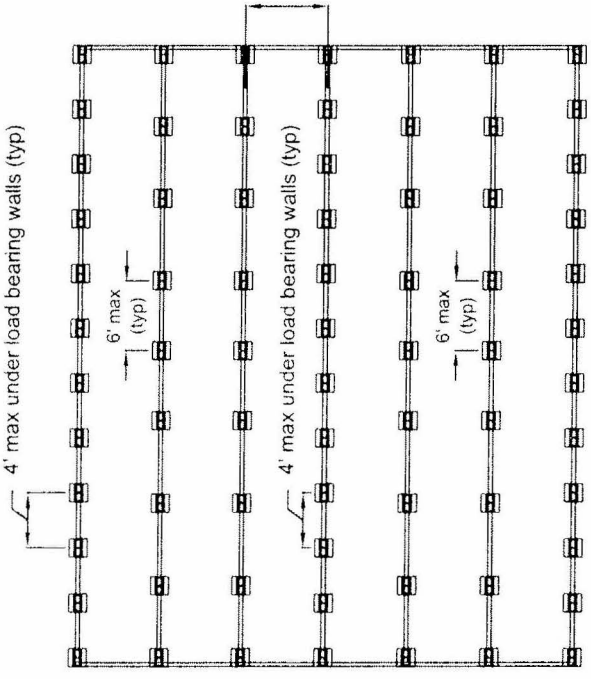
2. The under-floor grade shall be cleaned of all vegetation and organic material (section R408.5).

3. All exterior footings shall be placed at least 12 inches below the undisturbed ground surface (section R 403.1.4).

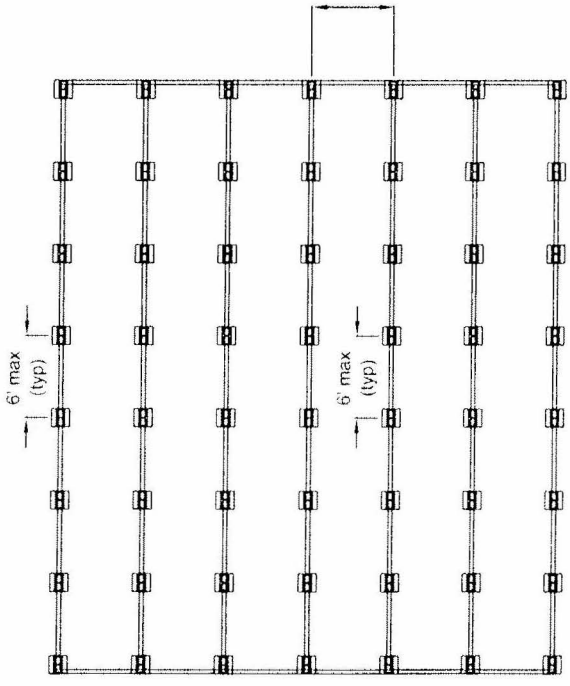



TWO-STORY RESIDENCE




ONE STORY RESIDENCE

STANDARD DRAWING

**CITY OF HOUSTON**
DEPARTMENT OF PUBLIC WORKS & ENGINEERING

# BLOCK & BASE FOUNDATIONS DETAILS

1002 WASHINGTON AVE., HOUSTON, TEXAS 77002

APPROVED BY
BUILDING OFFICIAL
APPROVED BY
CITY ENGINEER

DATE: 10-02-2013 | DWG NO. 13-05-R | 1 OF 1

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| No: | 2012-B32 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| **PUBLICATION:** | **July 11, 2013** | | | | |
| **SUBJECT:** | **Design Values for visually graded Southern Pine dimensional lumber** | | | | |
| **CODE(S):** | **Residential and Building** | | | | |
| **SECTION(S)** | **Various** | | | | |

Effective June 1, 2013, the Southern Forest Products Association modified and reduced the recognized design allowances of visually graded Southern Yellow Pine lumber.

The 2012 Building and Residential Codes were published and adopted prior to these reductions being known or published and currently contain less stringent allowances.

In response to this industry change, the City of Houston will utilize the new recognized span tables published by the Southern Pine Inspection Bureau as of June 1.

For ease of use, the span tables are included herein for reference and replace the following tables:

**IRC**

| | |
|---|---|
| Floor Joists | R502.3.1 (1) - R502.3.1(2) |
| Cantilever Spans | R502.3.3 (1) - R502.3.3(2) |
| Girder and Header Spans | R502.5 (1) - R502.5(2) |
| Ceiling Joists | R802.4 (1) - R802.4(2) |
| Rafter Spans | R802.5.1 (1) - R802.5.1(8) |

**IBC**

| | |
|---|---|
| Floor Joists | 2308.8(1) – 2308.8(2) |
| Header and Girder | 2308.9.5 and 2308.9.6 |
| Ceiling Joists | 2308.10.2(1) - 2308.10.2(2) |
| Rafter Spans | 2308.10.3(1) - 2308.10.3(6) |

This change will not affect currently approved projects or plans that are in the plan review process nor other lumber species.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B33** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **November 1, 2011** | | | | |
| **SUBJECT:** | **Restrooms in Carry-Out Food Establishments.** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **2902.3** | | | | |

In carry-out food establishments with waiting areas not greater than 225 sq. ft., where food will not be consumed by the public on premises, toilet facilities are not required for customers.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B34** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **September 20, 2012** | | | | |
| **SUBJECT:** | **Elevator Signage** | | | | |
| **CODE(S):** | **Building Code and Fire Code** | | | | |
| **SECTION(S)** | **3002.3 (IBC) and 607.2 (IFC)** | | | | |

The City of Houston Fire Code Section 607.2 requires an approved pictorial sign to be posted adjacent to each elevator call station.

The approved pictorial sign shall also contain a correctly oriented diagram showing the location and identification of the stairs on the floor in relationship to the elevator. The top of the sign shall not exceed 6 feet (1.8 m) above the floor level.

Approved:

Earl N. Greer, Building Official

| CW No: | 2012-B35 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| PUBLICATION: | December 3, 1998 | | | | |
| SUBJECT: | R-1 or R-2 Conversions | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 3408 | | | | |

Section 3408 of the code grants wide authority to the building official to use judgment in determining the level of safety and which code requirements will apply when a change of occupancy is proposed to an existing building. Reference is made in Chapter 34 of the Building Code to Appendix M for determining the level of hazard. In order to provide consistency in the requirements, the attached guidelines have been developed to use when converting an existing building to an apartment or hotel. The minimum Appendix L life-safety requirements shall apply. See the table on page 2.

| CW No: | 2012-B35 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|
| **R-1 and R-2 conversions continued** | | | | | |

## CHANGE OF OCCUPANCY - GROUP B TO GROUP R-1 OR R-2

| | |
|---|---|
| 1. Sprinkler System | As required per current code. |
| 2. Fire Alarm System | As required per current code. |
| 3. Natural Light | As required per current code. |
| 4. Stair Enclosures | Rated enclosure is required but one stair may discharge through a street floor lobby. |
| 5. Stair Rise and Run | Existing stairs do not have to be changed if they comply with all requirements of Appendix L. New stairs must comply. |
| 6. Stair Pressurization | As required per current code. However, if it can be determined that there are practical difficulties with the existing construction, an alternate will be considered by the Building Official. |
| 7. Exterior Walls | May keep existing construction and openings per Appendix M. |
| 8. Fire Command Station | As required per current code for high-rise buildings. |
| 9. Smoke Control System | Not required unless required when constructed. |
| 10. Corridors | As required per current code. |
| 11. Type of Construction | As required per current code. |
| 12. Emergency Generator for High-Rise | As required per current code. |
| 13. Vertical Openings | As required per current code. |
| 14. Ventilation / Fresh Air | As required per current code. |
| 15. Bathrooms | As required per current code. |
| 16. Structural | As required per current code. |

Approved:

Earl N. Greer, Building Official

# City of Houston
## Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B36** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **March 13, 1989** | | | | |
| **SUBJECT:** | **Extent of Exit Enclosure (existing)** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L102.1** | | | | |

As an alternate method of providing two separate distinct exits, exit enclosures may discharge into and through a street-floor lobby, provided the required exit width is free and unobstructed and the street/ground floor is protected with an automatic sprinkler system.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B37** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **January 6, 1998** | | | | |
| **SUBJECT:** | **Requirement of at Least One Handrail for Every Stairway on Existing Buildings** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L102.2** | | | | |

The following interpretation is to be applied to all stairways of buildings inspected for Appendix L of the building code.

Section L102.2 of the Houston Amendments to 2012 building code states that "Every stairway shall have at least one handrail". Handrails shall be provided for each stairway with four or more risers.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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| **CW No:** | **2012-B38** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **May 23, 1990** | | | | |
| **SUBJECT:** | **Glass in Corridor Walls** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L102.3** | | | | |

As an alternate to the wired glass allowed in corridor walls by Section L102.3 of the Building Code, regular glass may be used subject to the following:

1. Both sides of the glass shall be protected by a sprinkler system equipped with listed quick-response sprinklers. The sprinklers shall be spaced 6 feet or less along both sides of the glass, not more than 1 foot from the glass and located so that the entire surface of the glass is wet upon operation.

2. The glass shall meet the safety and design requirements of Chapter 24.

3. Obstructions such as curtain rods, curtains, drapes or similar materials shall not be installed between the sprinkler and the glass.

Glass doors will be permitted provided they are included in the allowable glass area.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B39** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **July 30, 1990** | | | | |
| **SUBJECT:** | **Wired Glass in Existing Corridor Doors** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L102.3** | | | | |

Existing glass in corridor doors may be replaced with polished wired glass, without limitation to the opening size, when complying with this section, and not exceeding the existing opening size.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B40** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **November 8, 2001** | | | | |
| **SUBJECT:** | **Corridors in Existing Schools** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L102.3** | | | | |

As an alternate to the requirement for rated corridors in existing schools, an automatic fire alarm system may be provided. The system shall consist of the following:

1. Smoke detectors in the exit corridors, common areas, offices and classrooms.

2. Manual pull-boxes by all exits from each floor of the building.

3. Automatic detectors (heat or smoke) in mechanical rooms, storage rooms and similar areas.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B41** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **July 23, 1987** | | | | |
| **SUBJECT:** | **Existing Exit Signs** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L102.5** | | | | |

Section L102.5 requires that exit signs be provided for existing buildings as required by Section 1011 of the current code. In some cases this will require exit signs that were not required under the previous code. Section L102.5 also makes exception to signs that are existing.

Existing signs will be considered as meeting the requirement of this section provided:

1. They have been maintained and are in compliance with the code under which the building was constructed.

2. They clearly indicate the direction of egress.

3. They are internally or externally illuminated or shall be of an approved self-luminous type.

The letters are at least 5 inches high and readily distinguishable.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-B42** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **June 30, 1987** | | | | |
| **SUBJECT:** | **Standpipes** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L105.1** | | | | |

Section L105.1 specifies that buildings over four (4) stories shall be provided with an approved Class I or Class III standpipe system. Section 905 only prescribes a size of outlet for these systems and not the installation standards.

Existing wet standpipes with two and one-half inch (2 ½") outlets that comply with the code that was in effect when the building was constructed and that have been properly maintained shall be considered as meeting the requirements of the section.

The other installation standards of Chapter 9 apply to new or added standpipes.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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| **CW No:** | **2012-B43** | **Page:** | **1** | **Of** | **1** |
| **PUBLICATION:** | **October 24, 1990** | | | | |
| **SUBJECT:** | **Fire Alarm Systems** | | | | |
| **CODE(S):** | **Building** | | | | |
| **SECTION(S)** | **L108** | | | | |

The minimum requirement of this section is to provide a local fire alarm system for existing buildings that are either annexed into the City or were constructed within the City prior to code requirements for alarm systems.

The reference to Section 403 shall be considered only for the purpose of Section 403.4 requiring the evacuation alarm to sound on the floor of incidence, the floor above, the floor below and be heard clearly by all occupants of these floors.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012- B44 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | September 20, 2012 | | | | |
| SUBJECT: | Risk Category and "Wind-Borne Debris Region" | | | | |
| CODE(S): | Houston Adopted Building Code (2012) | | | | |
| SECTION(S) | 202.1 and 1609.3 | | | | |

This is a code interpretation addressing the code provisions for protection of glazing as it relates to wind-born debris impact protection for Risk Category 3 structures constructed within the jurisdiction of the City of Houston under the provisions of the Houston Adopted IBC (2012).

This code interpretation requests clarification regarding the applicability of the code provisions associated with wind-born debris impact protection for windows and other building elements utilizing glazing for Risk Category III structures; specifically, schools constructed under the provisions of the Houston Adopted IBC (2012). In an attempt to simplify the code provisions addressing the minimum basic wind speed, Section 1609.3 of the IBC (2012) includes the following City of Houston amendment:

> ***1609.3 Basic wind speed.*** *The ultimate design wind speed, $V_{ult}$, in mph, for the determination of the wind loads shall be determined by Figures 1609A, 1609B and 1609C. The ultimate design wind speed, $V_{ult}$ for use in the design of Risk Category II buildings and structures shall be 139 mph. The ultimate design wind speed, $V_{ult}$, for use in the design of Risk Category III and IV buildings and structures shall be 150 mph. The ultimate design wind speed, $V_{ult}$, for use in the design of Risk Category I buildings and structures shall be 130 mph.*

Although the first sentence continues to identify Figures 1609A, 1609B and 1609C; the following three sentences strike the text that references to the three figures and replace it with a specific minimum basic wind speed applicable to each of the different Risk Categories specified in this section. Replacement of the referenced Figures (1609A, 1609B and 1609C) is only intended to stop the user from being forwarded to the three figures (maps) for the purpose of establishing the minimum basic wind speed applicable to the structure. This Houston amendment does not actually eliminate the three figures (Maps) from the Houston Adopted IBC (2012).

An unintended result of this Houston modification to simplify the minimum basic wind speed design for structures results in an assumption that these prescriptive wind speeds also regulate the glazing provisions for wind-borne debris regions as it has been assumed by some that Figures 1609A, 1609B and 1609C were deleted. This is not the case.

Each of these three figures (1609A, 1609B and 1609C) continues to be part of the Houston Adopted IBC (2012). As a result it is intended that the specific provisions of the definition of "***WIND-BORNE DEBRIS REGION***" located in Section 202.1 of the Houston Adopted IBC (2012) continue to apply to applicable windows and glazing located within the exterior walls of all new structures constructed under the Houston Adopted IBC (2012).

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

***WIND-BORNE DEBRIS REGION.*** *Areas within hurricane-prone regions located:*

1. *Within 1 mile (1.61 km) of the coastal mean high water line where the ultimate design wind speed, $V_{ult}$, is 130 mph (58 m/s) or greater; or*
2. *In areas where the ultimate design wind speed is 140 mph (63.6 m/s) or greater; or Hawaii.*

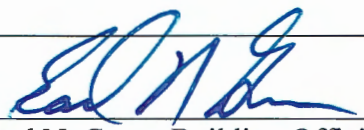
*For Risk Category II buildings and structures and Risk Category III buildings and structures, except health care facilities, the windborne debris region shall be based on Figure 1609A. For Risk Category IV buildings and structures and Risk Category III health care facilities, the windborne debris region shall be based on Figure 1609B.*

***IBC (2012) Commentary:*** *However, this definition of the wind-borne debris regions provides somewhat of an exception by allowing Figure 1609A to be used for establishing the wind-borne debris regions that are applicable to Risk Category III structures, other than health care facilities. This results in wind-borne debris regions applicable to Risk Category III (other than health care facilities) that are consistent with the areas that were defined in the prior editions of the code. At the same time, it should be noted that the wind-borne debris region established by Figure 1609B for Risk Category IV, as well as health care facilities that are Risk Category III, is an expansion of the wind-borne debris region defined in prior editions of the code.*

As indicated in the definition and the excerpt from the IBC (2012) Commentary shown above; the windborne debris region shall be based on *Figure 1609A – Ultimate Design Wind Speeds, $V_{ult}$, For Risk Category II buildings and Other Structures* Risk even though the structures may actually be classified as a Risk Category II and III structure, except for health care facilities.

Based on the code provisions and intent of the definition "***WIND-BORNE DEBRIS REGION"*** in Section 202.1 of the Houston Adopted IBC (2012) all glazing located in the exterior walls of a Risk Category III building would be based on the Houston specified minimum basic wind speed permitted for a Risk Category II structure. (IE: 139 mph.) This would apply to structures including but not limited to an elementary or secondary school with an occupant load greater than 250. The remaining building design would require compliance with the minimum basic wind speed design designated for a Risk Category III structure. (IE: 150 mph.)

Approved:



Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2013*

| CW No: | 2012- B45 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | January 4, 2017 | | | | |
| SUBJECT: | Interpretation- Minor Structures | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 1704.2 | | | | |

Section 1704.2 (Special Inspections) requires that the owner or the design professional acting as the owner's agent shall employ one or more *approved agency* to perform inspections during construction on the type of work listed under section 1705.

The exception to this section states that special inspections are not required for construction of minor nature.

It is our interpretation that light weight steel/Aluminum shade structures (Canopies, awnings, patio covers, and carports) are considered structures of minor nature, and therefore do not require special inspections and the fabricators of such structures are exempt from being *approved fabricators*. These structures however, are still required to comply with all the relevant provisions of the code, and be designed by a professional engineer, licensed in the state of Texas.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

| CW No: | 2012- B46 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | October 12, 2017 | | | | |
| SUBJECT: | Electronically Locked Egress Door(s) | | | | |
| CODE(S): | Houston Adopted IBC (2012) | | | | |
| SECTION(S) | 104.11 Alternate Method (Specific Approval) | | | | |

**Definitions.** For the purpose of this Code Word, the following definitions apply:

**FAIL-SAFE.** A design condition incorporating a feature for automatically counteracting the effect of an anticipated possible source of failure; also, a design condition eliminating or mitigating a hazardous condition by compensating automatically for a failure or malfunction.

**FAIL SECURE.** Shall mean that the loss of power to the locking system will allow the doors to remain locked.

Except as specifically addressed in other sections of the Houston Construction Code, to qualify for specific approval, all electronically locked egress doors shall meet the following requirements:

1. Electronic locks that are electronically locked from the ingress side and can be mechanically unlocked from the egress side, can be fail secure from the ingress side.

   **Exception:** Stairway enclosure reentry doors required by Section 403 shall be fail-safe.

2. Electronic locks that unlock electronically from the egress side shall be fail-safe and must be unlocked by a listed direct power-interrupting device without time delay. If a motion sensor is used, a secondary in-line manual unlocking device shall be installed. If the lock is controlled by a relay, removal of power from the relay shall also cause the lock to fail-open.

   **Exception:** Egress-control devices meeting the requirement of Section 1008.1.9.7 may be of the time-delay type.

3. Doors in excess of the number required for exits may be electronically controlled, provided there is a manual unlocking device.

4. An exit door from an elevator lobby may be controlled by an electronic lock with an emergency manual unlocking device (direct in-line power interrupting switch) on the lobby side, provided the building has an automatic fire alarm system, including smoke detectors, located in the lobby and corridors or a complete sprinkler system that is interconnected to the fire alarm system.

The manual unlocking device associated with electronically controlled egress doors shall be either a manual fire alarm pull station or a push button [minimum of 1½ inches in size] located 40 inches to 48 inches vertically above the floor and within 5 feet of the secured door. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads: **PUSH/PULL TO RELEASE DOOR IN AN EMERGENCY.** When operated, the manual unlocking device shall result in direct interruption of power to the lock "independent of other electronics" and the doors shall remain unlocked for not less than 30 seconds. Activation of the building fire alarm or fire sprinkler system, where provided, shall automatically unlock the door, and the door shall remain unlocked until the *fire alarm system* has been reset. The door locking system units shall be listed in accordance with UL 294.

Approved:

Robert H. Oakes, Acting Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2017 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

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| **CW No:** | **2012-B47** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **October 30, 2017** | | | | |
| **SUBJECT:** | **Specific Approval for Certain Temporary Modular Building(s)** | | | | |
| **CODE(S):** | **Houston Adopted Building Code (2012)** | | | | |
| **SECTION(S)** | **Sections 104.11 and 3103** | | | | |

This code interpretation establishes the plan review and permit procedure for installation of certain typical temporary modular buildings as allowed by Section 3103 of the Houston Adopted IBC (2012). A proposed temporary modular building (excluding hazardous occupancies and an occupancy producing hazardous materials) may be authorized for permit for a period of less than 180 days without typically required platting and site plan review, and wastewater capacity based on compliance with the following:

- The proposed temporary building is a Texas Industrialized Building (TIB) approved for use within the Houston wind speed zone. **IE:** Modular (TIB) structures designed and manufactured based on the IBC (2012) shall be designed to a minimum 130 mph wind speed as a "Risk Category 1" based on office use. Modular (TIB) structures shall be designed to a minimum 139 mph wind speed as a "Risk Category 2" for Group A (assemblies) with an occupant load of 299 or less; and for Group E (educational), and Groups E and I4 daycare facilities with an occupant load of 250 or less.
- Where the property is located in a flood plain, additional flood permits and provisions may be required.
- Stormwater may not flow across the property line to adjacent properties.
- The temporary structure shall be located on the property in compliance with the applicable provisions of Section 705 and Table 602 of the Houston Adopted IBC (2012) for the construction type and use proposed. A scalable site plan documenting appropriate dimensions to property lines and showing sufficient parking for the building size and use shall be provided.
- Exterior egress stairs and ramps shall comply with all provisions of Houston Adopted IBC (2012) including the specific provisions of Section 1026.5.
- The electrical will be provided by a temporary saw pole installed by a licensed electrical contractor or by connection to a properly permitted standby power generator complying with Section 2701.1 of the Houston Adopted IBC (2012) and the Texas mandated NEC (2017), or by authorized connection to an existing panel of an adjacent building where the panel is adequate to handle the additional electrical load.
- Water shall be provided by connection to an existing water supply or by a potable water holding tank. Sanitary services shall be provided by connection to an existing sanitary service or a holding tank. Where water or sewer holding tanks are provided, a copy of the service contract for water resupply and holding tank cleaning shall be provided with the plans when submitting to Commercial Plan Review for permit.
- Appropriate TIB plans, site plan, utility connection details and Texas engineer sealed plans for egress steps, ramps, guards and handrails as applicable shall be submitted to Commercial Plan Review.
- Permits shall be obtained, inspected, and final for all electrical, plumbing, mechanical and structural work.

**NOTE:** Plan approval is in no way an exemption or modification to any applicable provisions of the Texas Accessibility Standards (TAS). **Once approved, the permit is subject to a less than 180-day limitation. The building must be removed before any other projects at this address receive a permit.**

Approved:

Robert H. Oakes, Acting Building Official

**City of Houston**
**Building Inspection**

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2017 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

| CW No: | 2012- B48 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | May 7, 2020 | | | | |
| SUBJECT: | Plumbing Fixture Count Interpretation | | | | |
| CODE(S): | Houston Building Code (2012) | | | | |
| SECTION(S) | [P] 2902.1 and [P] 2902.3 | | | | |

The purpose of this code word is to clarify the application of two code provisions of Chapter 29 of the Houston Building Code as they relate to the availability and fixture count of public toilet facilities.

> ***[P] 2902.1 Minimum number of fixtures.*** *Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 2902.1. Types of occupancies not shown in Table 2902.1 shall be considered individually by the building official. The number of occupants shall be determined by this code. Occupancy classification shall be determined in accordance with Chapter 3.*
>
> ***[P] 2902.3 Employee and public toilet facilities.*** *Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902.1 for all users. Employees shall be provided with toilet facilities in all occupancies. Employee toilet facilities shall either be separate or combined employee and public toilet facilities.*
>
> > ***Exception:*** *Public toilet facilities shall not be required in open or enclosed parking garages. Toilet facilities shall not be required in parking garages where there are no parking attendants.*

This section specifically indicates that toilet facilities must be available for all public establishments used by persons whom may be engaged in the activities of the establishment. Public establishments include but are not limited to restaurants, nightclubs, theaters, offices, retail shops, stadiums, libraries, churches, and includes educational and daycare facilities. Persons engaged in the activities of the establishment include the usual occupants as well as any persons that may have business at the facility even for brief meetings or assemblies.

As indicated in the published commentary for this section, the total occupant load of the facility shall be used to determine the minimum number of plumbing fixtures required for the public toilet facilities. Private toilet facilities such as those located within individual classrooms or private offices that are not available and provide direct access from the public or common areas shall not count towards the minimum plumbing fixtures required for the public toilet facilities. Additionally, restricted purpose toilet fixtures such as but not limited to reduced size or height plumbing fixtures (such as those provided for children) shall not contribute to the minimum public plumbing fixture count required for the total occupant load served.

Approved: Mark Savasta

Mark Savasta, Building Official MGH

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2020 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

| CW No: | 2012- B49 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | July 6, 2021 | | | | |
| SUBJECT: | Definitions Related to Administrative Processes | | | | |
| CODE(S): | 2012 Houston Building and Residential Codes | | | | |
| SECTION(S) | 104.1 (Interpretation and Policy) | | | | |

Code Word B49 defines terms related to existing building alterations that is used for administrative processes associated with plan review and permitting. The intent is to clarify when a building alteration is minor and when it becomes a substantial alteration. Alterations to <50% of the building area is established as a minor alteration, and alterations to ≥50% of building area establishes a substantial alteration and establishes a plan review as a new building. This is intended to provide definitive numbers for customers and city employees. This will help all to know the expectations associated with the different scopes of work. The requirements established in this Code Word is intended for all structures. These definitions have no impact on how the Flood Department enforces its own 50% substantial alteration rule. In the event a confliction occurs, the most restrictive requirements apply.

***a.*** *Minor remodel or alteration.*
***b.*** *Substantial remodel or alteration*
***c.*** *New building.*
***d.*** *Building demolition*

***Minor remodel or alteration*** means a remodel or alteration of an existing building where the total area of the building or structure altered is less than 50% of the total building area of the existing building as defined by the Houston *Building Code*, prior to any city approved modifications.

***Substantial remodel or alteration*** means a remodel or alteration to an existing building where the total aggregate square footage of the building or structure altered is equal to or greater than 50% of the total building area of the existing building as defined by the Houston *Building Code*, prior to any city approved changes.

***New Building*** means any new or rebuilt building resulting from a building demolition or deconstruction project, or a relocated building from a different address that is used or intended for supporting or sheltering any use or occupancy defined by Chapter 3 of the *Houston Construction Code*.

***Building Demolition*** means the permanent or temporary demolition, removal, or disassembly of any structure that meets either item 1 or 2 below:

**(1)** The exterior walls and roof of a previously permitted existing building that results in the elimination, removal, or disassembly of 50% or more of the total square footage of the building area as defined by the Houston *Building Code,* or

**(2)** The elimination, removal, or disassembly of 50% or more of the total linear feet of the exterior walls of any previously permitted existing building.

Permanent or temporary demolition, removal, or disassembly of either items 1 or 2 above at any time during an alteration constitutes a building demolition and requires plan review as a new structure. Proposed construction on an existing foundation of project types identified in items 1 or 2 above, relocated buildings, and new construction on new foundations will be reviewed as a new structure or building. No vertical building additions shall be approved on existing foundations without a structural analysis of the existing foundation and supporting framing, sealed, signed, and dated by a Texas registered professional engineer indicating compliance with all appropriate provisions of the Houston Construction Code for the occupancy, type of construction and number of stories proposed.

Approved: _____
Mark Savasta, CFM, CBO, MCP, FM
Houston Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **No:** | **2012-R01** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 9, 2014** | | | | |
| **SUBJECT:** | **Rooftop Applications Allowed Under the IRC** | | | | |
| **CODE(S):** | **Residential Code** | | | | |
| **SECTION(S)** | **101.2** | | | | |

The scope of the Houston Residential Code is limited to three stories in height above grade plane. This interpretation is to clarify which rooftop structures are permitted in a three story residence without being considered a fourth story as it applies to the Residential Code.

**Height, story** is defined as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces; and for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling to the top of the roof rafters.

The following minor rooftop applications will not be considered as a fourth story:

- The stairway and enclosure with the minimum size for an interior landing leading directly to the roof.
- Exterior roof landing with minimum overhang for the required landing area.
- A mechanical room used exclusively to house mechanical equipment, with an equipment layout submitted in the plans.
- An open trellis, lattice or similar shade structure.

This interpretation will apply to plans submitted for the first time with an original application date on or after May 15, 2014.

Approved:

Earl N. Greer, Building Official

| CW No: | 2012-R02 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | February 14, 1989 | | | | |
| SUBJECT: | Residential Setback | | | | |
| CODE(S): | Residential & Building | | | | |
| SECTION(S) | R102 (IRC) and 102 (IBC) | | | | |

As established by Planning and Development, the location of residences relative to the frontal setback line will be considered in compliance when the outside face of the front wall is behind the setback line. Eaves and gutter overhangs, bay windows, and other limited architectural protrusions into the setback area are acceptable.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection
CODE WORD 2012
INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-R03 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| PUBLICATION: | April 21, 1995 | | | | |
| SUBJECT: | Utility Inspection Procedure | | | | |
| CODE(S): | Mechanical & Residential | | | | |
| SECTION(S) | 115 (UMC) and R109 (IRC) | | | | |

The following procedure applies only to dwellings of occupancy classification R-3.

A mechanical contractor may obtain a "utility inspection" up to 10 days prior to installing a condensing unit and/or kitchen ventilator provided the following conditions are met:

1. A temporary inspection fee has been paid in accordance with Section 118.3.2 of the Building Code. Such fee shall be paid by obtaining a separate HVAC permit in addition to the regular installation permit. The utility permit must be specified at the time of application as an "AY" permit type.

2. All other components of the HVAC system are complete and installed in accordance with code requirements.

3. Kitchen Ventilation:

   (i) Ductwork serving future ventilation equipment, whether such ductwork is installed underground, within kitchen cabinetwork or elsewhere, must be installed prior to the utility inspection, be in accordance with code and prepared to accept the proposed ventilation equipment.

   (ii) Electrical wiring serving future kitchen ventilation equipment shall be installed prior to the utility inspection, be in accordance with code and prepared to accept the proposed ventilation equipment.

| CW No: | 2012-R03 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|
| **Utility Inspection Procedure continued** | | | | | |

4. Air-Conditioning Condensing Unit:

   (i) Refrigeration piping, pipe insulation and control wiring serving future condensing unit(s) shall be installed to the point of connection to the proposed condensing unit, be in accordance with the code and prepared to accept the condensing unit(s).

   (ii) Electrical wiring serving a future condensing unit(s) shall be installed prior to the utility inspection, be in accordance with code and prepared to accept the proposed condensing unit(s).

5. Final Inspection:

   (i) Upon installation of the ventilation or condensing unit, the mechanical contractor (permittee) shall notify the Mechanical Section in a manner established and consistent with the scheduling of any other inspection and shall request a final utility inspection. The mechanical contractor shall make all necessary preparations with builders, homeowners, etc., to facilitate the inspector's access to the property at the time of inspection.

   (ii) Such utility inspection shall be secured within ten (10) working days of the date of installation of either the proposed ventilation equipment or proposed condensing unit.

6. Non Conformance Sanctions:

   (i) Mechanical contractors (permittee), upon failure to secure final inspection as indicated in item 5 above, will be subject to sanctions including but not limited to the following:

      a. The contractor's ability to obtain permits will be suspended until compliance is secured.

      b. A Municipal Court citation may be issued pursuant to Section 110.2 of the Mechanical Code.

      c. Additional use of the Utility Inspection procedure will be suspended.

Approved:

Earl N. Greer, Building Official

**City of Houston**
**Building Inspection**

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| No: | 2012-R04 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | April 16, 2014 | | | | |
| SUBJECT: | Residential Fire-Ratings and Location | | | | |
| CODE(S): | Residential | | | | |
| SECTION(S) | R302.1 | | | | |

The residential code requires fire rating for construction and projections located within the minimum fire separation distance to the property line. This is to clarify the extent of rating for construction and projections of various types.

- Within 3 feet of the property line openings are not allowed.
- At 2 feet or less from the property line projections are not allowed.
- Stairs are allowed within 3 feet of the property line provided the side of the stair, parallel and closest to the property line is protected up to, and including, any required handrails or guardrails, whichever is higher, with a one hour rating.
- Minor shade structures, not exceeding 200 square feet that do not have a solid roof, and are not part of the egress path, are allowed with one hour rating of the columns and beams.
- Noncombustible stairs that were previously approved for permitting may utilize bullet point three or have the one hour rating protected with properly applied intumescent coating.

Any construction, walls, or projections, 3 feet or less from the property line shall have a maintenance agreement with the adjacent property owner.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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| **No:** | **2012-R05** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **October 7, 2013** | | | | |
| **SUBJECT:** | **Continuity of Fire-Resistance-Rated Wall for Houses on Block & Base Foundations.** | | | | |
| **CODE(S):** | **Residential** | | | | |
| **SECTION(S)** | **R302.1, R302.2.1 and Tables R302.1(1) and R302.1(2)** | | | | |

For clarification of the intent of the code, wall continuity must be maintained below the wall and through the block and base foundation wherever a fire-resistance-rating is required for the wall of a single family residence on block & base foundation is required to have a fire-resistance rating for the exterior wall based on the fire separation distance. The fire-resistance-rated wall or assembly "shall be continuous from the foundation to the underside of the roof sheathing".

Section R302.1 requires fire resistance rating for the full height of the exterior walls. Only foundation vents installed in compliance with the International Residential Code (IRC) are permitted as per exception No.5 of Section R302.1.

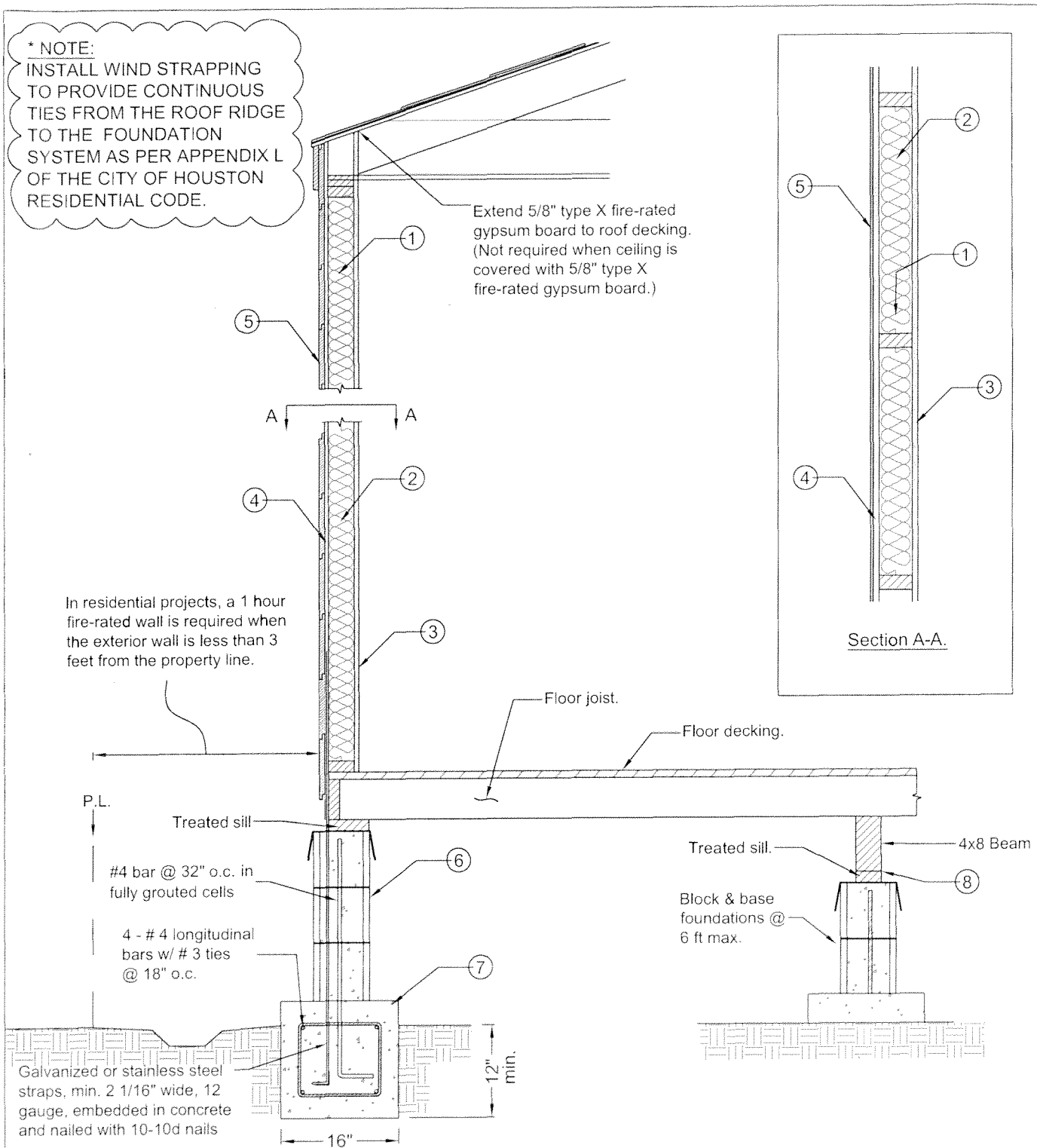
IRC Section R302.2.1 also requires continuity of the fire-resistance-rated wall separating townhouses.

For additional information reference is made to Building Code Enforcement standard drawings numbered 12-05-R and 12-06-R.

Approved:

Earl N. Greer, Building Official

* NOTE:
INSTALL WIND STRAPPING TO PROVIDE CONTINUOUS TIES FROM THE ROOF RIDGE TO THE FOUNDATION SYSTEM AS PER APPENDIX L OF THE CITY OF HOUSTON RESIDENTIAL CODE.




1 Wood Studs: Nominal 2"x4" solid sawn wood studs, 24" on center max, with two top plates and a single bottom plate.
2 Insulation: R13 fiber glass batt insulation.
3 Gypsum Wallboard: 5/8" Type X gypsum wallboard 48" wide, oriented vertically and fastened with 1-3/4" long cup-head gypsum nails, spaced 7" on center at board edges and in field areas, or 1-1/2" Type S drywall screws, spaced 8" on center at board edges and in field areas of boards. The joints and nail heads require treatment consisting of joint compound followed by joint tape and a second layer of joint compound.
4 Gypsum Sheathing: 1/2" Type X or 5/8" Type X gypsum sheathing fastened with 1-3/4" long roofing nails spaced 7" on center in the field and 4" on center along the perimeter. Sheathing edge joints shall be staggered from those on opposite sides of the wall.
5 Fiber-Cement Exterior Siding: 5/16" thick Fiber-Cement lap siding, applied horizontally with a 1-1/4" head-lap and fastened with a single 6d corrosion resistant common nail driven through the lapped planks at each stud location.
6 Masonry Wall: Masonry block wall shall be continuous as part of the fire wall and it shall comply with the provisions of chapter 21 of the IBC.
7 Concrete's compressive strength = 2500 psi @ 28 days.
8 Wood joists when closer than 18" or wood girders when closer than 12" to the exposed ground shall be treated as per section R319 of the City of Houston Residential Code

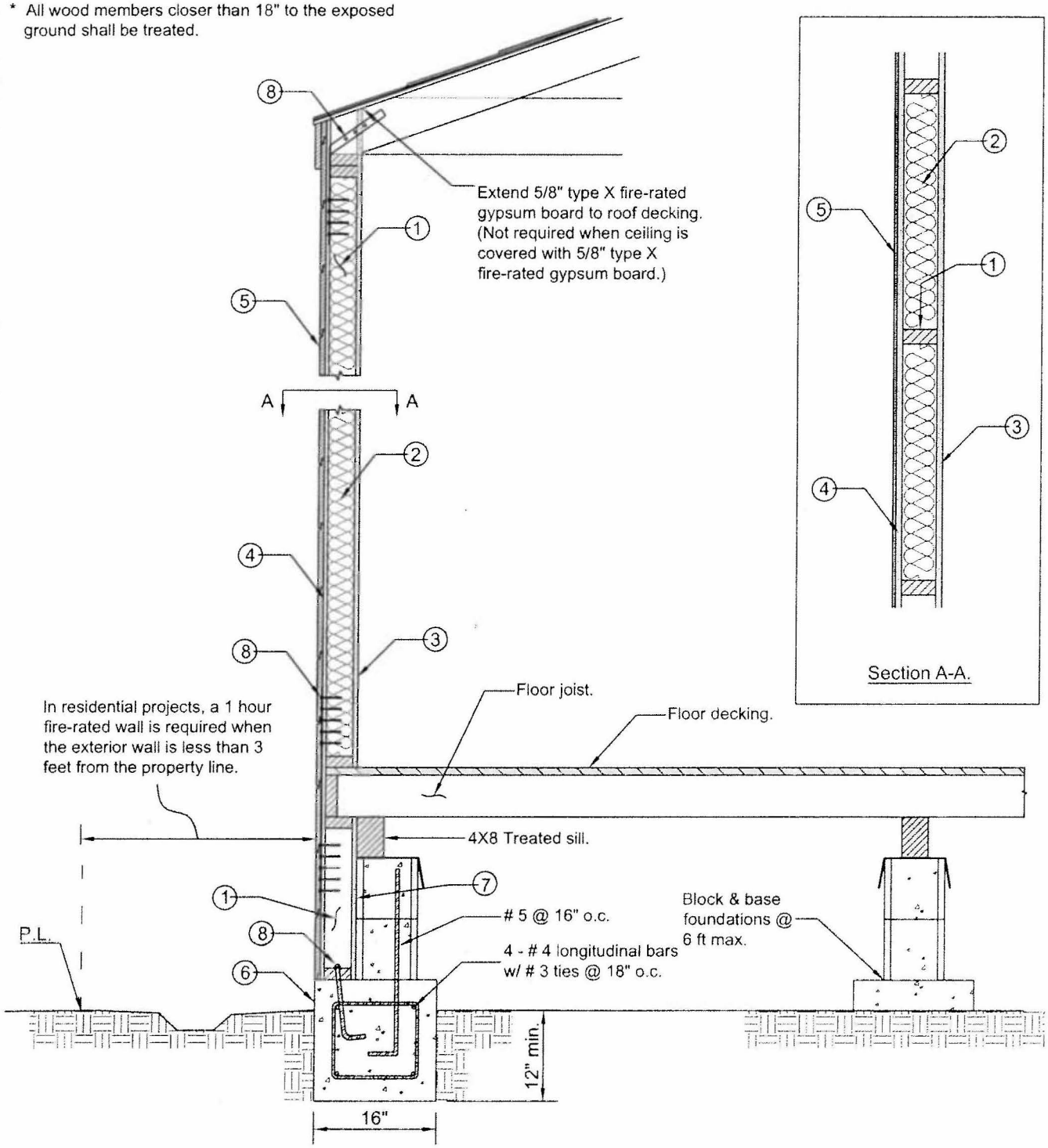
CITY OF HOUSTON
Department of Public Works and Engineering

1 Hour Fire-Rated Exterior Wall for Block & Base Foundations (Sub-floor Masonry Wall)

Approved by: Yam Haley
Building Official

Revision Date: 11/20/2013 | Dwg No: 12-05-R (Revision 1) | 1 of 1

* All wood members closer than 18" to the exposed ground shall be treated.




① Wood Studs: Nominal 2" X 4" solid sawn wood studs, 24" o.c. max, with two top plates and a single bottom plate.

② Insulation: R13 fiber glass batt insulation.

③ Gypsum Wallboard: 5/8" Type X gypsum wallboard 48" wide, oriented vertically and fastened with 1-3/4" long cup-head gypsum nails, spaced 7" on center at board edges and in field areas, or 1-1/2" Type S drywall screws, spaced 8" o.c. at board edges and in field areas of boards. The joints and nail heads require treatment consisting of joint compound followed by joint tape and a second layer of joint compound.

④ Gypsum Sheathing: 1/2" Type X or 5/8" Type X gypsum sheathing fastened with 1-3/4" long roofing nails spaced 7" o.c. in the field and 4" o.c. along the perimeter. Sheathing edge joints shall be staggered from those on opposite sides of the wall.

⑤ Fiber-Cement Exterior Siding: 5/16" thick Fiber-Cement lap siding, applied horizontally with a 1-1/4" headlap and fastened with a single 6d corrosion resistant common nail driven through the lapped planks at each stud location.

⑥ Grade Beam: Concrete shall have a minimum compressive strength of 2500 psi at 28 days.

⑦ Fire Rated Exterior Cement Board: 1/2" or 5/8" to match gypsum sheathing in (4). Fasten with 6d nails spaced 6" o.c. along the perimeter & 12" o.c. in the field.

⑧ Install strapping to provide continuous ties from the roof to the foundation system as per Appendix L of the City of Houston Residential Code.

CITY OF HOUSTON

Department of Public Works and Engineering

1 Hour Fire-Rated Exterior Wall for Block & Base Foundations (Sub-floor Knee Wall)

Approved by: Thomas Haskey Building Official

Revision Date: 11/7/2013 Dwg No: 12-06-R (Revision 1) 1 of 1

**City of Houston**
**Building Inspection**

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-R06** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **December 11, 2014** | | | | |
| **SUBJECT:** | **Glass Block in Exterior Fire-Rated Walls** | | | | |
| **CODE(S):** | **Residential & Building** | | | | |
| **SECTION(S)** | **R302.1 (IRC), Table 705.8 (IBC)** | | | | |

The code prohibits openings in exterior walls located within the minimum fire separation distance to the property line. In Group R-3 single family residences where openings are prohibited, fire-resistance rated masonry unit glass block may be used as part of the fire-resistance rated wall subject to the following criteria:

- The fire-resistance rating is based on NFPA 357 or UL 9 testing criteria with a hose stream test.
- The fire-resistance rated glass block portion of the wall is non-load bearing.
- The fire-resistance rated glass block is installed as a fixed partition that is not openable or moveable.
- Projections using glass block are not allowed.
- The maximum size area for the fire-resistance rated glass block is 120 square feet with the aggregate width at any floor level not to exceed 25 percent of the length of the wall.

Any construction, walls, or projections, 3 feet or less from the property line shall have a maintenance agreement with the adjacent property owner.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-R07 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | December 2, 2002 | | | | |
| SUBJECT: | Residential Garage Disappearing Stairs and Other Attic Access Openings | | | | |
| CODE(S): | Residential | | | | |
| SECTION(S) | R302.6 | | | | |

Section R302.6 of the Residential Code states in part:

> "Attic disappearing stairs shall be permitted to be installed in the garage ceiling provided the exposed panel is not less than ⅜ inch thick fire-retardant-treated plywood or covered with a minimum 16 gage sheet metal."

In addition to these two methods identified in the code for garage separations, the following methods are also acceptable for protecting the attic disappearing stairs and other attic access openings:

- untreated plywood protected with ½ inch thick gypsum board
- untreated plywood protected with an intumescent paint

In all cases the opening protection material is applied to the garage side of the plywood.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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| **CW No:** | **2012-R08** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **January 15, 1990** | | | | |
| **SUBJECT:** | **Existing Bedroom Windows** | | | | |
| **CODE(S):** | **Residential** | | | | |
| **SECTION(S)** | **R310.1.1** | | | | |

Existing bedroom windows, including the frames that do not meet the current code may be replaced with not less than the same size opening in the same location.

All replaced glass will be required to meet the safety glazing requirements of section R308 and any applicable Energy Code requirements.

Approved:

Earl N. Greer, Building Official

# City of Houston
## Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-R09** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 13, 2009** | | | | |
| **SUBJECT:** | **Residential Post Tension Foundation** | | | | |
| **CODE(S):** | **Residential** | | | | |
| **SECTION(S)** | **R401.2** | | | | |

A foundation for a residential structure or addition that is designed as a post-tension building element shall be documented in accordance with Section 1705.3 of the Building Code. This shall include sealed engineering design and qualified special inspection reports.

Approved:

Earl N. Greer, Building Official

**City of Houston**
**Building Inspection**

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-R10 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | Revision December 10, 2013 | | | | |
| SUBJECT: | Block and Base Foundations | | | | |
| CODE(S): | Residential & Building | | | | |
| SECTION(S) | R403.1 & R403.2 (IRC) and 1809.9(IBC) | | | | |

This policy is an acceptable alternate as per Section 104.11 of the Building Code for existing buildings when performing maintenance or repair of existing block and base foundations. This alternative shall apply to conventional light-frame construction designed with girders and supported on blocks and bases in such a manner that the building can be easily leveled any time after the full load has been applied. For repair of existing block and base foundations the following apply:

1. All loose material and vegetation must be removed to ensure solid bearing beneath bases.
2. End joints of girders shall occur over supports.
3. Minimum thickness of concrete bases shall be 4 inches.
4. The minimum width of the structure shall not be less than the overall height.
5. Girders shall not be placed further than the depth of the joist from the exterior wall.

For new and relocated buildings, as well as additions, block and base foundations shall be designed by a Texas registered Professional Engineer to comply with the applicable code sections, or in accordance with Code Enforcement Drawing #13-05-R

This interpretation is applicable to all building plans submitted on or after March 1, 2014.

Approved:

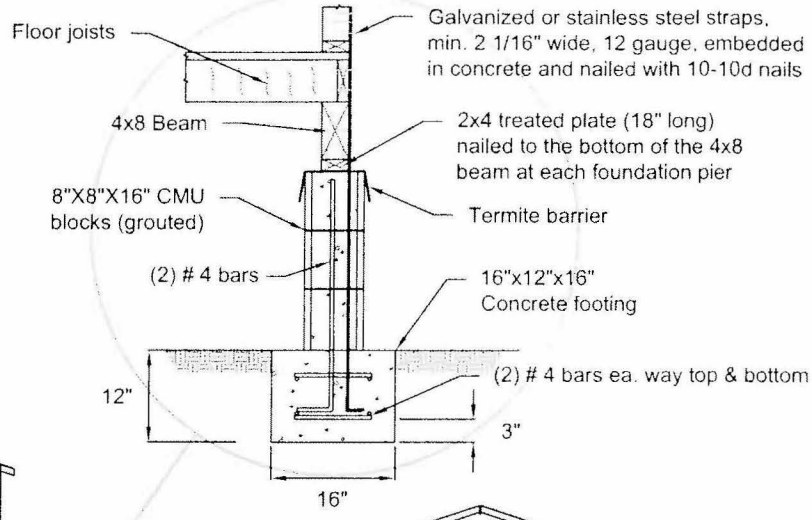
Earl N. Greer, Building Official

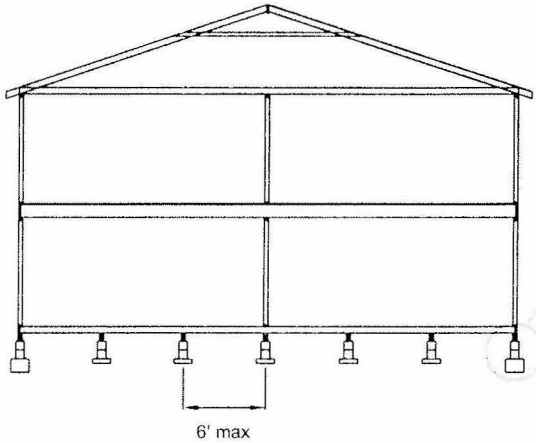
Notes:

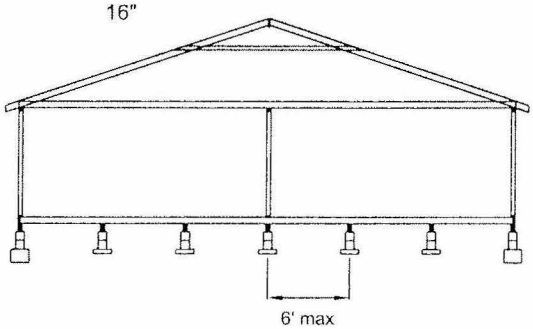
1. Provide hurricane strapping as per Appendix L of the City of Houston Residential Code.

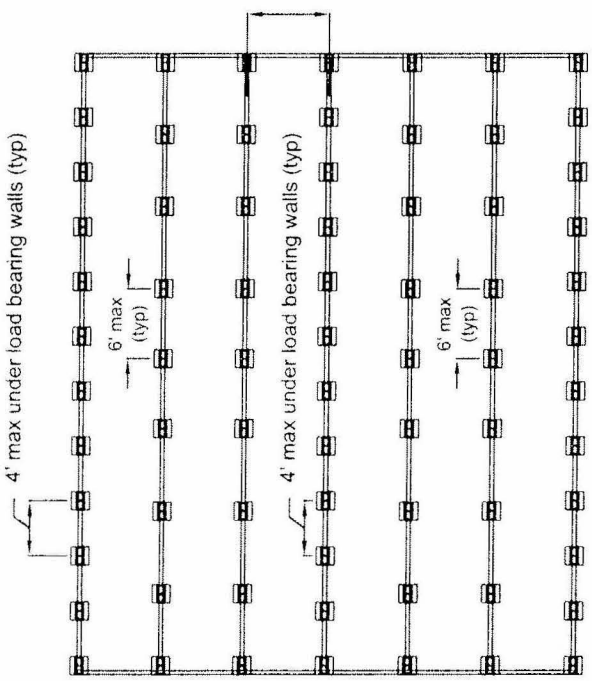
2. The under-floor grade shall be cleaned of all vegetation and organic material (section R408.5).

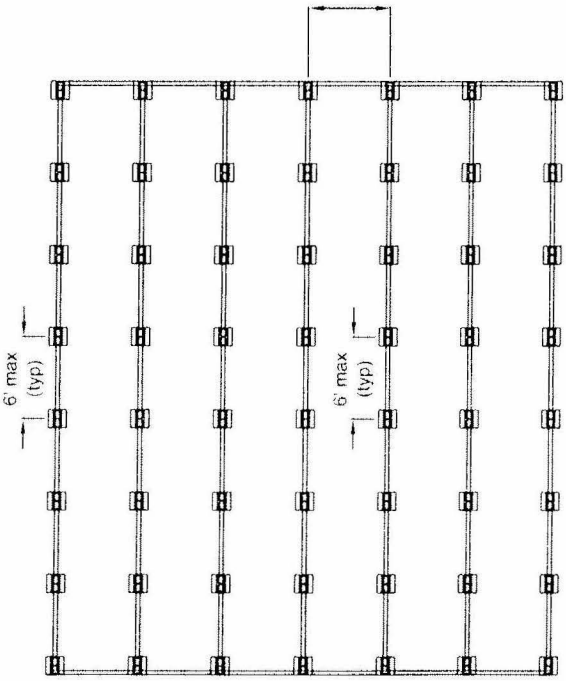
3. All exterior footings shall be placed at least 12 inches below the undisturbed ground surface (section R 403.1.4).








TWO-STORY RESIDENCE

ONE STORY RESIDENCE

STANDARD DRAWING

**CITY OF HOUSTON**
DEPARTMENT OF PUBLIC WORKS & ENGINEERING

# BLOCK & BASE FOUNDATIONS DETAILS

1002 WASHINGTON AVE., HOUSTON, TEXAS 77002

APPROVED BY
BUILDING OFFICIAL
APPROVED BY
CITY ENGINEER

DATE 10-02-2013 | DWG NO. 13-05-R | 1 OF 1

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| No: | 2012-R11 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| **PUBLICATION:** | **July 11, 2013** | | | | |
| **SUBJECT:** | **Design Values for visually graded Southern Pine dimensional lumber** | | | | |
| **CODE(S):** | **Residential and Building** | | | | |
| **SECTION(S)** | **Various** | | | | |

Effective June 1, 2013, the Southern Forest Products Association modified and reduced the recognized design allowances of visually graded Southern Yellow Pine lumber.

The 2012 Building and Residential Codes were published and adopted prior to these reductions being known or published and currently contain less stringent allowances.

In response to this industry change, the City of Houston will utilize the new recognized span tables published by the Southern Pine Inspection Bureau as of June 1.

For ease of use, the span tables are included herein for reference and replace the following tables:

**IRC**

| | |
|---|---|
| Floor Joists | R502.3.1 (1) - R502.3.1(2) |
| Cantilever Spans | R502.3.3 (1) - R502.3.3(2) |
| Girder and Header Spans | R502.5 (1) - R502.5(2) |
| Ceiling Joists | R802.4 (1) - R802.4(2) |
| Rafter Spans | R802.5.1 (1) - R802.5.1(8) |

**IBC**

| | |
|---|---|
| Floor Joists | 2308.8(1) – 2308.8(2) |
| Header and Girder | 2308.9.5 and 2308.9.6 |
| Ceiling Joists | 2308.10.2(1) - 2308.10.2(2) |
| Rafter Spans | 2308.10.3(1) - 2308.10.3(6) |

This change will not affect currently approved projects or plans that are in the plan review process nor other lumber species.

Approved:

Earl N. Greer, Building Official

SOUTHERN FOREST PRODUCTS ASSOCIATION

# Maximum Spans[1] for Southern Pine
## Effective June 1, 2013

NEW SOUTHERN PINE DESIGN VALUES

**All Sizes and Grades**
**of Visually Graded Southern Pine Dimension Lumber**

**Maximum spans in feet-inches**

## Table 1 Floor Joists – 30 psf live load, 10 psf dead load, 360 deflection

| Size | Spacing In. o.c. | Dense Select Structural | Select Structural | NonDense Select Structural | No.1 Dense | No.1 | No.1 NonDense | No.2 Dense | No.2 | No.2 NonDense | No.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2x4 | 12 | 7-11 | 7-10 | 7-6 | 7-10 | 7-6 | 7-2 | 7-6 | 7-2 | 7-0 | 6-2 |
| | 16 | 7-3 | 7-1 | 6-10 | 7-1 | 6-10 | 6-6 | 6-10 | 6-6 | 6-4 | 5-4 |
| | 24 | 6-4 | 6-2 | 6-0 | 6-2 | 6-0 | 5-8 | 5-11 | 5-8 | 5-7 | 4-4 |
| 2x6 | 12 | 12-6 | 12-3 | 11-10 | 12-3 | 11-10 | 11-3 | 11-10 | 11-3 | 11-0 | 9-2 |
| | 16 | 11-4 | 11-2 | 10-9 | 11-2 | 10-9 | 10-3 | 10-8 | 10-3 | 10-0 | 7-11 |
| | 24 | 9-11 | 9-9 | 9-4 | 9-9 | 9-4 | 8-11 | 8-9 | 8-6 | 8-4 | 6-5 |
| 2x8 | 12 | 16-6 | 16-2 | 15-7 | 16-2 | 15-7 | 14-11 | 15-7 | 14-11 | 14-6 | 11-6 |
| | 16 | 15-0 | 14-8 | 14-2 | 14-8 | 14-2 | 13-6 | 13-7 | 13-3 | 12-10 | 10-0 |
| | 24 | 13-1 | 12-10 | 12-4 | 12-10 | 12-4 | 11-9 | 11-1 | 10-10 | 10-6 | 8-2 |
| 2x10 | 12 | 21-0 | 20-8 | 19-10 | 20-8 | 19-10 | 19-0 | 18-8 | 18-1 | 17-6 | 13-11 |
| | 16 | 19-1 | 18-9 | 18-0 | 18-9 | 18-0 | 17-1 | 16-2 | 15-8 | 15-2 | 12-1 |
| | 24 | 16-8 | 16-5 | 15-9 | 15-8 | 14-8 | 13-11 | 13-2 | 12-10 | 12-5 | 9-10 |
| 2x12 | 12 | 25-7 | 25-1 | 24-2 | 25-1 | 24-2 | 23-1 | 22-0 | 21-4 | 20-7 | 16-6 |
| | 16 | 23-3 | 22-10 | 21-11 | 22-4 | 21-4 | 20-3 | 19-1 | 18-6 | 17-10 | 14-4 |
| | 24 | 20-3 | 19-11 | 19-2 | 18-3 | 17-5 | 16-6 | 15-7 | 15-1 | 14-7 | 11-8 |

[1]The Southern Pine Inspection Bureau published new design values for all sizes and grades of visually graded Southern Pine dimension lumber in *Supplement No.13* to the *2002 Standard Grading Rules for Southern Pine Lumber*. These maximum spans were calculated using the new design values which became effective June 1, 2013. Applied loads are given in psf (pounds per square foot). Deflection is limited to the span in inches divided by 360 or 240 and is based on live load only. The load duration factor, $C_D$, is 1.0 unless shown as 1.15 for snow loads or 1.25 for construction loads. An asterisk (*) indicates the listed span has been limited to 26'0" based on availability; check sources of supply for lumber longer than 20'.

The Southern Forest Products Association (SFPA) does not test lumber or establish design values. Accordingly, neither SFPA, nor its members, warrant that the design values on which the span tables are based are correct, and disclaim responsibility for injury or damage resulting from the use of such span tables.

SOUTHERN FOREST PRODUCTS ASSOCIATION

# Maximum Spans[1] for Southern Pine
## Effective June 1, 2013

NEW SOUTHERN PINE DESIGN VALUES

**All Sizes and Grades**
**of Visually Graded Southern Pine Dimension Lumber**

**Maximum spans in feet-inches**

## Table 2 Floor Joists – 40 psf live load, 10 psf dead load, 360 deflection

| Size | Spacing In. o.c. | Dense Select Structural | Select Structural | NonDense Select Structural | No.1 Dense | No.1 | No.1 NonDense | No.2 Dense | No.2 | No.2 NonDense | No.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2x4 | 12 | 7-3 | 7-1 | 6-10 | 7-1 | 6-10 | 6-6 | 6-10 | 6-6 | 6-4 | 5-6 |
| | 16 | 6-7 | 6-5 | 6-2 | 6-5 | 6-2 | 5-11 | 6-2 | 5-11 | 5-9 | 4-9 |
| | 24 | 5-9 | 5-8 | 5-5 | 5-8 | 5-5 | 5-2 | 5-4 | 5-1 | 5-0 | 3-11 |
| 2x6 | 12 | 11-4 | 11-2 | 10-9 | 11-2 | 10-9 | 10-3 | 10-9 | 10-3 | 10-0 | 8-2 |
| | 16 | 10-4 | 10-2 | 9-9 | 10-2 | 9-9 | 9-4 | 9-7 | 9-4 | 9-1 | 7-1 |
| | 24 | 9-0 | 8-10 | 8-6 | 8-10 | 8-6 | 8-2 | 7-10 | 7-7 | 7-5 | 5-9 |
| 2x8 | 12 | 15-0 | 14-8 | 14-2 | 14-8 | 14-2 | 13-6 | 14-0 | 13-6 | 13-2 | 10-3 |
| | 16 | 13-7 | 13-4 | 12-10 | 13-4 | 12-10 | 12-3 | 12-2 | 11-10 | 11-6 | 8-11 |
| | 24 | 11-11 | 11-8 | 11-3 | 11-8 | 11-3 | 10-6 | 9-11 | 9-8 | 9-5 | 7-3 |
| 2x10 | 12 | 19-1 | 18-9 | 18-0 | 18-9 | 18-0 | 17-3 | 16-8 | 16-2 | 15-8 | 12-6 |
| | 16 | 17-4 | 17-0 | 16-5 | 17-0 | 16-1 | 15-3 | 14-6 | 14-0 | 13-7 | 10-10 |
| | 24 | 15-2 | 14-11 | 14-4 | 14-0 | 13-1 | 12-6 | 11-10 | 11-5 | 11-1 | 8-10 |
| 2x12 | 12 | 23-3 | 22-10 | 21-11 | 22-10 | 21-11 | 20-11 | 19-8 | 19-1 | 18-5 | 14-9 |
| | 16 | 21-1 | 20-9 | 19-11 | 20-0 | 19-1 | 18-1 | 17-1 | 16-6 | 16-0 | 12-10 |
| | 24 | 18-5 | 18-1 | 17-5 | 16-4 | 15-7 | 14-9 | 13-11 | 13-6 | 13-0 | 10-5 |

[1]The Southern Pine Inspection Bureau published new design values for all sizes and grades of visually graded Southern Pine dimension lumber in *Supplement No.13* to the *2002 Standard Grading Rules for Southern Pine Lumber*. These maximum spans were calculated using the new design values which became effective June 1, 2013. Applied loads are given in psf (pounds per square foot). Deflection is limited to the span in inches divided by 360 or 240 and is based on live load only. The load duration factor, $C_D$, is 1.0 unless shown as 1.15 for snow loads or 1.25 for construction loads. An asterisk (*) indicates the listed span has been limited to 26'0" based on availability; check sources of supply for lumber longer than 20'.

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SOUTHERN FOREST PRODUCTS ASSOCIATION

# Maximum Spans[1] for Southern Pine
## Effective June 1, 2013

NEW SOUTHERN PINE DESIGN VALUES

**All Sizes and Grades**
**of Visually Graded Southern Pine Dimension Lumber**

**Maximum spans in feet-inches**

## Table 12 Wet-Service Floor Joists (MC>19%) – 40 psf live load, 10 psf dead load, 360 deflection

| Size | Spacing In. o.c. | Dense Select Structural | Select Structural | NonDense Select Structural | No.1 Dense | No.1 | No.1 NonDense | No.2 Dense | No.2 | No.2 NonDense | No.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2x4 | 12 | 7-0 | 6-10 | 6-7 | 6-10 | 6-7 | 6-4 | 6-7 | 6-4 | 6-2 | 5-6 |
| | 16 | 6-4 | 6-3 | 6-0 | 6-3 | 6-0 | 5-9 | 6-0 | 5-9 | 5-7 | 4-9 |
| | 24 | 5-6 | 5-5 | 5-3 | 5-5 | 5-3 | 5-0 | 4-11 | 5-0 | 4-11 | 3-11 |
| 2x6 | 12 | 11-0 | 10-9 | 10-4 | 10-9 | 10-4 | 9-11 | 10-4 | 9-11 | 9-8 | 8-2 |
| | 16 | 10-0 | 9-9 | 9-5 | 9-9 | 9-5 | 9-0 | 9-5 | 9-0 | 8-9 | 7-1 |
| | 24 | 8-8 | 8-7 | 8-3 | 8-7 | 8-2 | 7-8 | 7-10 | 7-7 | 7-5 | 5-9 |
| 2x8 | 12 | 14-5 | 14-2 | 13-8 | 14-2 | 13-8 | 13-1 | 13-8 | 13-1 | 12-9 | 10-3 |
| | 16 | 13-2 | 12-11 | 12-5 | 12-11 | 12-5 | 11-10 | 12-2 | 11-10 | 11-6 | 8-11 |
| | 24 | 11-6 | 11-3 | 10-10 | 10-9 | 10-4 | 10-4 | 9-11 | 9-8 | 9-5 | 7-3 |
| 2x10 | 12 | 18-5 | 18-1 | 17-5 | 18-1 | 17-5 | 16-8 | 16-8 | 16-2 | 15-8 | 12-6 |
| | 16 | 16-9 | 16-5 | 15-10 | 15-10 | 15-10 | 15-2 | 14-6 | 14-0 | 13-7 | 10-10 |
| | 24 | 14-8 | 14-4 | 13-10 | 12-11 | 13-1 | 12-6 | 11-10 | 11-5 | 11-1 | 8-10 |
| 2x12 | 12 | 22-5 | 22-0 | 21-2 | 22-0 | 21-2 | 20-3 | 19-8 | 19-1 | 18-5 | 14-9 |
| | 16 | 20-4 | 20-0 | 19-3 | 20-0 | 19-1 | 18-1 | 17-1 | 16-6 | 16-0 | 12-10 |
| | 24 | 17-10 | 17-6 | 16-10 | 16-4 | 15-7 | 14-9 | 13-11 | 13-6 | 13-0 | 10-5 |

[1]The Southern Pine Inspection Bureau published new design values for all sizes and grades of visually graded Southern Pine dimension lumber in *Supplement No.13* to the *2002 Standard Grading Rules for Southern Pine Lumber*. These maximum spans were calculated using the new design values which became effective June 1, 2013. Applied loads are given in psf (pounds per square foot). Deflection is limited to the span in inches divided by 360 or 240 and is based on live load only. The load duration factor, $C_D$, is 1.0 unless shown as 1.15 for snow loads or 1.25 for construction loads. An asterisk (*) indicates the listed span has been limited to 26'0" based on availability; check sources of supply for lumber longer than 20'.

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SOUTHERN FOREST PRODUCTS ASSOCIATION

# Maximum Spans[1] for Southern Pine
## Effective June 1, 2013

NEW SOUTHERN PINE DESIGN VALUES

**All Sizes and Grades**
**of Visually Graded Southern Pine Dimension Lumber**

**Maximum spans in feet-inches**

## Table 15 Ceiling Joists – 10 psf live load, 5 psf dead load, 240 deflection

| Size | Spacing In. o.c. | Dense Select Structural | Select Structural | NonDense Select Structural | No.1 Dense | No.1 | No.1 NonDense | No.2 Dense | No.2 | No.2 NonDense | No.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2x4 | 12 | 13-2 | 12-11 | 12-5 | 12-11 | 12-5 | 11-10 | 12-5 | 11-10 | 11-7 | 10-1 |
| | 16 | 11-11 | 11-9 | 11-3 | 11-9 | 11-3 | 10-9 | 11-3 | 10-9 | 10-6 | 8-9 |
| | 24 | 10-5 | 10-3 | 9-10 | 10-3 | 9-10 | 9-5 | 9-8 | 9-3 | 9-1 | 7-2 |
| 2x6 | 12 | 20-8 | 20-3 | 19-6 | 20-3 | 19-6 | 18-8 | 19-6 | 18-8 | 18-2 | 14-11 |
| | 16 | 18-9 | 18-5 | 17-8 | 18-5 | 17-8 | 16-11 | 17-5 | 16-11 | 16-6 | 12-11 |
| | 24 | 16-4 | 16-1 | 15-6 | 16-1 | 15-6 | 14-9 | 14-3 | 13-11 | 13-7 | 10-7 |
| 2x8 | 12 | 26-0* | 26-0* | 25-8 | 26-0* | 25-8 | 24-7 | 25-7 | 24-7 | 24-0 | 18-9 |
| | 16 | 24-8 | 24-3 | 23-4 | 24-3 | 23-4 | 22-4 | 22-2 | 21-7 | 21-0 | 16-3 |
| | 24 | 21-7 | 21-2 | 20-5 | 21-2 | 20-5 | 19-3 | 18-1 | 17-7 | 17-2 | 13-3 |
| 2x10 | 12 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 22-9 |
| | 16 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 25-7 | 24-10 | 19-9 |
| | 24 | 26-0* | 26-0* | 26-0 | 25-7 | 23-11 | 22-9 | 21-7 | 20-11 | 20-3 | 16-1 |
| 2x12 | 12 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* |
| | 16 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 23-4 |
| | 24 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 25-5 | 24-8 | 23-9 | 19-1 |

[1]The Southern Pine Inspection Bureau published new design values for all sizes and grades of visually graded Southern Pine dimension lumber in *Supplement No.13* to the *2002 Standard Grading Rules for Southern Pine Lumber*. These maximum spans were calculated using the new design values which became effective June 1, 2013. Applied loads are given in psf (pounds per square foot). Deflection is limited to the span in inches divided by 360 or 240 and is based on live load only. The load duration factor, $C_D$, is 1.0 unless shown as 1.15 for snow loads or 1.25 for construction loads. An asterisk (*) indicates the listed span has been limited to 26'0" based on availability; check sources of supply for lumber longer than 20'.

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SOUTHERN FOREST PRODUCTS ASSOCIATION

# Maximum Spans[1] for Southern Pine
## Effective June 1, 2013

NEW SOUTHERN PINE DESIGN VALUES

**All Sizes and Grades**
**of Visually Graded Southern Pine Dimension Lumber**

**Maximum spans in feet-inches**

## Table 16 Ceiling Joists – 20 psf live load, 10 psf dead load, 240 deflection

| Size | Spacing In. o.c. | Dense Select Structural | Select Structural | NonDense Select Structural | No.1 Dense | No.1 | No.1 NonDense | No.2 Dense | No.2 | No.2 NonDense | No.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2x4 | 12 | 10-5 | 10-3 | 9-10 | 10-3 | 9-10 | 9-5 | 9-8 | 9-3 | 9-1 | 7-2 |
| | 16 | 9-6 | 9-4 | 8-11 | 9-4 | 8-11 | 8-7 | 8-5 | 8-0 | 7-10 | 6-2 |
| | 24 | 8-3 | 8-1 | 7-10 | 8-0 | 7-8 | 7-2 | 6-10 | 6-7 | 6-5 | 5-1 |
| 2x6 | 12 | 16-4 | 16-1 | 15-6 | 16-1 | 15-6 | 14-9 | 14-3 | 13-11 | 13-7 | 10-7 |
| | 16 | 14-11 | 14-7 | 14-1 | 14-7 | 14-0 | 13-2 | 12-4 | 12-0 | 11-9 | 9-2 |
| | 24 | 13-0 | 12-9 | 12-3 | 12-0 | 11-5 | 10-9 | 10-1 | 9-10 | 9-7 | 7-5 |
| 2x8 | 12 | 21-7 | 21-2 | 20-5 | 21-2 | 20-5 | 19-3 | 18-1 | 17-7 | 17-2 | 13-3 |
| | 16 | 19-7 | 19-3 | 18-6 | 18-5 | 17-9 | 16-8 | 15-8 | 15-3 | 14-10 | 11-6 |
| | 24 | 17-2 | 16-10 | 16-2 | 15-1 | 14-6 | 13-7 | 12-10 | 12-6 | 12-1 | 9-5 |
| 2x10 | 12 | 26-0* | 26-0* | 26-0 | 25-7 | 23-11 | 22-9 | 21-7 | 20-11 | 20-3 | 16-1 |
| | 16 | 25-0 | 24-7 | 23-8 | 22-2 | 20-9 | 19-9 | 18-8 | 18-1 | 17-6 | 13-11 |
| | 24 | 21-10 | 21-6 | 20-3 | 18-1 | 16-11 | 16-1 | 15-3 | 14-9 | 14-4 | 11-5 |
| 2x12 | 12 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 25-5 | 24-8 | 23-9 | 19-1 |
| | 16 | 26-0* | 26-0* | 26-0* | 25-10 | 24-8 | 23-4 | 22-0 | 21-4 | 20-7 | 16-6 |
| | 24 | 26-0* | 25-5 | 23-9 | 21-1 | 20-1 | 19-1 | 18-0 | 17-5 | 16-10 | 13-6 |

[1]The Southern Pine Inspection Bureau published new design values for all sizes and grades of visually graded Southern Pine dimension lumber in *Supplement No.13* to the *2002 Standard Grading Rules for Southern Pine Lumber*. These maximum spans were calculated using the new design values which became effective June 1, 2013. Applied loads are given in psf (pounds per square foot). Deflection is limited to the span in inches divided by 360 or 240 and is based on live load only. The load duration factor, $C_D$, is 1.0 unless shown as 1.15 for snow loads or 1.25 for construction loads. An asterisk (*) indicates the listed span has been limited to 26'0" based on availability; check sources of supply for lumber longer than 20'.

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SOUTHERN FOREST PRODUCTS ASSOCIATION

# Maximum Spans[1] for Southern Pine
## Effective June 1, 2013

NEW SOUTHERN PINE DESIGN VALUES

**All Sizes and Grades**
**of Visually Graded Southern Pine Dimension Lumber**

**Maximum spans in feet-inches**

## Table 17 Rafters – 20 psf live load, 10 psf dead load, 240 deflection, $C_D$ = 1.15

| Size | Spacing In. o.c. | Dense Select Structural | Select Structural | NonDense Select Structural | No.1 Dense | No.1 | No.1 NonDense | No.2 Dense | No.2 | No.2 NonDense | No.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2x4 | 12 | 10-5 | 10-3 | 9-10 | 10-3 | 9-10 | 9-5 | 9-10 | 9-5 | 9-2 | 7-8 |
| | 16 | 9-6 | 9-4 | 8-11 | 9-4 | 8-11 | 8-7 | 8-11 | 8-7 | 8-4 | 6-7 |
| | 24 | 8-3 | 8-1 | 7-10 | 8-1 | 7-10 | 7-6 | 7-4 | 7-0 | 6-10 | 5-5 |
| 2x6 | 12 | 16-4 | 16-1 | 15-6 | 16-1 | 15-6 | 14-9 | 15-3 | 14-9 | 14-5 | 11-4 |
| | 16 | 14-11 | 14-7 | 14-1 | 14-7 | 14-1 | 13-5 | 13-3 | 12-11 | 12-7 | 9-9 |
| | 24 | 13-0 | 12-9 | 12-3 | 12-9 | 12-3 | 11-7 | 10-10 | 10-7 | 10-3 | 8-0 |
| 2x8 | 12 | 21-7 | 21-2 | 20-5 | 21-2 | 20-5 | 19-6 | 19-5 | 18-11 | 18-5 | 14-3 |
| | 16 | 19-7 | 19-3 | 18-6 | 19-3 | 18-6 | 17-9 | 16-10 | 16-4 | 15-11 | 12-4 |
| | 24 | 17-2 | 16-10 | 16-2 | 16-2 | 15-6 | 14-7 | 13-9 | 13-4 | 13-0 | 10-1 |
| 2x10 | 12 | 26-0* | 26-0* | 26-0 | 26-0* | 25-8 | 24-5 | 23-1 | 22-5 | 21-9 | 17-3 |
| | 16 | 25-0 | 24-7 | 23-8 | 23-9 | 22-3 | 21-2 | 20-0 | 19-5 | 18-10 | 15-0 |
| | 24 | 21-10 | 21-6 | 20-8 | 19-5 | 18-2 | 17-3 | 16-4 | 15-10 | 15-4 | 12-3 |
| 2x12 | 12 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 25-6 | 20-5 |
| | 16 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 25-1 | 23-7 | 22-10 | 22-1 | 17-9 |
| | 24 | 26-0* | 26-0* | 25-1 | 22-7 | 21-7 | 20-5 | 19-3 | 18-8 | 18-0 | 14-6 |

[1]The Southern Pine Inspection Bureau published new design values for all sizes and grades of visually graded Southern Pine dimension lumber in *Supplement No.13* to the *2002 Standard Grading Rules for Southern Pine Lumber*. These maximum spans were calculated using the new design values which became effective June 1, 2013. Applied loads are given in psf (pounds per square foot). Deflection is limited to the span in inches divided by 360 or 240 and is based on live load only. The load duration factor, $C_D$, is 1.0 unless shown as 1.15 for snow loads or 1.25 for construction loads. An asterisk (*) indicates the listed span has been limited to 26'0" based on availability; check sources of supply for lumber longer than 20'.

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SOUTHERN FOREST PRODUCTS ASSOCIATION

# Maximum Spans[1] for Southern Pine
## Effective June 1, 2013

NEW SOUTHERN PINE DESIGN VALUES

**All Sizes and Grades**
**of Visually Graded Southern Pine Dimension Lumber**

**Maximum spans in feet-inches**

## Table 41 Rafters – 20 psf live load, 10 psf dead load, 240 deflection, $C_D$ = 1.25

| Size | Spacing In. o.c. | Dense Select Structural | Select Structural | NonDense Select Structural | No.1 Dense | No.1 | No.1 NonDense | No.2 Dense | No.2 | No.2 NonDense | No.3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2x4 | 12 | 10-5 | 10-3 | 9-10 | 10-3 | 9-10 | 9-5 | 9-10 | 9-5 | 9-2 | 8-0 |
| | 16 | 9-6 | 9-4 | 8-11 | 9-4 | 8-11 | 8-7 | 8-11 | 8-7 | 8-4 | 6-11 |
| | 24 | 8-3 | 8-1 | 7-10 | 8-1 | 7-10 | 7-6 | 7-8 | 7-4 | 7-2 | 5-8 |
| 2x6 | 12 | 16-4 | 16-1 | 15-6 | 16-1 | 15-6 | 14-9 | 15-6 | 14-9 | 14-5 | 11-9 |
| | 16 | 14-11 | 14-7 | 14-1 | 14-7 | 14-1 | 13-5 | 13-10 | 13-5 | 13-1 | 10-2 |
| | 24 | 13-0 | 12-9 | 12-3 | 12-9 | 12-3 | 11-9 | 11-3 | 11-0 | 10-9 | 8-4 |
| 2x8 | 12 | 21-7 | 21-2 | 20-5 | 21-2 | 20-5 | 19-6 | 20-3 | 19-6 | 19-0 | 14-10 |
| | 16 | 19-7 | 19-3 | 18-6 | 19-3 | 18-6 | 17-9 | 17-6 | 17-1 | 16-7 | 12-10 |
| | 24 | 17-2 | 16-10 | 16-2 | 16-10 | 16-2 | 15-2 | 14-4 | 13-11 | 13-7 | 10-6 |
| 2x10 | 12 | 26-0* | 26-0* | 26-0 | 26-0* | 26-0 | 24-10 | 24-1 | 23-5 | 22-8 | 18-0 |
| | 16 | 25-0 | 24-7 | 23-8 | 24-7 | 23-2 | 22-1 | 20-10 | 20-3 | 19-7 | 15-7 |
| | 24 | 21-10 | 21-6 | 20-8 | 20-3 | 18-11 | 18-0 | 17-0 | 16-6 | 16-0 | 12-9 |
| 2x12 | 12 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 21-4 |
| | 16 | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 26-0* | 24-8 | 23-10 | 23-0 | 18-6 |
| | 24 | 26-0* | 26-0* | 25-1 | 23-7 | 22-6 | 21-4 | 20-1 | 19-6 | 18-10 | 15-1 |

[1]The Southern Pine Inspection Bureau published new design values for all sizes and grades of visually graded Southern Pine dimension lumber in *Supplement No.13* to the *2002 Standard Grading Rules for Southern Pine Lumber*. These maximum spans were calculated using the new design values which became effective June 1, 2013. Applied loads are given in psf (pounds per square foot). Deflection is limited to the span in inches divided by 360 or 240 and is based on live load only. The load duration factor, $C_D$, is 1.0 unless shown as 1.15 for snow loads or 1.25 for construction loads. An asterisk (*) indicates the listed span has been limited to 26'0" based on availability; check sources of supply for lumber longer than 20'.

The Southern Forest Products Association (SFPA) does not test lumber or establish design values. Accordingly, neither SFPA, nor its members, warrant that the design values on which the span tables are based are correct, and disclaim responsibility for injury or damage resulting from the use of such span tables.

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-R12** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **March 11, 1994** | | | | |
| **SUBJECT:** | **Condensate Removal** | | | | |
| **CODE(S):** | **Residential & Mechanical** | | | | |
| **SECTION(S)** | **M1411.3 (IRC) and 312 (UMC)** | | | | |

**R-3 Occupancies**

Air conditioning units installed in closets of R-3 residential buildings may discharge condensate into a funnel drain without a trap primer, provided that: the trap is above the floor, the funnel is above the platform and is accessible when the closet door is open.

**All other occupancies**

In any occupancy, when a cooling coil or cooling unit is located in an area where the required secondary condensate drain pipe cannot be routed to a point which can readily be observed, the secondary drain pan or standing overflow outlet may be connected to the main drain line downstream of the primary drain pan provided the following requirements are met:

1. A float-switch designed to shut off the cooling unit is installed in the primary drain pan.

2. Appropriate fittings for the condensate piping in use are employed to make the secondary to primary pipe connection.

3. Adequate pipe insulation is installed on and around the secondary to primary pipe connection.

Condensate drains shall not connect to the tailpiece of a kitchen sink or to any such fixture serving a food preparation area, nor shall secondary drains be stubbed-out over any such fixture in a food preparation area.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-R13** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 29, 1987** | | | | |
| **SUBJECT:** | **Combustion Air** | | | | |
| **CODE(S):** | **Mechanical & Residential** | | | | |
| **SECTION(S)** | **701.5 (UMC) and G2407.6.2 (IRC)** | | | | |

As an alternate to the requirements of one half of the required combustion air opening being located within the lower 12 inches, all combustion air openings in an enclosure may be located within the upper 12 inches of the enclosure, provided there is an unobstructed area equal to twice the required opening area extending to the firebox.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-R14** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 15, 1995** | | | | |
| **SUBJECT:** | **Attic Access to Gas Fired Furnaces** | | | | |
| **CODE(S):** | **Mechanical & Residential** | | | | |
| **SECTION(S)** | **904.1 (UMC) and G2406.2 (IRC)** | | | | |

An access opening to a warm-air furnace located in a ventilated attic may be placed in the ceiling of a bedroom.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-R15** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 1, 1991** | | | | |
| **SUBJECT:** | **Size of Potable Water Piping** | | | | |
| **CODE(S):** | **Residential & Plumbing** | | | | |
| **SECTION(S)** | **P2903 (IRC) and 610 (UPC)** | | | | |

| | **Fixture Units** | | | **Total Fixtures** |
|---|---|---|---|---|
| | ***Allowed*** | ***Each Item*** | = | ***Units*** |
| Water Closets | 2 | 3 | = | 6 |
| Bathtubs (with or without shower head over) | 2 | 2 | = | 4 |
| Shower | 1 | 2 | = | 2 |
| Lavatory | 3 | 1 | = | 3 |
| Kitchen Sink | 1 | 2 | = | 2 |
| Clothes washer | 1 | 2 | = | 2 |
| Hose Bibb | 1 | 3 | = | 3 |

**Total = 22**

Any residential remodel or addition which would exceed a total of 22 fixture units will be required to comply with the current code requirements for water sizing. (EXCEPTION: A residential remodel or addition which would total 23 or 24 fixture units may be approved by the Plumbing Division Manager.)

The City of Houston will allow the following sizing on existing residences being remodeled or added on to with an existing 5/8" meter and 3/4" building supply.

Current Code would require a 1" water meter and a 1" building supply for the same fixture total. (NOTE: The above information is based on an average 100' developed length from the meter to the farthest most outlet on the water system using Table 6-4., Pressure Range 30-45 psi)

This interpretation is only valid for additions and remodels of single family residences.

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| No: | 2012-R16 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | August 13, 2013 | | | | |
| SUBJECT: | Water Pressure Testing | | | | |
| CODE(S): | Residential and Plumbing | | | | |
| SECTION(S) | P2903.3 (IRC) and 608.1 (UPC) | | | | |

The requirements for minimum water pressure are described differently in the International Residential Code and the Uniform Plumbing Code although they both set the minimum water supply pressure required for a building. Section P2903.3 of the IRC requires a static pressure of 40 psi at the building entrance while Section 608.1 of the UPC requires a residual pressure of 15 psi after accounting for pressure losses. They are considered equivalent and either may be accepted for a new single family residence.

New single family homes will be tested for both the static and residual pressures and must comply with at least one of these standards. A water pressure test of both static and residual shall be performed at the rough piping inspection, if the permanent water supply is available and connected, or at final inspection if the water supply was not available at the rough inspection. If the pressure is not in compliance with at least one of these test standards for either static or residual pressure, the developer/applicant will be required to modify the system to meet the standard, which in some cases may require that a tank and pump be installed.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-R17 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | August 2, 2017 | | | | |
| SUBJECT: | Fire-Resistance Rating for Exterior Wall Projections | | | | |
| CODE(S): | Residential | | | | |
| SECTION(S) | T302.1(1) | | | | |

Effective September 1, 2017, the City of Houston will begin enforcing requirements for exterior wall projections in residential buildings.

The intent of Table 302.1(1), regarding projections, is that any exterior wall projection less than 3 feet to the property line must be protected as required.

**TABLE R302.1 (1)**
**EXTERIOR WALLS**

| EXTERIOR WALL ELEMENT | | MINIMUM FIRE-RESISTANCE RATING | MINIMUM FIRE SEPARATION DISTANCE |
|---|---|---|---|
| Walls | Fire-resistance rated | 1 hour—tested in accordance with ASTM E 119 or UL 263 with exposure from both sides | <~~5~~3 feet |
| | Not fire-resistance rated | 0 hours | >~~5~~3 feet |
| Projections | Fire-resistance rated | 1 hour on the face and underside | ≥2 feet to <~~5~~3 feet |
| | Not fire-resistance rated | 0 hours | ≥~~5~~3 feet |
| Openings in walls | Not allowed | N/A | < 3 feet |
| | 25% maximum of wall area | 0 hours | 3 feet |
| | Unlimited | 0 hours | 5 feet |
| Penetrations | All | Comply with Section R302.4 | < 5 feet |
| | | None required | 5 feet |

For SI: 1 foot = 304.8 min.
N/A = Not Applicable

Approved:

Earl N. Greer, Building Official

**City of Houston**
**Building Inspection**

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2020 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012- R18** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 07, 1993** | | | | |
| **SUBJECT:** | **Residential Accessory Structures** | | | | |
| **CODE(S):** | **2012 Houston Building and Residential Codes** | | | | |
| **SECTION(S)** | **104.1** | | | | |

This Code Word addresses concerns and prevents occurrences of residential accessory buildings from being converted to commercial businesses (hair salon, auto repair, etc.) without having the necessary commercial/business permits or meeting appropriate commercial construction. This existing policy prohibits placement of a residential accessory structure on any private property where the proposed building is the only structure located on a lot or property.

Historically, the City of Houston has had issues with permitted standalone storage structures on residential lots. Examples include, but are not limited to a lone residential garage, storage building, shipping container, etc... Permitting these types of structure without the adjacent residence routinely results in the building being converted to a commercial business without proper permits.

This policy will address the ongoing issue associated with accessory residential structures that include, but is not limited to, the placement or new construction of a proposed residential garage or storage building that are then converted without permits to a commercial business such as a beauty salon, auto repair, or other business without appropriate permits or construction.

As an alternate to a residential accessory building, a commercial storage building may be proposed for permit and construction on a residential lot or property.

Approved:

Mark Savasta, CFM, CBO, MCP, FM
Houston Building Official

City of Houston
Building Inspection
# CODE WORD 2012
INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-M01 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| PUBLICATION: | October 15, 1996 | | | | |
| SUBJECT: | Utility Release Option | | | | |
| CODE(S): | Mechanical, Electrical & Plumbing | | | | |
| SECTION(S) | 111 (UMC), 103 (UPC), 302.1 (NEC) | | | | |

**PURPOSE:** Utility release options allow such items as dishwashers, ranges, condensing units, charcoal cooktops and other such fixtures and appliances to be absent from the completed residence during the final inspection while providing approval for the release of utility connections.

**PERMIT:** A permit for each craft involved in a particular appliance or fixture is required in order to facilitate a Utility Release Option. Permits must be purchased at the same time the regular permit is obtained or at any point during construction of the house. This permit is a separate distinct project number from the original and should indicate "for appliances not set. REF: _____" (original project number)

## PROCEDURE

### Plumbing

A "temporary gas permit" must be obtained by the licensed plumber using the project number of the primary construction project. Contractors shall schedule a final inspection as usual. The existence of a temporary gas permit will indicate to the inspector that certain plumbing items will be absent. At the time the inspection is called into the Plumbing Section, the contractor shall clearly indicate that there is a temporary gas permit and that certain plumbing items will be absent at the time of the final inspection. All plumbing other than the specific item(s) to remain absent shall be complete and in compliance with the code. Upon approval by the inspector, the temporary gas permit will allow the gas utility company to install the gas meter.

The primary project will not be fully finaled until the absent appliances or fixtures are installed and inspected by the plumbing inspector. The primary project will remain active for a period of one-hundred eighty (180) days. During that period, it is expected that the absent equipment or fixture will be installed and inspected.

The plumbing contractor must remain vigilant and secure inspection on the primary permit as soon as the absent plumbing items are completed.

| CW No: | 2012-M01 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|
| **Utility Release Option continued** | | | | | |

**Mechanical**
Air conditioning contractors who will complete the installation of the environmental air conditioning system less the condensing unit, and/or complete the installation of the air-conditioning system less the kitchen ventilation device, must follow the provisions of Code Word 2006-34.

**Electrical**
A "Miscellaneous Electrical Permit" a separate distinct project number for "appliances not set REF: _____" for those items that will be absent at the time of final inspection must be obtained by the Master Electrician or Residential Appliance Installation Contractor using a new project number. This type of permit is called a "single trade miscellaneous permit". Contractors shall schedule a final inspection as usual. The existence of a miscellaneous permit will indicate to the inspector that certain electrical items will be absent. At the time the inspection is called into the Electrical Section, the contractor shall clearly indicate that there is a miscellaneous permit and that certain electrical items will be absent at the time of final inspection. All electrical other that the specific item(s) to remain absent shall be complete and in compliance with the code. Upon approval by the inspector, the electrical permit on the primary project number will be finaled. The miscellaneous permit remains active and at such time the absent items are complete, the contractor must call for inspection using the single trade miscellaneous permit number.

The single-trade project will remain active for a period of one-hundred eight (180) days. During that period, it is expected that the absent connection, equipment or fixture will be installed and inspected.

The electrical contractor or Residential Appliance Installation Contractor must remain vigilant and secure inspection as soon as the absent items have been installed.

**Important Note:**

Construction superintendents, builders, developers or others in control of construction projects must direct their MEP subcontractors to contact the Building Inspection Division, City of Houston, for instructions and assistance in establishing the appropriate utility release permits. Only licensed contractors may obtain the necessary permits.

**Plumbing Inspection Section.....832-394-8870**
**Electrical Inspection Section.....832-394-8860**
**Mechanical Inspection Section.....832-394-8850**

Approved:

Earl N. Greer, Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-M02 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| PUBLICATION: | April 21, 1995 | | | | |
| SUBJECT: | Utility Inspection Procedure | | | | |
| CODE(S): | Mechanical & Residential | | | | |
| SECTION(S) | 115 (UMC) and R109 (IRC) | | | | |

The following procedure applies only to dwellings of occupancy classification R-3.

A mechanical contractor may obtain a "utility inspection" up to 10 days prior to installing a condensing unit and/or kitchen ventilator provided the following conditions are met:

1. A temporary inspection fee has been paid in accordance with Section 118.3.2 of the Building Code. Such fee shall be paid by obtaining a separate HVAC permit in addition to the regular installation permit. The utility permit must be specified at the time of application as an "AY" permit type.

2. All other components of the HVAC system are complete and installed in accordance with code requirements.

3. Kitchen Ventilation:

   (i) Ductwork serving future ventilation equipment, whether such ductwork is installed underground, within kitchen cabinetwork or elsewhere, must be installed prior to the utility inspection, be in accordance with code and prepared to accept the proposed ventilation equipment.

   (ii) Electrical wiring serving future kitchen ventilation equipment shall be installed prior to the utility inspection, be in accordance with code and prepared to accept the proposed ventilation equipment.

| CW No: | 2012-M02 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|
| **Utility Inspection Procedure continued** | | | | | |

4. Air-Conditioning Condensing Unit:

   (i) Refrigeration piping, pipe insulation and control wiring serving future condensing unit(s) shall be installed to the point of connection to the proposed condensing unit, be in accordance with the code and prepared to accept the condensing unit(s).

   (ii) Electrical wiring serving a future condensing unit(s) shall be installed prior to the utility inspection, be in accordance with code and prepared to accept the proposed condensing unit(s).

5. Final Inspection:

   (i) Upon installation of the ventilation or condensing unit, the mechanical contractor (permittee) shall notify the Mechanical Section in a manner established and consistent with the scheduling of any other inspection and shall request a final utility inspection. The mechanical contractor shall make all necessary preparations with builders, homeowners, etc., to facilitate the inspector's access to the property at the time of inspection.

   (ii) Such utility inspection shall be secured within ten (10) working days of the date of installation of either the proposed ventilation equipment or proposed condensing unit.

6. Non Conformance Sanctions:

   (i) Mechanical contractors (permittee), upon failure to secure final inspection as indicated in item 5 above, will be subject to sanctions including but not limited to the following:

      a. The contractor's ability to obtain permits will be suspended until compliance is secured.

      b. A Municipal Court citation may be issued pursuant to Section 110.2 of the Mechanical Code.

      c. Additional use of the Utility Inspection procedure will be suspended.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-M03** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **June 3, 1988** | | | | |
| **SUBJECT:** | **Natural Gas Piping in Air Plenums and Ducts** | | | | |
| **CODE(S):** | **Mechanical** | | | | |
| **SECTION(S)** | **303** | | | | |

Fuel gas piping may be installed in accessible above-ceiling spaces used as a return air plenum provided no valves or pipe unions are located in such spaces.

Fuel gas piping shall not be run through a circulating air duct, ventilating duct, chimney or gas vent. They are allowed to run through a combustion air duct or combustion air chase or enclosure.

CROSS REFERENCE: NFPA 54, Houston Plumbing Code Section 1210.2.3.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-M04** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **March 11, 1994** | | | | |
| **SUBJECT:** | **Condensate Removal** | | | | |
| **CODE(S):** | **Residential & Mechanical** | | | | |
| **SECTION(S)** | **M1411.3 (IRC) and 312 (UMC)** | | | | |

**R-3 Occupancies**

Air conditioning units installed in closets of R-3 residential buildings may discharge condensate into a funnel drain without a trap primer, provided that: the trap is above the floor, the funnel is above the platform and is accessible when the closet door is open.

**All other occupancies**

In any occupancy, when a cooling coil or cooling unit is located in an area where the required secondary condensate drain pipe cannot be routed to a point which can readily be observed, the secondary drain pan or standing overflow outlet may be connected to the main drain line downstream of the primary drain pan provided the following requirements are met:

1. A float-switch designed to shut off the cooling unit is installed in the primary drain pan.

2. Appropriate fittings for the condensate piping in use are employed to make the secondary to primary pipe connection.

3. Adequate pipe insulation is installed on and around the secondary to primary pipe connection.

Condensate drains shall not connect to the tailpiece of a kitchen sink or to any such fixture serving a food preparation area, nor shall secondary drains be stubbed-out over any such fixture in a food preparation area.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-M05 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | February 4, 1994 | | | | |
| SUBJECT: | Fire and Radiation Dampers in Existing Fire-rated Ceiling Assemblies | | | | |
| CODE(S): | Mechanical | | | | |
| SECTION(S) | 605 | | | | |

Existing fire or radiation dampers may remain in existing fire-rated ceiling assemblies provided such fire or radiation dampers are not removed and reinstalled, or altered. Additionally, such fire or radiation dampers must exist in a condition acceptable to code regulations in effect at the time of their original installation.

Existing fire or radiation dampers in existing ceiling assemblies may be relocated within the ceiling assembly provided such relocation does not require the fire or radiation damper assembly to be disconnected from its existing connecting air duct. Additional ducts shall not be added to facilitate relocation of the fire or radiation damper assembly.

New openings in the ceiling assembly shall be protected in accordance with Section 605 of the Houston Mechanical Code.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| CW No: | 2012-M06 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | June 11, 1994 | | | | |
| SUBJECT: | Listed Type 1 Commercial Kitchen Exhaust Systems | | | | |
| CODE(S): | Mechanical | | | | |
| SECTION(S) | 507 and 508 | | | | |

Exhaust hoods tested in accordance with U.L. Standard 710, listed and labeled by an approved testing agency are acceptable for use with commercial cooking equipment if installed in accordance with manufacturer's instructions and terms of their listing.

Ancillary components of the exhaust hood must comply with the terms of listing. Where listing conditions or manufacturer's instructions do not address a specific item, the provisions of Sections 507 and 508 of the Houston Mechanical Code shall govern that item.

The components and configuration of each such system incorporating a listed hood is subject to the review and approval of the Building Official prior to its installation. Plans shall be submitted for review in accordance with Section 112 of the Houston Uniform Mechanical Code.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-M07** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 29, 1987** | | | | |
| **SUBJECT:** | **Combustion Air** | | | | |
| **CODE(S):** | **Mechanical & Residential** | | | | |
| **SECTION(S)** | **701.5 (UMC) and G2407.6.2 (IRC)** | | | | |

As an alternate to the requirements of one half of the required combustion air opening being located within the lower 12 inches, all combustion air openings in an enclosure may be located within the upper 12 inches of the enclosure, provided there is an unobstructed area equal to twice the required opening area extending to the firebox.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-M08** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 15, 1995** | | | | |
| **SUBJECT:** | **Attic Access to Gas Fired Furnaces** | | | | |
| **CODE(S):** | **Mechanical & Residential** | | | | |
| **SECTION(S)** | **904.1 (UMC) and G2406.2 (IRC)** | | | | |

An access opening to a warm-air furnace located in a ventilated attic may be placed in the ceiling of a bedroom.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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## Code Word No. M-09

## Ventilation Air Supply

### TABLE 402.1
### MINIMUM VENTILATION RATES IN BREATHING ZONE[1, 2]

| OCCUPANCY CATEGORY[4] | PEOPLE OUTDOOR Air Rate $R_P$ (cfm/person) | AREA OUTDOOR Air Rate $R_A$ (cfm/ft²) | DEFAULT OCCUPANT Density[3] (people/1000 ft²) |
|---|---|---|---|
| **CORRECTIONAL FACILITIES** | | | |
| Booking/waiting | 7.5 | 0.06 | 50 |
| Cell | 5 | 0.12 | 25 |
| Day room | 5 | 0.06 | 30 |
| Guard stations | 5 | 0.06 | 15 |
| **DRY CLEANERS / LAUNDRIES** | | | |
| Coin-operated dry cleaner | 15 | – | 20 |
| Coin-operated laundries | 7.5 | 0.06 | 20 |
| Commercial dry cleaner | 30 | 0.06 | 30 |
| Commercial laundry | 25 | – | 10 |
| Storage, pick up | 7.5 | 0.12 | 30 |
| **EDUCATIONAL FACILITIES** | | | |
| Art classroom | 10 | 0.18 | 20 |
| Classrooms (ages 5-8) | 10 | 0.12 | 25 |
| Classrooms (age 9 plus) | 10 | 0.12 | 35 |
| Computer lab | 10 | 0.12 | 25 |
| Day care (through age 4) | 10 | 0.18 | 25 |
| Day care sickroom | 10 | 0.18 | 25 |
| Lecture classroom | 7.5 | 0.06 | 65 |
| Lecture hall (fixed seats) | 7.5 | 0.06 | 150 |
| Media center[a] | 10 | 0.12 | 25 |
| Music/theater/dance | 10 | 0.06 | 35 |
| Multi-use assembly | 7.5 | 0.06 | 100 |
| Science laboratories[e] | 10 | 0.18 | 25 |
| University/college laboratories | 10 | 0.18 | 25 |
| Wood/metal shop | 10 | 0.18 | 20 |

| OCCUPANCY CATEGORY[4] | PEOPLE OUTDOOR Air Rate $R_P$ (cfm/person) | AREA OUTDOOR Air Rate $R_A$ (cfm/ft$^2$) | DEFAULT OCCUPANT Density[3] (people/1000 ft$^2$) |
|---|---|---|---|
| **FOOD AND BEVERAGE SERVICE** | | | |
| Bars, cocktail lounges | 7.5 | 0.18 | 100 |
| Cafeteria/fast food dining | 7.5 | 0.18 | 100 |
| Kitchen (cooking)[i] | 7.5 | 0.12 | 20 |
| Restaurant dining rooms | 7.5 | 0.18 | 70 |
| **GENERAL** | | | |
| Break rooms | 5 | 0.06 | 25 |
| Coffee stations | 5 | 0.06 | 20 |
| Conference/meeting | 5 | 0.06 | 50 |
| Corridors | – | 0.06 | – |
| Occupiable storage rooms for liquids or gels[b] | 5 | 0.12 | 2 |
| **HOSPITALS, NURSING AND CONVALESCENT HOMES** | | | |
| Autopsy rooms | – | 0.5 | 20 |
| Medical Procedure rooms (Dental Office) | 15 | – | 20 |
| Operating rooms | 30 | – | 20 |
| Patient rooms | 25 | – | 10 |
| Physical therapy | 15 | – | 20 |
| Recovery and ICU | 15 | – | 20 |
| **HOTELS, MOTELS, RESORTS, DORMITORIES** | | | |
| Bedroom/living room | 5 | 0.06 | 10 |
| Barracks sleeping areas | 5 | 0.06 | 20 |
| Dormitory sleeping areas | 5 | 0.06 | – |
| Gambling casinos | 7.5 | 0.16 | – |
| Laundry rooms, central | 5 | 0.12 | 10 |
| Laundry rooms with in dwelling units | 5 | 0.12 | 10 |
| Lobbies/pre-function | 7.5 | 0.06 | 30 |
| Multipurpose assembly | 5 | 0.06 | 120 |
| **OFFICE BUILDINGS** | | | |
| Breakrooms | 5 | 0.12 | 50 |
| Occupiable storage rooms for dry materials | 5 | 0.06 | 2 |
| Office space | 5 | 0.06 | 5 |
| Main entry lobbies | 5 | 0.06 | 10 |
| Reception areas | 5 | 0.06 | 30 |
| Telephone/data entry | 5 | 0.06 | 60 |

| OCCUPANCY CATEGORY[4] | PEOPLE OUTDOOR Air Rate $R_P$ (cfm/person) | AREA OUTDOOR Air Rate $R_A$ (cfm/ft$^2$) | DEFAULT OCCUPANT Density[3] (people/1000 ft$^2$) |
|---|---|---|---|
| **MISCELLANEOUS SPACES** | | | |
| Bank or bank lobbies | 7.5 | 0.06 | 15 |
| Bank vaults/safe deposit | 5 | 0.06 | 5 |
| Computer (not printing) | 5 | 0.06 | 4 |
| General manufacturing (excludes heavy industrial and processes using chemicals) | 10 | 0.18 | 7 |
| Pharmacy (prep. area) | 5 | 0.18 | 10 |
| Photo studios | 5 | 0.12 | 10 |
| Shipping/receiving[b] | 10 | 0.12 | 2 |
| Sorting, packing, light assembly | 7.5 | 0.12 | 7 |
| Telephone closets | – | 0.00 | – |
| Transportation waiting | 7.5 | 0.06 | 100 |
| Warehouses[b] | 10 | 0.06 | – |
| **PUBLIC ASSEMBLY SPACES** | | | |
| Auditorium seating area | 5 | 0.06 | 150 |
| Courtrooms | 5 | 0.06 | 70 |
| Legislative chambers | 5 | 0.06 | 50 |
| Libraries | 5 | 0.12 | 10 |
| Lobbies | 5 | 0.06 | 150 |
| Museums (children's) | 7.5 | 0.12 | 40 |
| Museums/galleries | 7.5 | 0.06 | 40 |
| Places of religious worship | 5 | 0.06 | 120 |
| **RESIDENTIAL** | | | |
| Common corridors | – | 0.06 | – |
| Dwelling unit[f, g] | 5 | 0.06 | See footnote f |
| **RETAIL** | | | |
| Sales (except as below) | 7.5 | 0. 12 | 15 |
| Barber shop | 7.5 | 0.06 | 25 |
| Beauty and nail salons[h] | 25 | 0.25 | 25 |
| Coin-operated laundries | 7.5 | 0.12 | 25 |
| Mall common areas | 7.5 | 0.06 | 40 |
| Pet shops (animal areas) | 7.5 | 0.18 | 10 |

# City of Houston
# Building Inspection
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*2009 IECC and ASHRAE 90.1-2007*

| OCCUPANCY CATEGORY[4] | PEOPLE OUTDOOR Air Rate $R_P$ (cfm/person) | AREA OUTDOOR Air Rate $R_A$ (cfm/ft$^2$) | DEFAULT OCCUPANT Density[3] (people/1000 ft$^2$) |
|---|---|---|---|
| Supermarket | 7.5 | 0.06 | 8 |
| **SPORTS AND ENTERTAINMENT** | | | |
| Bowling alley (seating) | 10 | 0.12 | 40 |
| Disco/dance floors | 20 | 0.06 | 100 |
| Gambling casinos | 7.5 | 0.18 | 120 |
| Game arcades | 7.5 | 0.18 | 20 |
| Gym, stadium (play area) | — | 0.30 | 30 |
| Health club/aerobics room | 20 | 0.06 | 40 |
| Health club/weight rooms | 20 | 0.06 | 10 |
| Sports arena (play area) | — | 0.30 | — |
| Spectator areas | 7.5 | 0.06 | 150 |
| Stages, studios[d] | 10 | 0.06 | 70 |
| Swimming (pool & deck)[c] | — | 0.48 | — |

For SI units: 1 cubic foot per minute = 0.0283 m$^3$/min, 1 square foot = 0.0929 m$^2$

**Notes:**

1 This table applies to no-smoking areas. Rates for smoking-permitted spaces must be determined using other methods.

2 Volumetric airflow rates are based on an air density of 0.075 pounds of dry air per cubic foot ($lb_{da}/ft^3$) (1.201 $kg_{da}/m^3$), which corresponds to dry air at a barometric pressure of 1 atm (101 kPa) and an air temperature of 70°F (21°C). Rates shall be permitted to be adjusted for actual density but such adjustment is not required for compliance with this chapter.

3 The default occupant density shall be used where actual occupant density is not known.

4 Where the occupancy category for a proposed space or zone is not listed, the requirements for the listed occupancy category that is most similar in terms of occupant density, activities, and building construction shall be used.

ITEM-SPECIFIC NOTES FOR TABLE 402.1

a For high school and college libraries, use values shown for Public Spaces- Library.

b Rate is capable of not being sufficient where stored materials include those having potentially harmful emissions.

c Rate does not allow for humidity control. Additional ventilation or dehumidification shall be permitted to be required to remove moisture.

d Rate does not include special exhaust for stage effects, (e.g., dry ice vapors, smoke).

e No class of air has been established for this occupancy category.

f Default occupancy for dwelling units shall be two persons for studio and one-bedroom units, with one additional person for each additional bedroom.

g Air from one residential dwelling shall not be recirculated or transferred to other space outside of that dwelling.

h Provide minimum 20% outdoor makeup air to A/C System through fixed openings.

i Where the hood is eliminated for enclosed single batch low temperature chemical dishwashers, the ventilation shall be designed by a licensed design professional to accommodate the latent and sensible heat load emitted from such appliances

Approved:

Earl N. Greer, Building Official

City of Houston
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| CW No: | 2012-P01 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| PUBLICATION: | October 15, 1996 | | | | |
| SUBJECT: | Utility Release Option | | | | |
| CODE(S): | Mechanical, Electrical & Plumbing | | | | |
| SECTION(S) | 111 (UMC), 103 (UPC), 302.1 (NEC) | | | | |

**PURPOSE:** Utility release options allow such items as dishwashers, ranges, condensing units, charcoal cooktops and other such fixtures and appliances to be absent from the completed residence during the final inspection while providing approval for the release of utility connections.

**PERMIT:** A permit for each craft involved in a particular appliance or fixture is required in order to facilitate a Utility Release Option. Permits must be purchased at the same time the regular permit is obtained or at any point during construction of the house. This permit is a separate distinct project number from the original and should indicate "for appliances not set. REF: _____" (original project number)

## PROCEDURE

### Plumbing

A "temporary gas permit" must be obtained by the licensed plumber using the project number of the primary construction project. Contractors shall schedule a final inspection as usual. The existence of a temporary gas permit will indicate to the inspector that certain plumbing items will be absent. At the time the inspection is called into the Plumbing Section, the contractor shall clearly indicate that there is a temporary gas permit and that certain plumbing items will be absent at the time of the final inspection. All plumbing other than the specific item(s) to remain absent shall be complete and in compliance with the code. Upon approval by the inspector, the temporary gas permit will allow the gas utility company to install the gas meter.

The primary project will not be fully finaled until the absent appliances or fixtures are installed and inspected by the plumbing inspector. The primary project will remain active for a period of one-hundred eighty (180) days. During that period, it is expected that the absent equipment or fixture will be installed and inspected.

The plumbing contractor must remain vigilant and secure inspection on the primary permit as soon as the absent plumbing items are completed.

| CW No: | 2012-P01 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|
| **Utility Release Option continued** | | | | | |

**Mechanical**
Air conditioning contractors who will complete the installation of the environmental air conditioning system less the condensing unit, and/or complete the installation of the air-conditioning system less the kitchen ventilation device, must follow the provisions of Code Word 2006-34.

**Electrical**
A "Miscellaneous Electrical Permit" a separate distinct project number for "appliances not set REF: _____" for those items that will be absent at the time of final inspection must be obtained by the Master Electrician or Residential Appliance Installation Contractor using a new project number. This type of permit is called a "single trade miscellaneous permit". Contractors shall schedule a final inspection as usual. The existence of a miscellaneous permit will indicate to the inspector that certain electrical items will be absent. At the time the inspection is called into the Electrical Section, the contractor shall clearly indicate that there is a miscellaneous permit and that certain electrical items will be absent at the time of final inspection. All electrical other that the specific item(s) to remain absent shall be complete and in compliance with the code. Upon approval by the inspector, the electrical permit on the primary project number will be finaled. The miscellaneous permit remains active and at such time the absent items are complete, the contractor must call for inspection using the single trade miscellaneous permit number.

The single-trade project will remain active for a period of one-hundred eight (180) days. During that period, it is expected that the absent connection, equipment or fixture will be installed and inspected.

The electrical contractor or Residential Appliance Installation Contractor must remain vigilant and secure inspection as soon as the absent items have been installed.

**Important Note:**

Construction superintendents, builders, developers or others in control of construction projects must direct their MEP subcontractors to contact the Building Inspection Division, City of Houston, for instructions and assistance in establishing the appropriate utility release permits. Only licensed contractors may obtain the necessary permits.

**Plumbing Inspection Section.....832-394-8870**
**Electrical Inspection Section.....832-394-8860**
**Mechanical Inspection Section.....832-394-8850**

Approved: _____
Earl N. Greer, Building Official

# City of Houston
## Building Inspection
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|---|---|---|---|---|---|
| **No:** | **2012-P02** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **August 13, 2013** | | | | |
| **SUBJECT:** | **Water Pressure Testing** | | | | |
| **CODE(S):** | **Residential and Plumbing** | | | | |
| **SECTION(S)** | **P2903.3 (IRC) and 608.1 (UPC)** | | | | |

The requirements for minimum water pressure are described differently in the International Residential Code and the Uniform Plumbing Code although they both set the minimum water supply pressure required for a building. Section P2903.3 of the IRC requires a static pressure of 40 psi at the building entrance while Section 608.1 of the UPC requires a residual pressure of 15 psi after accounting for pressure losses. They are considered equivalent and either may be accepted for a new single family residence.

New single family homes will be tested for both the static and residual pressures and must comply with at least one of these standards. A water pressure test of both static and residual shall be performed at the rough piping inspection, if the permanent water supply is available and connected, or at final inspection if the water supply was not available at the rough inspection. If the pressure is not in compliance with at least one of these test standards for either static or residual pressure, the developer/applicant will be required to modify the system to meet the standard, which in some cases may require that a tank and pump be installed.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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| CW No: | 2012-P03 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | April 1, 1991 | | | | |
| SUBJECT: | Size of Potable Water Piping | | | | |
| CODE(S): | Residential & Plumbing | | | | |
| SECTION(S) | P2903 (IRC) and 610 (UPC) | | | | |

| | Fixture Units | | | Total Fixtures |
|---|---|---|---|---|
| | *Allowed* | *Each Item* | = | *Units* |
| Water Closets | 2 | 3 | = | 6 |
| Bathtubs (with or without shower head over) | 2 | 2 | = | 4 |
| Shower | 1 | 2 | = | 2 |
| Lavatory | 3 | 1 | = | 3 |
| Kitchen Sink | 1 | 2 | = | 2 |
| Clothes washer | 1 | 2 | = | 2 |
| Hose Bibb | 1 | 3 | = | 3 |

**Total = 22**

Any residential remodel or addition which would exceed a total of 22 fixture units will be required to comply with the current code requirements for water sizing. (EXCEPTION: A residential remodel or addition which would total 23 or 24 fixture units may be approved by the Plumbing Division Manager.)

The City of Houston will allow the following sizing on existing residences being remodeled or added on to with an existing 5/8" meter and 3/4" building supply.

Current Code would require a 1" water meter and a 1" building supply for the same fixture total. (NOTE: The above information is based on an average 100' developed length from the meter to the farthest most outlet on the water system using Table 6-4., Pressure Range 30-45 psi)

This interpretation is only valid for additions and remodels of single family residences.

Approved:

Earl N. Greer, Building Official

# City of Houston
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|---|---|---|---|---|---|
| **CW No:** | **2012-P04** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 10, 2015** | | | | |
| **SUBJECT:** | **Sanitary Drainage (Materials)** | | | | |
| **CODE(S):** | **Plumbing** | | | | |
| **SECTION(S)** | **701.1 and 715.1** | | | | |

This Code Interpretation is to clarify that the use of SDR-26 building sanitary drainage pipe is an acceptable equivalent material to the code specified SDR-35 sanitary drainage pipe identified in Sections 701.1 and 715.1 of the Houston Adopted Plumbing Code for plastic drainage pipe sizes 8-inch and larger.

The material specifications identify that the outside diameter remains the same for both materials at nominal 15.300-inch. The nominal inside diameter of the pipe is reduced slightly from 7.920-inch for 8-inch SDR-35, to 7.754-inch for the same size SDR-26 pipe.

Additional differences noted include the color of the material as well as the requirement for use of fittings specifically designed for SDR 26 pipe. SDR-35 and SDR-26 pipe and fittings are not interchangeable. Both SDR-35 and SDR-26 material and fittings are color coordinated for proper application, installation and inspection. In areas subject to truck and automobile traffic, the SDR-26 material is slightly thicker providing a beneficial increase in strength.

Although the proposed SDR 26 material is not specifically identified in Section 701.1 and 715.1 of the Houston Adopted UPC (2006), where SDR-35 is specified for pipe sizes 8-inch or larger, there is no significant difference in the raw material used, the installation, or the required test standards associated with manufacture of the two products.

SDR 26 provides an increase in strength while the material and method is, for the purpose intended, equivalent to the minimum prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

The use of SDR-26 for pipe sizes 8-inches and larger is approved where compliance with the manufacturer's installation instructions is strictly followed.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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|---|---|---|---|---|---|
| **CW No:** | **2012-P05** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **November 1, 1993** | | | | |
| **SUBJECT:** | **Floor Drains and Indirect Waste Receptors in Walk-in Coolers and Freezers** | | | | |
| **CODE(S):** | **Plumbing & City Code of Ordinances** | | | | |
| **SECTION(S)** | **801.2.2 (UPC) and 20.21 item 17 (City Code of Ordinances)** | | | | |

Section 801.2.2 allows floor drains and indirect waste receptors in walk-in coolers and freezers to be connected to a separate drain line discharging to an outside receptor.

However, the Code of Ordinances 20.21, item 17 prohibits the direct connection of any floor drain or indirect waste receptor in walk-in coolers or freezers.

To maintain compatibility with the Health Department requirements, all floor drains and indirect waste receptors in walk-in coolers and freezers shall be indirectly connected to the sanitary sewer system.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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| | | | | | |
|---|---|---|---|---|---|
| **CW No:** | **2012-P06** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **January 4, 1996** | | | | |
| **SUBJECT:** | **Grease Interceptors** | | | | |
| **CODE(S):** | **Plumbing** | | | | |
| **SECTION(S)** | **1014 and Table 1014.3.6** | | | | |

Grease interceptors may be installed in series for one establishment provided the capacity of the first interceptor is not less than 1000 gallons and the total of all the interceptors is equal or greater than the capacity required.

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

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| CW No: | 2012-P07 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | April 16, 1987 | | | | |
| SUBJECT: | Grease Traps | | | | |
| CODE(S): | Plumbing | | | | |
| SECTION(S) | 1014.1 | | | | |

This section requires an approved type grease trap to be installed in the waste line leading from food establishments such as restaurants, cafes, lunch counters, cafeterias, bars, clubs, and hotel kitchens where large quantities of grease may be introduced into the drainage or sewage system.

This requirement shall not apply to day-care facilities, churches, employee lunch rooms and similar occupancies utilizing domestic type cooking equipment

Approved:

Earl N. Greer, Building Official

City of Houston
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| CW No: | 2012-P08 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| PUBLICATION: | September 20, 2012 | | | | |
| SUBJECT: | Community Grease Interceptor Requirements | | | | |
| CODE(S): | Plumbing | | | | |
| SECTION(S) | 1014.3.4.2 | | | | |

This interpretation applies to grease interceptors with multiple waste-streams in multi- tenant buildings such as food courts in malls, commercial strip developments, or mid- and high-rise buildings with food service tenants that have space limitations that prevent locating the grease interceptors at each business. Community grease interceptor systems are unique in that maintenance engineers are employed onsite, or available on call 24 hours a day, 7 days a week. In addition, the Community Grease Interceptor system must comply with all portions of Houston Amended UPC (2012). These installations feature compact designs with onsite building management and maintenance capabilities that can specifically address interceptor related issues.

While a separate grease interceptor is required for each individual fat, oil or grease (FOG) producing business specified facilities providing documentation from the building owner or building management, may utilize a community grease interceptor system for multiple tenant connections, subject to the following conditions.

**Community Grease Interceptor Requirements:**

**a)** The building owner provides a letter on company letterhead accepting responsibility for obtaining the City of Houston's Department of Health and Human Services (HDHHS) Class A, B or C, generator operating permits for the proposed community grease interceptor. *Ref. Class definitions in: City of Houston Code of Ordinances, Ch. 47. Water & Sewers, Art. XI. Transportation and Treatment of Certain Wastes, Section 47-417.*

**b)** The owner accepts responsibility for all interceptor maintenance and cleaning of all common grease interceptor systems regardless of lease agreements with tenants.

**c)** Interceptors are sized appropriately per code with engineering calculations for the total load of all food service tenants connected to the individual interceptor. Each individual food service tenant shall submit these calculations when the food service tenant construction documents are submitted to the City for plan review and approval.

**d)** The owner provides trained maintenance personnel 24 hours a day. 7 days a week, and

**e)** The owner agrees to make available to all food service tenants a current copy of the engineering calculations accurately describing all connected loads.

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|---|---|---|---|---|---|
| **Community Grease Interceptor Requirements** | | | | | |

In this Section, the term "business establishment" refers to the specific business that produces effluent that contain FOG's. These are generally food service establishments but may include qualified facilities or building owners complying with this interpretation.

These items must be provided for all projects affecting connected tenants as well as any proposed new connections. Projects with occupant load increases and lease expansions of existing connected tenants will require that the *Community Grease Interceptor* documentation also be attached to the construction documents when submitting to the City for plan review and permit approval.

***CITY OF HOUSTON CODE OF ORDINANCES, CH, 47. WATER & SEWERS, ART. XI.***
***Transportation and Treatment of Certain Wastes, Section 47-417.***

***Responsibilities of Agents and Employees.***

*The responsibilities created under Chapter 47 Article XI, for Class A site operators, biological pretreatment service providers, disposers, generators and transporters shall extend to the owners and other persons having possession and control of the site, facilities or equipment as well as to their officers, agents and employees having responsibilities for their operations.*

***(Ord. No. 97-196, § 4, 2-19-97; Ord. No. 07-544, § 6, 5-9-07; Ord. No. 08-1229, § 6, 12-30-08)***

***Class - A** Site Operator, means a person having ownership or control of a site where Class A waste is generated*

***Class - A** Waste, means wastes and wastewater removed from domestic septic tanks used by single or multiple residential units, schools, hotels/motels, restaurants, and similar establishments that primarily generate waste of* a *type associated with domestic/residential uses. Class A waste does not include waste removed from* a *septic tank that receives non-domestic types of commercial wastewater or receives industrial wastewater, nor does the term include grease removed from a grease trap or grit trap/lint trap* waste.

***Class - B** Waste, means oily water, FOG, grease trap waste, sewage sludge, and portable toilet waste.*

***Class - C** Waste, means any materials collected in a septic tank, grit trap, lint trap, retention pond, utility service vault or any similar device, which materials result from or are incidental to any process of industrial, manufacturing, institutional or commercial operations including, but not limited to, mobile or stationary car or truck washing, pavement washing, environmental testing facilities and commercial laundries or Laundromats. However, this term shall not include domestic septic tank waste.*

*NOTE: Each generator permit or registration certificate shall be conspicuously posted at the site for which it* is *issued. Upon request the permit or registration certificate shall be available for inspection. Sec. 47-427. Additional agents and employees responsibilities are identified in Chapter 47 of the City Code of Ordinances Article XI*

Approved:

Earl N. Greer, Building Official

City of Houston
Building Inspection

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2009 IECC and ASHRAE 90.1-2007*

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|---|---|---|---|---|---|
| **CW No:** | **2012-P09** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **March 6, 1995** | | | | |
| **SUBJECT:** | **Floor Drains for S-1, S-2, and M Occupancies** | | | | |
| **CODE(S):** | **Plumbing** | | | | |
| **SECTION(S)** | **1017.1** | | | | |

A separator and all necessary floor drains will be required in service station bays and repair garages. They will not be required in garages used only for vehicle parking or under service station pump canopies.

Approved:

Earl N. Greer, Building Official

City of Houston
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*2009 IECC and ASHRAE 90.1-2007*

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| **CW No:** | **2012-P10** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **March 9, 1995** | | | | |
| **SUBJECT:** | **Location of Downspouts** | | | | |
| **CODE(S):** | **Plumbing** | | | | |
| **SECTION(S)** | **Chapter 11** | | | | |

Gutters and downspouts accepting roof water are to be designed using Chapter 11, City of Houston Plumbing Code. All downspouts shall be connected to the gutter not to exceed 60' - 0" distance between downspout connections.

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| **CW No:** | **2012-P11** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 27, 2002** | | | | |
| **SUBJECT:** | **Storm Water Plan Review Requirement for Building Permits** | | | | |
| **CODE(S):** | **Plumbing** | | | | |
| **SECTION(S)** | **Chapter 11** | | | | |

The following types of projects on private property do not require a storm water plan review:

1. Pothole repair in existing parking lots.
2. Asphalt resurfacing (not exceeding 2" in depth) of existing parking lots.
3. Sidewalks and driveways.
4. Carports constructed over an existing pavement where the construction will not cause roof drainage to cross adjacent property lines.
5. Single family residential additions on lots with an area of 15,000 sq. ft. or less and a ratio of impervious cover to lot area of 65% or less.

Notes:

-Single family lots with common driveways (example: 8-plex townhomes) are reviewed under the IBC, and they require a storm water plan review.

-Site improvement plans need to be reviewed and approved prior to submittal of complete building plans.

Approved:

Earl N. Greer, Building Official

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| CW No: | 2012-N01 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| **PUBLICATION:** | **January 21, 2003** | | | | |
| **SUBJECT:** | **Commercial Energy Code Compliance at Certain Stages of Construction** | | | | |
| **CODE(S):** | **Commercial Energy (2009 IECC or ASHRAE 90.1-2007)** | | | | |
| **SECTION(S)** | **All** | | | | |

In order to provide consistency in requirements, the attached guidelines have been developed to determine the level of energy code compliance required for each type of project or stage of construction listed in the table.

For the purpose of this Code Word "building envelope" shall mean the structural portion of the building surrounding conditioned space that separates conditioned and unconditioned spaces.

| City of Houston Energy Code Compliance Policy | | |
|---|---|---|
| **Scope** | **Condition** | **Results** |
| **New Shell Buildings** *(applies when the occupancy is likely to have future air conditioning or heating)* i.e. retail / office / warehouse | Location & extent of building envelope is not known at present *(i.e. spec office/warehouse)* | No building envelope requirements in walls or roof at this stage. Glazing must meet the maximum U-factor and SHGC* for the specified code and construction specified: *subject to projection factor reductions. |
| | Shell is for building that will be fully conditioned *(i.e. strip centers, multi-story)* | Full building envelope compliance required, depending on applicable code. Vestibules shall not be required unless the actual space configuration is completely known. |
| **New Build Out** *(first time build-out in shell structure)* | Shell has a compliant building envelope. | Mechanical, Electrical, and Plumbing compliance only. |
| | Shell has a non-compliant building envelope | Full building envelope compliance and Mechanical, Electrical, and Plumbing compliance for the new build out. |
| **Change in Occupancy** | New occupancy uses more energy. | Apply Energy Code to altered portions. |
| | New occupancy uses the same or less energy. | No energy requirements. |
| **Historical Buildings** | | Those items that do not jeopardize the historical designation shall be required. |

| CW No: | 2012-N01 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|

**Commercial Energy Code Compliance at Certain Stages of Construction continued**

| City of Houston Energy Code Compliance Policy | | |
|---|---|---|
| **Scope** | **Condition** | **Results** |
| **Previously Unconditioned Spaces** *(adding air conditioning equipment to unconditioned spaces or buildings, or adding-on to a conditioned space inside an unconditioned space)* i.e. add-on to an office inside a warehouse. | All walls and roof/ceiling already exist in the unconditioned space | Building envelope components surrounding entire newly conditioned area shall comply. Other affected systems shall also comply. |
| | Adding a conditioned space to a previously unconditioned area with new walls or ceilings. | New and changed portions of the building envelope need to comply. Affected systems other than the building envelope components shall comply. If the new change in space configuration triggers the vestibule requirements, a vestibule shall be installed.<br><br>***Note:*** *[1]Any existing wall, ceiling or roof that changes status from "not" being part of a building envelope to becoming part of a new building envelope needs to comply.*<br>*[2] Any building envelope that previously surrounded conditioned space is not changing status and may remain as built.* |
| **Remodels / Alterations / Repairs**<br><br>***Note:*** *Windows that are completely replaced including frame and sash must comply. Note: window glazing may be replaced without complying.* | Work affects the building envelope | Building envelope or portion of the building envelope must comply if a substantial full span of the wall area "corner to corner", or ceiling "edge to edge", is exposed or altered. Affected systems other than the building envelope components shall comply. |
| | Work does not affect the building envelope | No building envelope compliance required. Other affected systems shall comply. |
| **Electrical** *(Any work involving light switches or that involve partitions resulting in changing office sizes will trigger switching requirements)* | Work does not involve changing or adding light fixtures | No requirements for electrical budget analysis. Existing fixtures may be relocated. |
| | Work involves changing or adding light fixtures | In the electrical energy budget, analyze only the area to be served by the lights that are removed. Determine the Energy Code maximum wattage for just that area and the new lights can be installed as long as they comply. |
| | Work involves obvious overall reduction in wattage *(i.e. removing lights or replacement lights are all low watt)* | Electrical energy budget analysis does not need to be completed. |

Approved:

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*2012 IBC, 2012 IRC, 2014 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

| CW No: | 2012- N02 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | October 21, 2016 | | | | |
| SUBJECT: | Appendix RB Interpretations | | | | |
| CODE(S): | Houston Adopted Residential Energy Code (2015) | | | | |
| SECTION(S) | Appendix RB | | | | |

This code word is for the purpose of clarifying 3 sections of Appendix RB from the adopted 2015 IECC Residential Provisions.

> ***RB103.4 Obstructions.*** *Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.*

This section specifically indicates that solar ready zones shall be free from obstructions. However, because the layout of future solar panels is not known or required to be shown, it is interpreted that this section is addressing more permanent obstructions that are not easily relocated such as chimneys, gas-fired equipment flues, and roof mounted equipment. Easily relocated items such plumbing and mechanical vent pipes may initially be located in the solar zone.

> ***RB103.5 Roof load documentation.*** *The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.*

As indicated in the published commentary for this section, the loads for the roof, not the loads of any future solar installed equipment, shall be documented in the plans as a reference point for future designers and solar installation contractors.

> ***RB103.7 Electrical service reserved space.*** *The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.*

This section specifically calls out a reserved space on the load side of the panel, for the purpose of backfeeding the bus bar within the cabinet. In this interpretation it is the intent of this section that all proposed installations be compliant with the provisions of the National Electrical Code (NEC). As called out in the NEC, line side connections are allowed, with the typical installation utilizing a wireway ahead of the panel. Due to this NEC approved installation method, as an alternate to providing a reserved space, and understanding that the wireway is typically installed at the same time as the solar energy system, a reserved space is not initially required.

Approved:

Earl Greer, Building Official

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| CW No: | 2012-E01 | Page: | 1 | of | 2 |
|---|---|---|---|---|---|
| PUBLICATION: | October 15, 1996 | | | | |
| SUBJECT: | Utility Release Option | | | | |
| CODE(S): | Mechanical, Electrical & Plumbing | | | | |
| SECTION(S) | 111 (UMC), 103 (UPC), 302.1 (NEC) | | | | |

**PURPOSE:** Utility release options allow such items as dishwashers, ranges, condensing units, charcoal cooktops and other such fixtures and appliances to be absent from the completed residence during the final inspection while providing approval for the release of utility connections.

**PERMIT:** A permit for each craft involved in a particular appliance or fixture is required in order to facilitate a Utility Release Option. Permits must be purchased at the same time the regular permit is obtained or at any point during construction of the house. This permit is a separate distinct project number from the original and should indicate "for appliances not set. REF: _____" (original project number)

## PROCEDURE

**Plumbing**

A "temporary gas permit" must be obtained by the licensed plumber using the project number of the primary construction project. Contractors shall schedule a final inspection as usual. The existence of a temporary gas permit will indicate to the inspector that certain plumbing items will be absent. At the time the inspection is called into the Plumbing Section, the contractor shall clearly indicate that there is a temporary gas permit and that certain plumbing items will be absent at the time of the final inspection. All plumbing other than the specific item(s) to remain absent shall be complete and in compliance with the code. Upon approval by the inspector, the temporary gas permit will allow the gas utility company to install the gas meter.

The primary project will not be fully finaled until the absent appliances or fixtures are installed and inspected by the plumbing inspector. The primary project will remain active for a period of one-hundred eighty (180) days. During that period, it is expected that the absent equipment or fixture will be installed and inspected.

The plumbing contractor must remain vigilant and secure inspection on the primary permit as soon as the absent plumbing items are completed.

| CW No: | 2012-E01 | Page: | 2 | of | 2 |
|---|---|---|---|---|---|
| **Utility Release Option continued** | | | | | |

**Mechanical**
Air conditioning contractors who will complete the installation of the environmental air conditioning system less the condensing unit, and/or complete the installation of the air-conditioning system less the kitchen ventilation device, must follow the provisions of Code Word 2006-34.

**Electrical**
A "Miscellaneous Electrical Permit" a separate distinct project number for "appliances not set REF: _____" for those items that will be absent at the time of final inspection must be obtained by the Master Electrician or Residential Appliance Installation Contractor using a new project number. This type of permit is called a "single trade miscellaneous permit". Contractors shall schedule a final inspection as usual. The existence of a miscellaneous permit will indicate to the inspector that certain electrical items will be absent. At the time the inspection is called into the Electrical Section, the contractor shall clearly indicate that there is a miscellaneous permit and that certain electrical items will be absent at the time of final inspection. All electrical other that the specific item(s) to remain absent shall be complete and in compliance with the code. Upon approval by the inspector, the electrical permit on the primary project number will be finaled. The miscellaneous permit remains active and at such time the absent items are complete, the contractor must call for inspection using the single trade miscellaneous permit number.

The single-trade project will remain active for a period of one-hundred eight (180) days. During that period, it is expected that the absent connection, equipment or fixture will be installed and inspected.

The electrical contractor or Residential Appliance Installation Contractor must remain vigilant and secure inspection as soon as the absent items have been installed.

**Important Note:**

Construction superintendents, builders, developers or others in control of construction projects must direct their MEP subcontractors to contact the Building Inspection Division, City of Houston, for instructions and assistance in establishing the appropriate utility release permits. Only licensed contractors may obtain the necessary permits.

**Plumbing Inspection Section.....832-394-8870**
**Electrical Inspection Section.....832-394-8860**
**Mechanical Inspection Section.....832-394-8850**

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-F01** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **February 28, 2000** | | | | |
| **SUBJECT:** | **Hazardous Materials Storage Canopies** | | | | |
| **CODE(S):** | **Building & Fire** | | | | |
| **SECTION(S)** | **903.2.5 (IBC) and 5004.13 (IFC)** | | | | |

An automatic fire-extinguishing system will not be required for an open canopy that meets the requirements of Section 5004.13 of the Fire Code and is used for sheltering outdoor hazardous material unless the sprinkler system is required by the Fire Code for outdoor storage. The canopy will be classified in the appropriate H occupancy classification with the notation on the permit "Canopy for Hazard Material Storage." All such structures shall be routed to the Fire Department for approval.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012-F02** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **September 20, 2012** | | | | |
| **SUBJECT:** | **Elevator Signage** | | | | |
| **CODE(S):** | **Building Code and Fire Code** | | | | |
| **SECTION(S)** | **3002.3 (IBC) and 607.2 (IFC)** | | | | |

The City of Houston Fire Code Section 607.2 requires an approved pictorial sign to be posted adjacent to each elevator call station.

The approved pictorial sign shall also contain a correctly oriented diagram showing the location and identification of the stairs on the floor in relationship to the elevator. The top of the sign shall not exceed 6 feet (1.8 m) above the floor level.

Approved:

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| CW No: | 2012-B09 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | April 4, 2012 | | | | |
| SUBJECT: | Finals on Core/Shell Permits | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 107.3.3 and 110.3.10 – Building Code | | | | |

Historically, when a shell and core permit was issued and subsequent tenant improvement permits began construction prior to the final of the shell and core, a number of challenges ensued.

Past practice was to have the entire fire sprinkler system installed prior to the core/shell finals. Prior to the tenant improvement final the ceiling was required to be installed to ensure the actuation of the sprinklers. The installation was required regardless of activity on other permits; consequently, after the sprinkler approvals were achieved, a portion of the ceiling system needed to be removed in order to complete the tenant build out. This caused delays and additional expense to the builder without achieving any additional level of fire protection.

When a tenant build out receives a permit and begins construction prior to the core and shell permit receiving all of the final inspection approvals, the following shall apply:

- The core and shell permit final approvals, including the sprinkler approval shall not apply to any portion(s) of the building that are under construction with a valid separate tenant improvement permit.
- Any work done under a tenant improvement will be inspected and approved under the permit issued for the build out and will stand independently from the core/shell approval. Multi-tenant floors shall be served by a completed core build out.
- All fire protection including fire pumps, sprinklers and alarms shall be fully functional in all areas with the exception of turning down sprinkler heads in the area under remodel.

Approved:

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| CW No: | 2012-R17 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | August 2, 2017 | | | | |
| SUBJECT: | Fire-Resistance Rating for Exterior Wall Projections | | | | |
| CODE(S): | Residential | | | | |
| SECTION(S) | T302.1(1) | | | | |

Effective September 1, 2017, the City of Houston will begin enforcing requirements for exterior wall projections in residential buildings.

The intent of Table 302.1(1), regarding projections, is that any exterior wall projection less than 3 feet to the property line must be protected as required.

**TABLE R302.1 (1)**
**EXTERIOR WALLS**

| EXTERIOR WALL ELEMENT | | MINIMUM FIRE-RESISTANCE RATING | MINIMUM FIRE SEPARATION DISTANCE |
|---|---|---|---|
| Walls | Fire-resistance rated | 1 hour—tested in accordance with ASTM E 119 or UL 263 with exposure from both sides | <~~5~~3 feet |
| | Not fire-resistance rated | 0 hours | >~~5~~3 feet |
| Projections | Fire-resistance rated | 1 hour on the face and underside | ≥2 feet to <~~5~~3 feet |
| | Not fire-resistance rated | 0 hours | ≥~~5~~3 feet |
| Openings in walls | Not allowed | N/A | < 3 feet |
| | 25% maximum of wall area | 0 hours | 3 feet |
| | Unlimited | 0 hours | 5 feet |
| Penetrations | All | Comply with Section R302.4 | < 5 feet |
| | | None required | 5 feet |

For SI: 1 foot = 304.8 min.
N/A = Not Applicable

Approved:

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| CW No: | 2012- N02 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | October 21, 2016 | | | | |
| SUBJECT: | Appendix RB Interpretations | | | | |
| CODE(S): | Houston Adopted Residential Energy Code (2015) | | | | |
| SECTION(S) | Appendix RB | | | | |

This code word is for the purpose of clarifying 3 sections of Appendix RB from the adopted 2015 IECC Residential Provisions.

> ***RB103.4 Obstructions.*** *Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.*

This section specifically indicates that solar ready zones shall be free from obstructions. However, because the layout of future solar panels is not known or required to be shown, it is interpreted that this section is addressing more permanent obstructions that are not easily relocated such as chimneys, gas-fired equipment flues, and roof mounted equipment. Easily relocated items such plumbing and mechanical vent pipes may initially be located in the solar zone.

> ***RB103.5 Roof load documentation.*** *The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.*

As indicated in the published commentary for this section, the loads for the roof, not the loads of any future solar installed equipment, shall be documented in the plans as a reference point for future designers and solar installation contractors.

> ***RB103.7 Electrical service reserved space.*** *The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.*

This section specifically calls out a reserved space on the load side of the panel, for the purpose of backfeeding the bus bar within the cabinet. In this interpretation it is the intent of this section that all proposed installations be compliant with the provisions of the National Electrical Code (NEC). As called out in the NEC, line side connections are allowed, with the typical installation utilizing a wireway ahead of the panel. Due to this NEC approved installation method, as an alternate to providing a reserved space, and understanding that the wireway is typically installed at the same time as the solar energy system, a reserved space is not initially required.

Approved:

Earl Greer, Building Official

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| CW No: | 2012- B45 | Page: | 1 | of | 1 |
|---|---|---|---|---|---|
| PUBLICATION: | January 4, 2017 | | | | |
| SUBJECT: | Interpretation- Minor Structures | | | | |
| CODE(S): | Building | | | | |
| SECTION(S) | 1704.2 | | | | |

Section 1704.2 (Special Inspections) requires that the owner or the design professional acting as the owner's agent shall employ one or more *approved agency* to perform inspections during construction on the type of work listed under section 1705.

The exception to this section states that special inspections are not required for construction of minor nature.

It is our interpretation that light weight steel/Aluminum shade structures (Canopies, awnings, patio covers, and carports) are considered structures of minor nature, and therefore do not require special inspections and the fabricators of such structures are exempt from being *approved fabricators*. These structures however, are still required to comply with all the relevant provisions of the code, and be designed by a professional engineer, licensed in the state of Texas.

Approved:

Earl N. Greer, Building Official

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| **CW No:** | **2012- B46** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **October 12, 2017** | | | | |
| **SUBJECT:** | **Electronically Locked Egress Door(s)** | | | | |
| **CODE(S):** | **Houston Adopted IBC (2012)** | | | | |
| **SECTION(S)** | **104.11 Alternate Method (Specific Approval)** | | | | |

**Definitions.** For the purpose of this Code Word, the following definitions apply:

**FAIL-SAFE.** A design condition incorporating a feature for automatically counteracting the effect of an anticipated possible source of failure; also, a design condition eliminating or mitigating a hazardous condition by compensating automatically for a failure or malfunction.

**FAIL SECURE.** Shall mean that the loss of power to the locking system will allow the doors to remain locked.

Except as specifically addressed in other sections of the Houston Construction Code, to qualify for specific approval, all electronically locked egress doors shall meet the following requirements:

1. Electronic locks that are electronically locked from the ingress side and can be mechanically unlocked from the egress side, can be fail secure from the ingress side.

   **Exception:** Stairway enclosure reentry doors required by Section 403 shall be fail-safe.

2. Electronic locks that unlock electronically from the egress side shall be fail-safe and must be unlocked by a listed direct power-interrupting device without time delay. If a motion sensor is used, a secondary in-line manual unlocking device shall be installed. If the lock is controlled by a relay, removal of power from the relay shall also cause the lock to fail-open.

   **Exception:** Egress-control devices meeting the requirement of Section 1008.1.9.7 may be of the time-delay type.

3. Doors in excess of the number required for exits may be electronically controlled, provided there is a manual unlocking device.

4. An exit door from an elevator lobby may be controlled by an electronic lock with an emergency manual unlocking device (direct in-line power interrupting switch) on the lobby side, provided the building has an automatic fire alarm system, including smoke detectors, located in the lobby and corridors or a complete sprinkler system that is interconnected to the fire alarm system.

The manual unlocking device associated with electronically controlled egress doors shall be either a manual fire alarm pull station or a push button [minimum of 1½ inches in size] located 40 inches to 48 inches vertically above the floor and within 5 feet of the secured door. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads: **PUSH/PULL TO RELEASE DOOR IN AN EMERGENCY.** When operated, the manual unlocking device shall result in direct interruption of power to the lock "independent of other electronics" and the doors shall remain unlocked for not less than 30 seconds. Activation of the building fire alarm or fire sprinkler system, where provided, shall automatically unlock the door, and the door shall remain unlocked until the *fire alarm system* has been reset. The door locking system units shall be listed in accordance with UL 294.

Approved:

Robert H. Oakes, Acting Building Official

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|---|---|---|---|---|---|
| **CW No:** | **2012-B47** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **October 30, 2017** | | | | |
| **SUBJECT:** | **Specific Approval for Temporary Modular Building(s)** | | | | |
| **CODE(S):** | **Houston Adopted Building Code (2012)** | | | | |
| **SECTION(S)** | **Sections 104.11 and 3103** | | | | |

This code interpretation establishes the plan review and permit procedure for installation of temporary modular buildings as allowed by the provisions of Section 3103 of the Houston Adopted IBC (2012). A proposed temporary modular building may be authorized for permit for a period of less than 180 days without typically required platting and site plan review, and wastewater capacity based on compliance with the following:

- The proposed temporary building is a Texas Industrialized Building (TIB) approved for use within the Houston wind speed zone. **IE:** Modular (TIB) structures designed and manufactured based on the IBC (2012) shall be designed to a minimum 130 mph wind speed as a "Risk Category 1" based on office use. Modular (TIB) structures shall be designed to a minimum 139 mph wind speed as a "Risk Category 2" for Group A (assemblies) with an occupant load of 299 or less; and for Group E (educational), and Groups E and I4 daycare facilities with an occupant load of 250 or less.
- Where the property is located in a flood plain, additional flood permits and provisions may be required.
- Stormwater may not flow across the property line to adjacent properties.
- The temporary structure shall be located on the property in compliance with the applicable provisions of Section 705 and Table 602 of the Houston Adopted IBC (2012) for the construction type and use proposed. A scalable site plan documenting appropriate dimensions to property lines and showing sufficient parking for the building size and use shall be provided.
- Exterior egress stairs and ramps shall comply with all provisions of Houston Adopted IBC (2012) including the specific provisions of Section 1026.5.
- The electrical will be provided by a temporary saw pole installed by a licensed electrical contractor or by connection to a properly permitted standby power generator complying with Section 2701.1 of the Houston Adopted IBC (2012) and the Texas mandated NEC (2017), or by authorized connection to an existing panel of an adjacent building where the panel is adequate to handle the additional electrical load.
- Water shall be provided by connection to an existing water supply or by a potable water holding tank. Sanitary services shall be provided by a holding tank or connection to an existing sanitary service. Where water or sewer holding tanks are provided, a copy of the service contract for water resupply and holding tank cleaning shall be provided with the plans when submitting to Commercial Plan Review for permit.
- Appropriate TIB plans, site plan, utility connection details and Texas engineer sealed plans for egress steps, ramps, guards and handrails as applicable shall be submitted to Commercial Plan Review.
- Permits shall be obtained, inspected, and final for all electrical, plumbing, mechanical and structural work.

**NOTE:** Plan approval is in no way an exemption or modification to any applicable provisions of the Texas Accessibility Standards (TAS). **Once approved, the permit is subject to a less than 180-day limitation. The building must be removed before any other projects at this address receive a permit.**

Approved:

Robert H. Oakes, Acting Building Official

# City of Houston
# Building Inspection
# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2020 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

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| **CW No:** | **2012- B49** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **July 6, 2021** | | | | |
| **SUBJECT:** | **Definitions Related to Administrative Processes** | | | | |
| **CODE(S):** | **2012 Houston Building and Residential Codes** | | | | |
| **SECTION(S)** | **104.1 (Interpretation and Policy)** | | | | |

Code Word B49 defines terms related to existing building alterations that is used for administrative processes associated with plan review and permitting. The intent is to clarify when a building alteration is minor and when it becomes a substantial alteration. Alterations to <50% of the building area is established as a minor alteration, and alterations to ≥50% of building area establishes a substantial alteration and establishes a plan review as a new building. This is intended to provide definitive numbers for customers and city employees. This will help all to know the expectations associated with the different scopes of work. The requirements established in this Code Word is intended for all structures. These definitions have no impact on how the Flood Department enforces its own 50% substantial alteration rule. In the event a confliction occurs, the most restrictive requirements apply.

***a.*** *Minor remodel or alteration.*
***b.*** *Substantial remodel or alteration*
***c.*** *New building.*
***d.*** *Building demolition*

***Minor remodel or alteration*** means a remodel or alteration of an existing building where the total area of the building or structure altered is less than 50% of the total building area of the existing building as defined by the Houston *Building Code*, prior to any city approved modifications.

***Substantial remodel or alteration*** means a remodel or alteration to an existing building where the total aggregate square footage of the building or structure altered is equal to or greater than 50% of the total building area of the existing building as defined by the Houston *Building Code*, prior to any city approved changes.

***New Building*** means any new or rebuilt building resulting from a building demolition or deconstruction project, or a relocated building from a different address that is used or intended for supporting or sheltering any use or occupancy defined by Chapter 3 of the *Houston Construction Code*.

***Building Demolition*** means the permanent or temporary demolition, removal, or disassembly of any structure that meets either item 1 or 2 below:

**(1)** The exterior walls and roof of a previously permitted existing building that results in the elimination, removal, or disassembly of 50% or more of the total square footage of the building area as defined by the Houston *Building Code,* or

**(2)** The elimination, removal, or disassembly of 50% or more of the total linear feet of the exterior walls of any previously permitted existing building.

Permanent or temporary demolition, removal, or disassembly of either items 1 or 2 above at any time during an alteration constitutes a building demolition and requires plan review as a new structure. Proposed construction on an existing foundation of project types identified in items 1 or 2 above, relocated buildings, and new construction on new foundations will be reviewed as a new structure or building. No vertical building additions shall be approved on existing foundations without a structural analysis of the existing foundation and supporting framing, sealed, signed, and dated by a Texas registered professional engineer indicating compliance with all appropriate provisions of the Houston Construction Code for the occupancy, type of construction and number of stories proposed.

Approved: _____
Mark Savasta, CFM, CBO, MCP, FM
Houston Building Official

**City of Houston**
**Building Inspection**

# CODE WORD 2012

INTERPRETATIONS AND APPLICATIONS OF
THE HOUSTON ADOPTED CODES
*2012 IBC, 2012 IRC, 2020 NEC, 2012 UMC, 2012 UPC,*
*2015 IECC and ASHRAE 90.1-2013*

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| **CW No:** | **2012- R18** | **Page:** | **1** | **of** | **1** |
| **PUBLICATION:** | **April 07, 1993** | | | | |
| **SUBJECT:** | **Residential Accessory Structures** | | | | |
| **CODE(S):** | **2012 Houston Building and Residential Codes** | | | | |
| **SECTION(S)** | **104.1** | | | | |

This Code Word addresses concerns and prevents occurrences of residential accessory buildings from being converted to commercial businesses (hair salon, auto repair, etc.) without having the necessary commercial/business permits or meeting appropriate commercial construction. This existing policy prohibits placement of a residential accessory structure on any private property where the proposed building is the only structure located on a lot or property.

Historically, the City of Houston has had issues with permitted standalone storage structures on residential lots. Examples include, but are not limited to a lone residential garage, storage building, shipping container, etc... Permitting these types of structure without the adjacent residence routinely results in the building being converted to a commercial business without proper permits.

This policy will address the ongoing issue associated with accessory residential structures that include, but is not limited to, the placement or new construction of a proposed residential garage or storage building that are then converted without permits to a commercial business such as a beauty salon, auto repair, or other business without appropriate permits or construction.

As an alternate to a residential accessory building, a commercial storage building may be proposed for permit and construction on a residential lot or property.

Approved:

Mark Savasta, CFM, CBO, MCP, FM
Houston Building Official