

DATE: November 20, 2007
TO: Mayor and City Council
FROM: Director of Community and Economic Development
SUBJECT: Introduction of Ordinance to Adopt the *2007 California Plumbing Code*

RECOMMENDATION

That the Council adopts the attached resolution of findings and introduces the attached ordinance adopting the *2007 California Plumbing Code*.

SUMMARY

This is a continuation of the first reading of the ordinance adopting the *2007 California Plumbing Code* and the local amendments thereto, and the resolution for the findings of fact to support the need for the local amendments. The final reading and adoption of the ordinance is scheduled for November 27, 2007. The new code becomes effective on January 1, 2008 as per California State law.

BACKGROUND

This ordinance was brought to the Council on November 6, 2007. The Council directed staff to include the former amendments prohibiting plastic pipe for all aspects of plumbing installations in the City of Hayward. That has been done and the revised ordinance is now before the Council.

DISCUSSION

Any local amendments to the State codes must be to make the codes more restrictive than the published codes. Amendments can be made only for local climatic, topographical, or geological reasons. The amendments and the findings of fact that make such amendments necessary must be submitted to the Building Standards Commission before they can become effective. The following section is a summary of the proposed City amendments.

Plumbing Code Changes: At the direction of the Council, staff has prepared amendments to this code prohibiting the use of plastic for any plumbing systems or application installed in the City of Hayward.

FISCAL IMPACT:

There is no new fiscal impact to the City of Hayward by the adoption of the new plumbing code.

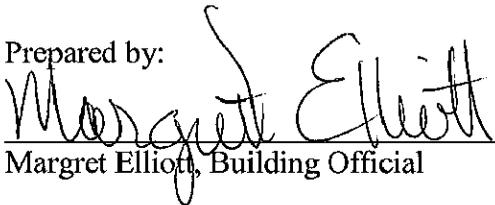
PUBLIC CONTACT:

Before the meeting of November 6, 2007, a notice of that hearing was published in the Hayward Daily Review on October 27, 2007. Handouts about the adoption of the new codes have been in the Permit Center for over a month. The Building Industry Association, the Building Construction Trades Council, the Central Labor Council of Alameda County, and the Chamber of Commerce were notified of the hearing.

SCHEDULE

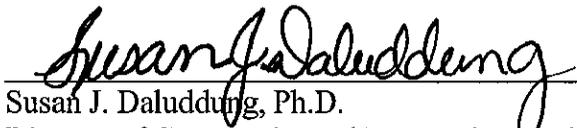
A final reading of the ordinance will be presented to Council at the meeting of November 27, 2007. The ordinance goes into effect on January 1, 2008.

Prepared by:



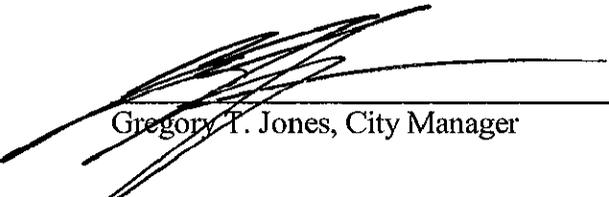
Margret Elliott, Building Official

Recommended by:



Susan J. Daluddung, Ph.D.
Director of Community and Economic Development

Approved by:



Gregory T. Jones, City Manager

Attachments: Draft Ordinance
Draft Resolution

DRAFT

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Council Member _____

me

RESOLUTION FINDING AND DETERMINING THE NEED FOR CHANGES OR MODIFICATIONS TO THE UNIFORM PLUMBING CODE, 2007 EDITION

WHEREAS, section 17958 of the State of California Health and Safety Code requires the adoption by the City of Hayward of regulations imposing the same requirements of certain uniform industry codes as specified in Health and Safety Code section 17922 and State of California Housing and Community Development Commission regulations promulgated thereunder; and

WHEREAS, Health and Safety Code section 17958.5 permits a city to make changes or modifications to the uniform industry codes as deemed reasonably necessary because of local climatic, geological or topographical conditions.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Hayward, pursuant to the requirements of Health and Safety Code section 17958.7, does hereby find and determine the need to adopt changes or modifications to the following sections of the Uniform Plumbing Code (UPC), 2007 Edition, by reason of local climatic, geological and topographical conditions:

1. ADMINISTRATIVE CHANGES. Certain administrative provisions in Appendix Chapter 1 have been amended to conform with provisions of the City Charter and other City ordinances of the City of Hayward. Such changes are not technical in nature, but are administrative only.

2. GENERAL REGULATIONS.

Sec. 301.3.1 Standards

Joints and Connections

Sec. 316.1.1 Threaded Joints

Sec. 316.1.5 Flexible Compression Joints

Sec. 316.3 Flanged Fixture Connection

In regard to lead in Section 316.3, the use of lead or asbestos plumbing fixtures is prohibited due to environmental hazards. The rest of the sections add clarifications.

3. CHAPTER 6. WATER SUPPLY AND DISTRIBUTION.

SEC. 604.11 AND SEC. 609.3.1. Installation of underground copper tubing within a building must be sleeved or double spiral wrapped to protect it from soil corrosion.

TABLE 6-4 All plastic materials are deleted from this table.

4. CHAPTER 7. SANITARY DRAINAGE. Sec. 701.1, Sec. 701.1.2.2., 701.1.3, Sec. 701.2, and Sec. 707.1. These sections delete references to plastic piping..

5. CHAPTER 9. Sec. 903.1, Sec. 903.1.2, Sec. 903.3. Amended to disallow the use of ABS or PVC as an approved material.

6. CHAPTER 10. TRAPS.

SEC. 1003.1. Amended to disallow the use of ABS or PVC as approved materials.

7. APPENDIX D. RAINWATER SYSTEMS. This amendment is required in Hayward in order to ensure that water runs away from buildings and is properly drained away from the footing of the property in order to prevent damage.

8. PART A - RAINWATER SYSTEMS. Amended regulations for rainwater systems have been adopted to protect properties from damage due to water flow.

9. FINDINGS. The aforesaid local amendments are reasonably necessary in order to lessen the threat to life, safety, and property presented by certain local climatic, geological, and topographical conditions existing in the City of Hayward. The aforesaid local amendments are enacted pursuant to the authority of section 17958.5 of the California Health and Safety Code, for the purpose of addressing the aforesaid conditions which are more specifically described as follows:

a. The Hayward fault lies within the City of Hayward and in fact, a substantial portion of the residential area of the City lies within the Alquist-Priolo Act Special Studies Zone, requiring special geologic studies prior to development. This fact increases the likelihood of seismic disturbances of substantial magnitude occurring and causing consequent damage. Such damage is often accompanied by structural fire. Because ABS and PVC plastic pipe is combustible, emits toxic gases and acids, and generates large amounts of smoke, its presence in interior water distribution systems would increase the threat to life and property in the event of a seismic disturbance. The plastic pipe joints gel was adversely affected with repeated minor tremors and seismic

disturbance. The presence of plastic pipes with joints increases the danger of leaks.

b. The travel time to a fire or other emergency within Hayward may be impeded by the following conditions:

- (1) Three major railway lines, the elevated BART line, two major freeways, and natural creeks divide the City into numerous sections, and equipment responding to emergencies face potential delays and obstruction of access in crossing these barriers.
- (2) The City of Hayward contains five major water reservoirs which, upon failure, would inundate a large portion of the City, further delaying the response to a fire or other emergency.
- (3) A growing community of single-family and multi-family dwellings presently exists on the easterly side of the proposed Highway 238, which is itself a potential physical barrier impeding response to a fire or other emergency.
- (4) The major north-south and east-west emergency response routes aside from the freeways are dependent upon bridges and grade separations. Failure of these structures would isolate a heavily populated section of the City.
- (5) In the event of a fire, toxic gases and acid emitted by plastic pipe and the smoke generated by plastic pipe represent an increased life hazard, and since most loss of life in fires is from asphyxiation, a rapid response by emergency equipment becomes more critical.

- c. All drain and waste pipes flow into the City of Hayward Waste Water Treatment Plant. Any chemical reaction between the plastic pipe and the waste flowing through it, may produce contaminants, threatening the biological process of the treatment Plant itself and in turn thereby threatening the marine life in the San Francisco Bay. Extensive use presents an unacceptable threat.
- d. High wind conditions normally exist in the hillside and shoreline areas of the City, increasing the potential for fire spread. The presence of plastic pipe increases the life hazard and, because of the potential of unregulated water heaters present for initiating fires.
- e. Prevailing temperatures in the City of Hayward periodically reaches levels that may cause excessive expansion of plastic pipe, resulting in its failure.

- f. A substantial portion of the residential area of Hayward is the natural habitat of various species of animals and rodents. Plastic pip has been known to be damaged by such animals and rodents.
- g. Prevailing soil conditions within the City of Hayward have been found to be highly acidic and corrosive to both ferrous and non-ferrous piping. Without protection, these piping systems have shown failure on an accelerated rate. A high rate of failure in unprotected under slab copper tubing has been found to occur due to electrolysis.
- h. The use of plastic piping for the pressurized potable water systems within structures constitutes a possible hazard to such structures in case of breakage, As the City of Hayward sits astride the Hayward fault which is considered a major California fault system, the likelihood of a high magnitude earthquake is predicted by geologists to be highly likely within the next thirty years. Metal piping with threaded or soldered joints has by the nature of the material considerably greater strength tho resist breakage and is considered by the Building Official to be necessary to reduce possible structural damage to buildings in the case of a major seismic event.
- i. Because of the geographic location of Hayward's waste water treatment ponds abutting one of California's larger wetlands and San Francisco Bay, the possibility of damage to these environmentally sensitive areas by introduction of lead and asbestos into the sanitary drain system is considerable. The use of materials or plumbing assemblies containing a high percentage of lead or asbestos within the plumbing system is therefore considered a hazard by the Building Official due to particular local geological and environmental conditions.

The City Council hereby takes official notice of the General Plan (and all elements thereof) of the City of Hayward, all documents on file with the City relating to the Alquist-Priolo Act Special Studies Zone.

BE IT FURTHER RESOLVED that the City Clerk is hereby directed to cause a copy of this resolution, together with the modifications or changes to the Uniform Plumbing Code, to be filed with the State of California Department of Housing and Community Development.

DRAFT

ORDINANCE NO. ____

AN ORDINANCE REPEALING ORDINANCE NO. 02-17
AND ALL AMENDMENTS THERETO, AND
ESTABLISHING A PLUMBING CODE FOR THE CITY OF
HAYWARD, REGULATING THE CONSTRUCTION,
ALTERATION, REPAIR, AND MAINTENANCE OF
PLUMBING; PROVIDING FOR THE ISSUANCE OF
PERMITS AND COLLECTION OF FEES

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11/21/07

THE CITY COUNCIL OF THE CITY OF HAYWARD DOES ORDAIN AS
FOLLOWS:

Section 1. Effective January 1, 2008, Ordinance No. 02-17, and all amendments thereto, is repealed and in substitution thereof a new Plumbing Code for the City of Hayward is hereby enacted to read as follows:

PLUMBING CODE OF THE CITY OF HAYWARD

SECTION 1.00 2007 CALIFORNIA PLUMBING CODE. ADOPTION BY REFERENCE. The *2007 California Plumbing Code*, based the *2006 Uniform Plumbing Code*, and Appendices thereto, published by the International Association of Plumbing and Mechanical Officials, as modified by the California Building Standards Commission and as further modified by the amendments, additions, and deletions set forth herein, is hereby adopted as the Plumbing Code of the City of Hayward.

A copy of such Plumbing Code is on file in the office of the City Clerk, to which reference is hereby made for further particulars. Reference is also made to the State's Matrix Adoption Tables which identify local Building Official's responsibilities to enforce certain amendments.

SECTION 2.00 AMENDMENTS, ADDITIONS AND DELETIONS TO THE UNIFORM PLUMBING CODE. Set forth below are the local amendments, additions, and deletions to the *2007 California Plumbing Code*. Chapter and section numbers used herein are those of the California Plumbing Code.

APPENDIX CHAPTER 1
ADMINISTRATION

SECTION 101.0 TITLE.

The first sentence of Section 101.0 is hereby deleted and a new sentence is substituted to read as follows:

This ordinance may be cited and shall be known as the "Plumbing Code of the City of Hayward".

Appendix Chapter 1 is hereby adopted as the administrative chapter for this code.

Reference is made to Appendix Chapter 1 Administration of 2007 California Building Code, which is based on the *2006 International Building Code* as published by the International Code Conference and amended by the City of Hayward. Where there is a conflict between administrative requirements of each code the administrative requirements of the Building Code shall prevail.

SECTION 103.3 PERMIT ISSUANCE.

SECTION 103.3.1.1 TO WHOM PERMIT MAY BE ISSUED.

A new Section 103.3.1.1 is hereby added to read as follows:

(a) Permits may only be issued to a person holding a valid State of California Plumbing Contractors license except when otherwise provided in this section.

(b) Any permit required by this code may be issued to any person to do any work regulated by this code in a single-family dwelling used exclusively for living purposes, including the usual accessory buildings and quarters in connection with such buildings, provided the applicant is the owner of such buildings, accessory buildings, or quarters.

CHAPTER 2
DEFINITIONS

SECTION 203.0 DEFINITION OF TERMS.

Section 203.0 a new definition is hereby added to read as follows:

ADMINISTRATIVE AUTHORITY shall mean the City Building Official of the City of Hayward or his or her duly authorized representative.

CHAPTER 3
GENERAL REGULATIONS

SECTION 301.1.3.1 STANDARDS.

A new sentence is hereby added to the end of this section to read as follows:

ABS, PVC and CPVC shall not be considered as approved materials. The gas piping, water piping and piping for DWV shall be of approved materials.

SECTION 316.1.1 THREADED JOINTS.

A new sentence is hereby added to the end of this section to read as follows:

Screwed fittings shall be cast iron, copper, copper alloy, malleable iron, steel, or other approved materials. Threads shall be tapped out of solid metal. ABS and PVC shall not be considered an approved material.

SECTION 316.1.5. FLEXIBLE COMPRESSION FACTORY-FABRICATED

JOINTS

This section is hereby deleted.

SECTION 316.2 SPECIAL JOINTS.

SECTION 316.2.3 PLASTIC PIPE TO OTHER MATERIALS.

A new sentence is added at the end of this section to read as follows:

When connecting plastic pipe to other types of piping, use only approved types of fittings and adapters designed for the specific transition intended. ABS AND PVC shall not be considered an approved material.

SECTION 316.3 FLANGED FIXTURE CONNECTIONS.

SECTION 316.3.1.

This section is hereby replaced with new Section 316.3.1 to read as flows:

Fixture connections between drainage pipes and water closets, floor outlet service sinks, pedestal urinals, and earthenware trap standards shall be made by means of approved brass or iron flanges caulked, soldered, solvent cemented, or screwed to the drainage pipe. The connection shall be bolted with an approved gasket, washer, or setting compound between the earthenware and the connection. The bottom of the flange shall be set on an approved firm base. ABS and PVC shall not be considered an approved material.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

SECTION 604.0 MATERIALS.

TABLE 6-4.

The following materials are hereby deleted from this table:

CVPC, PE, PE-AL-PE, PEX, PEX-AL-PEX, PVC.

SECTION 604.1.

After the first paragraph of this section two new sentences are added to read as follows:

Water pipe and fittings to supply potable water shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, galvanized steel, or other approved materials. CPVC, PB, PE, or PVC water pipe manufactured to recognized standards shall be limited to cold water irrigation systems outside a building.

SECTION 604.2

A new sentence is hereby added to the end of this section to read as follows:

Underground copper tubing installed within a building must be sleeved or double spiral wrapped with minimum 10 mil tape in an approved manner.

SECTION 609.0 INSTALLATION TESTING. UNIONS AND LOCATIONS

SECTION 609.1.1

A new section is hereby added to read as follows:

Ferrous piping shall have a protective coating of an approved type, machine applied and conforming to recognized standards. Field wrapping shall provide equivalent

protection and is restricted to those short sections and fittings necessarily stripped for threading. Zinc coating (galvanizing) shall not be deemed adequate protection for piping or fittings. Approved non-ferrous piping shall be sleeved or double spiral wrapped with minimum 10 mil tape in an approved manner.

CHAPTER 7
SANITARY DRAINAGE

SECTION 701.0 MATERIALS.

SECTION 701.1.

Section 701.1 is hereby replaced with a new section 701.1 to read as follows:

Drainage piping shall be cast iron, galvanized steel, galvanized wrought iron, copper, brass, extra strength vitrified clay pipe, or other approved materials having a smooth and uniform bore. Schedule 40 ABS, DWV, schedule 40 PVC DWV are not approved materials.

SECTION 701.1.2.2

This section is hereby deleted.

SECTION 701.1.3.

A new sentences is hereby added to the end of this section to read as follows:

ABS and PVC shall not be an approved material.

SECTION 701.2.

Section 701.2 is hereby replaced with a new section 701.2 to read as follows:

Drainage fittings shall be of cast iron, malleable iron, brass, copper, vitrified clay, stainless steel 304 and 316L (304 shall not be installed underground and shall be kept at least 6 inches aboveground), or other approved materials having a smooth interior waterway of the same diameter as the piping served and all such fittings shall conform to the type of pipe used. ABS and PVC shall not be an approved material.

SECTION 707.0 CLEANOUTS.

SECTION. 707.1.

This section is hereby amended to read as follows:

Each cleanout fitting for cast iron pipe shall consist of a cast iron or brass body, and an approved plug. Each cleanout for galvanized wrought iron, galvanized steel, copper, or brass pipe shall consist of a brass plug as specified in Table 7-6 or a standard weight brass cap, or other approved materials. Plugs shall have raised square heads or approved countersunk rectangular slots. Countersink heads shall be used where raised heads may cause a hazard. ABS and PVC shall not be considered an approved material.

CHAPTER 9
VENTS

SECTION 903 MATERIALS.

SECTION 903.1.

This section is hereby amended to read as follows:

Vent pipe shall be cast iron, galvanized steel, galvanized wrought iron, copper, brass, stainless steel 304 or 316L (stainless steel 304 pipe and fittings shall not be installed underground and shall be kept at least six inches aboveground) or other approved materials having a smooth and uniform bore. Schedule 40 ABS, DWV, schedule 40 PVC DWV are not approved materials.

SECTION 903.1.2.

This section is hereby deleted.

SECTION 903.3.

Section 903.3 is hereby amended to read as follows:

Vent fittings shall be cast iron, galvanized malleable iron or galvanized steel, copper, brass, stainless steel 304 or 316L or other approved materials, except that no galvanized malleable iron or galvanized steel, or 304 stainless steel shall be used underground and shall be kept at least six inches above ground. Stainless steel 304 pipe and fittings shall not be installed underground and shall be kept at least 6 inches aboveground. ABS and PVC shall not be an approved material.

CHAPTER 10
TRAPS

SECTION 1003.1 TRAPS - DESCRIBED.

SECTION 1003.1.

Section 1003.1 is hereby amended to read as follows:

Each trap, except one for an interceptor or similar device, shall be self-cleaning. Traps for bathtubs, showers, lavatories, sinks, laundry tubs, floor drains, hoppers, urinals, drinking fountains, dental units, and similar fixtures shall be of standard design and weight and shall be of cast brass, cast iron, or other approved material. An exposed and readily accessible drawn brass tubing trap, not less than 17 B & S gauge (0.45") (1.1-mm) may be used on fixtures discharging domestic sewage but shall exclude urinals. Each trap shall have the manufacturer's name stamped legibly in the metal of the trap and each tubing trap shall have the gauge of the tubing in addition to the manufacturer's name. Every trap shall have a smooth and uniform interior waterway.

APPENDIX D
SIZING STORMWATER DRAINAGE SYSTEM

D1 ROOF DRAINAGE.

This section is hereby deleted and replaces with new Section D1 to read as follows:

When required by the Building Code, provide drainage from roof areas, courts and courtyards, vent shafts, light wells, and paved or covered areas to collect storm water and deliver to an approved point of disposal which is not in conflict with other ordinances or regulations. This appendix provides a design guide for sizing of drainage systems.

The water from the roofs of all buildings shall be conveyed from the roof through downspouts to one or more points where the discharge of water will neither damage structures nor cause soil erosion; and where the grade is such that water may drain under the footings of the building. Drain tile or other approved conduits shall be installed to prevent such damage.

All such water which could flow by gravity over the public right of way or onto adjacent property shall be carried in approved conduits sufficient in size to convey accumulated water, through the curb to the street gutter, as required by City Standard Detail SD-118 or, when required, shall be connected to a storm sewer.

Conduits under the sidewalk, when conducted through the curb, shall be steel or cast iron piping, or other approved material. If grade conditions do not permit gravity flow of such water to the street gutter, an approved storm water disposal system shall be installed.

EXCEPTION: Conveying of water to an approved disposal area shall not be required in lots where the average natural ground gradient is less than six percent unless otherwise determined by the Administrative Authority to be necessary to protect the property and structures.

Casual water from uncovered paved area shall drain or discharge through the curb face as detailed in City Standard Detail SD-118 into a storm drain or as otherwise approved by the City Engineer, and shall in no case drain over public walks and right of way. For the purpose of this section, casual water shall include all water used to clean vehicles or equipment. Casual water shall not include any water containing detergents, soaps, grease, or any waters discharging from sand and grease interceptors connected to steam cleaners, etc.

D 1.1 ROOF DRAINAGE-ALL OCCUPANCY GROUPS

A new section D 1.1 is hereby added to read as follows:

a .1 Rainwater piping placed within interior of a building or run within a vent or shaft shall be of cast iron, galvanized steel, wrought iron, brass, copper, or other approved materials.

a.1.1 Rainwater piping located on the exterior building shall be not less than 26 gauge galvanized sheet metal or other approved material.

a.1.2 Rainwater piping located underground within a building shall be of service weight cast iron soil pipe, Type DWV copper tube, or other approved materials.

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the 20th day of November, 2007, by Council Member__.

ADOPTED at a regular meeting of the City Council of the City of Hayward held the ____ day of _____, by the following votes of members of said City Council.

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

APPROVED: _____
Mayor of the City of Hayward

DATE: _____

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward