
Council Meeting Date: June 7, 2004

Agenda Item: 7(a)

**CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON**

| | |
|----------------------|--|
| AGENDA TITLE: | Discussion of Amendments to the State Building Codes Including the International Fire Code, International Building and Residential Codes, and the Optional International Property Maintenance Code |
| DEPARTMENT: | Planning and Development Services |
| PRESENTED BY: | Tim Stewart, Director PADS Bridget Smith, Building Official |

PROBLEM/ISSUE STATEMENT:

Council adopted the State Mandated Building Code on May 24th, which includes the following codes:

International Building Code (IBC)
International Residential Code (IRC)
International Mechanical Code (IMC)
International Fuel Gas Code (IFGC)
International Fire Code (IFC)
Uniform Plumbing Code (UPC)
Washington State Energy Code

Local jurisdictions have the authority to amend these codes to address local needs and conditions. Staff is proposing several amendments to the IFC, IBC and IRC as well as providing discussion on an optional International Property Maintenance Code for Council consideration. The state mandated Codes become effective on July 1, 2004. It is our intention to have the proposed amendments to these codes also effective on this date.

FINANCIAL IMPACT:

The financial impact of adopting the proposed local amendments is estimated to be revenue neutral for the City of Shoreline. The financial impact on our customers is varied. In some cases the thresholds for requiring additional fire protection are lowered therefore increasing costs, however in some areas the thresholds are being increased whereby costs are decreased.

RECOMMENDATION

No action is required. Staff is providing a review of the following for discussion and Council input: local amendments to the International Fire Code; local amendments to the International Building and Residential Codes; and future consideration of the optional International Property Maintenance Code for potential adoption.

Approved By: City Manager  City Attorney 

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INTRODUCTION

The International Code Council (ICC) was established with the goal of developing one comprehensive and coordinated set of model construction codes for the U.S. and beyond. The Washington State Building Code Council, after an involved public process, reviewed the International Codes with amendments, the Uniform Plumbing Code, as well as a State Energy Code. This set of Codes has been adopted by the State through Substitute House Bill 1734. Council adopted this set of codes on May 24th which included the Uniform Plumbing Code allowing the City of Shoreline to provide plumbing permit services to our customers. RCW 19.27.040 authorizes cities and counties to amend the Codes and adopt appendices for local conditions. Shoreline Fire Department and city staff recommend several amendments and the adoption of applicable appendices.

BACKGROUND

At the May 24, 2004 meeting, Council adopted the State Building Code. At that time staff informed the Council that following this adoption of the codes, the City would then have the opportunity to amend the Codes and adopt selected appendices. The purpose of the workshop is to introduce the proposed amendments to the IFC, IBC and IRC to the Council for discussion. In addition, staff would like to introduce the Council to the International Property Management Code, but suggests that this Code not be adopted without further review.

Background specific to the International Fire Code (IFC): For many years prior to the incorporation of the City of Shoreline, King County Fire District #4, now the Shoreline Fire Department, worked in conjunction with King County in administering the Uniform Fire Code and local requirements. Back in 1995 when the City incorporated, the Fire Department and City adopted Title 18 of the Shoreline Municipal Code which adopted Title 17 of the King County Code by reference. Over the years the City of Shoreline adopted additional ordinances and policies that retained King County code references. The Fire Department still utilizes these regulations that are not included in the City's Municipal Code. The Shoreline Fire Department and city staff recommend several amendments to the IFC and the adoption of applicable appendices. These amendments and appendices are an attempt to maintain consistency and consolidate all of the practices in use today within Shoreline.

This workshop is the first time the Council has discussed amendments to the newly adopted IFC, IBC and IRC. The purpose of this report is to:

- Outline the process used to develop the local amendments to the IFC, IBC and IRC;
- Provide a matrix that will briefly explain the proposed amendments;
- Highlight those amendments that city staff are proposing to study further; and
- Introduce the Council to the International Property Maintenance Code (IMPC) for consideration.

DISCUSSION

THE PROCESS

The Zone 1 Fire Marshal Group which includes the Shoreline Fire Department as well as eight (8) other local Fire Departments*, has met numerous times over the past six (6) months in preparation for the adoption of the International Fire Code. One of the purposes for these meetings was to determine if there should be local amendments made to the IFC. The Zone 1 Fire Marshals' goal in this effort has been to provide the citizens they serve with an effective and consistent level of safety, to provide the business community an equal and cohesive set of regulations throughout the region and to maintain the same effective level of code compliance already established in each city and district in Zone 1.

In addition to meeting as a group to draft the local amendments to the IFC, the Zone 1 Fire Marshals Group asked the Master Builders Association (MBA) to comment and provide input on the proposed local amendments. Two such meetings have occurred and the Zone 1 Fire Marshals Group and the MBA are continuing to collaborate.

*Zone 1 fire district includes: Bellevue, Bothell, Eastside Fire and Rescue, Kirkland, Mercer Island, Redmond, Shoreline, Woodinville, and Renton.

ANALYSIS

The Matrix

A matrix containing the following information is located in Attachment A:

- The amendment # for reference;
- Identifies the section of the IFC proposed for amendment;
- Origin of the proposed amendment language;
- Denotes if the amendment is sponsored by the Zone 1 Fire Marshals Group or is a local amendment specific to Shoreline;
- Identifies the anticipated level of regulatory impact or cost on the property owner; Brief descriptions of each amendment and appendix; and
- Contains a recommendation by city staff for each amendment.

The majority of the amendments and appendices proposed for adoption require little explanation and do not represent a substantial change from how the City has been regulated in the past. Those amendments are denoted as:

- Status Quo: Adopting the local amendment may increase the requirements found in the IFC as amended by the State; but the requirements are not increasing from the Uniform Fire Code (UFC) and other associated regulations currently in place; or
- None: Adopting the local amendment will not increase the requirements from those in the IFC as amended by the State or the UFC and other associated regulations currently in place; or
- Minimal Impact: Opinion of the Shoreline Fire Department that adoption of the amendment would represent only a minor change; or
- Less Restrictive: Adoption of the proposed amendment provides an alternate or reduces the impact from the UFC and other associated regulations currently in place.

- Administrative: Change would be only of an administrative nature.

There are a few amendments and one appendix proposed for adoption that will require additional analysis and coordination between the City and the Fire Department to successfully implement. Staff has highlighted those proposals and provided additional analysis for Council's consideration below:

Amendments to the International Fire Code (IFC) Recommended for Further Study

Amendment #3: Section 104.11.3

The administrative chapter is being reviewed for consistency with the interlocal agreement with the fire department.

Amendment #7: Section 503

Section 503 is regarding fire apparatus access roads. Additional information on access roads is found in Appendix D and is described below. City staff and the fire department are working together to create consistent and consolidated engineering, fire and development standards for access roads.

Amendment #12: Section 901.4.5

There are four (4) scenarios that bring up the question of whether a building should be brought up to current code. They are alterations, repairs, additions, and change of use. The City and Fire Department are working together to provide consistent criteria regarding when an upgrade to current code is triggered.

Amendment #16: Section 903.2.14.1

This amendment is regarding the square footage thresholds for requiring sprinklers to be installed in newly constructed buildings. City staff recommends this amendment be studied further to assure that the fire code for Shoreline is consistent with the building code and our neighboring jurisdictions.

Amendment #19: Section 903.2.14.4

City staff and the fire department are working together to create fire suppression standards to address new and innovative types of development such as cottage housing.

Appendices Recommended for Adoption

There are several Appendices that are useful in providing supplemental information. All Zone 1 Fire Departments are adopting appendices with local amendments or equivalent documents.

- Appendix B - Fire Flow Calculation Methods of Buildings
- Appendix C - Locations and Spacing of Fire Hydrants
- Appendix E – Hazard Categories
- Appendix F – Hazard Ranking

In addition, the Shoreline Fire Department is also proposing several amendments to the Appendices that are recommended for adoption. These amendments customize the

Appendices for use in Shoreline. The anticipated impacts of adopting these amendments to the Appendices range from none to minimal.

Appendix Recommended for Further Study

City staff recommends that additional analysis occur before the adoption of Appendix D and associated amendments to ensure consistency with other regulatory tools such as the Development Code.

Amendment #34: Adoption of Appendix D Fire Apparatus Access Roads

City staff and the Fire Department are working together to create consistent and consolidated engineering, fire and development standards for access roads. The goal will be to develop a single set of standards.

Plan for Further Study Items

Staff will continue to work with the fire department to complete the analysis necessary to provide the Council with recommendations on each of the items proposed for further study prior to the proposed Council adoption on June 28th.

Amendments to the International Building Code (IBC) and the International Residential Code (IRC)

Amendment #s 37-40

There are only two amendments proposed to the IBC and the IRC. The City currently exempts platforms no more than 30 inches above grade and some types of re-roofing (where there are no structural elements being revised or replaced, including the roof diaphragm) from provisions of the Building Code. However, the platforms and re-roofing work we exempted in the past do not qualify for an exemption in the IBC and IRC. Staff recommends that the IBC and IRC be amended to “reinstate” these exemptions to provide consistency for our customers.

- Exempt platforms that are no more than 30” above grade.
- When we adopted King County’s Title 16, King County did not regulate re-roofing. In the ‘Exempt from Permits’ section of the IBC and IRC, we have added this exemption and added the parameters of “...where there are no structural elements being revised or replaced, including the roof diaphragm”, for clarification.

THE INTERNATIONAL PROPERTY MAINTENANCE CODE (IMPC)

The City of Shoreline has used the Housing Code to ensure property maintenance in the past. The new optional International Property Maintenance Code would provide a clear standard for property maintenance.

Scope. The provisions of this code apply to all existing residential and nonresidential structures and all existing premises and constitute minimum requirements and standards for premises, structures, equipment and facilities for light, ventilation, space, heating, sanitation, protection from the elements, life safety, safety from fire and other hazards, and for safe and sanitary maintenance; the responsibility of owners, operators and

occupants; the occupancy of existing structures and premises, and for administration, enforcement and penalties.

Intent. The intent of this code is to ensure the public health, safety and welfare of occupants through continued maintenance of structures and premises. The IMPC requires existing structures and premises that do not comply to be altered or repaired to provide a minimum level of health and safety as required. The IMPC requires that repairs, alterations, additions to and change of occupancy in existing buildings to comply with the International Existing Building Code. *Note: The City has not adopted the optional International Existing Building Code.*

The benefits of adopting the IPMC are as follows:

- The IMPC helps maintain quality neighborhoods.
- The IMPC provides tools to deal with dilapidated property.
- The IMPC helps maintain housing stock.
- A recommended local amendment will provide a tool to address residences with an extensive level of criminal activity.

Sections that may be seen as intrusive to citizens and can be deleted are as follows:

- Weed and plant growth maintenance.
- Requiring insect screens.

In light of the Council selecting the enhancement of Code Enforcement Services as a goal for the upcoming year, it may be appropriate to adopt the International Property Maintenance Code. Property maintenance as defined in the IPMC represents a greatly enhanced level of service than what the City is currently providing and therefore would require additional planning and coordination to determine if the City would like to implement all or selected portions of this Code. In addition, enforcement of the IPMC may well require added staff and financial resources not currently available. Therefore, it is recommended that this Code not yet be adopted and instruct staff to further study the implementation of this service similar to the process used for implementing plumbing permit services.

RECOMMENDATION

No action is required. Staff is providing a review of the following for discussion and Council input: local amendments to the International Fire Code; local amendments to the International Building and Residential Codes; and future consideration of the optional International Property Maintenance Code for initial adoption.

ATTACHMENTS

- Attachment A - Amendment Matrix**
- Attachment B - Proposed Amendments in Legislative Format**

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Proposed IFC, IBC IRC and IPMC Amendments Matrix

| Amendment # | Section | Origin | Sponsor | Impact | Description | City Staff Recommendation |
|---|------------------------------|--------|-------------------------|------------|---|---------------------------|
| International Fire Code Amendments | | | | | | |
| 1 | 102 | New | Zone 1 Fire Marshals | None | The IFC references many standards published by various authorities throughout the code. These referenced standards also refer to additional standards. The proposed addition of text gives the fire code official the ability to determine the applicability of these references. | Approve |
| 2 | 104.10.1 and 104.11.2 | UFC | Zone 1 Fire Marshals | Status quo | Covers police assistance at the request of the fire code official and obstruction of fire investigations. The proposed addition of text carries current language from UFC into the IFC where the IFC is silent. | Approve |
| 3 | 104.11.3 | New | City of Shoreline Staff | Status quo | Amendment to Chapter 1 'Administration' requires further study to provide consistency with the interlocal agreement. | Further Study |
| 4 | 308.3.1.2.1 thru 308.3.1.2.6 | UFC | Zone 1 Fire Marshals | Status quo | Covers safe handling of flaming food and beverage preparation. The proposed addition of text carries current language from UFC into the IFC where the IFC is silent. | Approve |
| 5 | 308.3.7 | UFC | Zone 1 Fire Marshals | Status quo | Allows open flames to be used in Group A occupancies as determined by the fire code official, as in Section 308.3.1.2. | Approve |
| 6 | 314.4 | | Zone 1 Fire Marshals | Status quo | Adds "fueled equipment" to the list of vehicles and conditions under which they may be safely displayed indoors. | Approve |
| 7 | 503 | UFC | Shoreline Fire District | Status quo | Amendments regarding Fire Apparatus Access Roads. City staff is continuing to work with the fire department to create consistency between fire, engineering and development standards for access roads. | Approve |
| 8 | 508.3 | UFC | Shoreline Fire District | Status quo | The IFC requires each AHJ to state their method for determining fire flow. Appendix B should be inserted, as it is the same table currently used for determining fire flow in Shoreline. | Further Study |
| 9 | 508.5.1 | UFC | Zone 1 Fire Marshals | Status quo | Although this section is similar to language in the UFC, it proposes greater distances between buildings and fire hydrants than currently in use. The proposed changes in distance will maintain current requirements. | Approve |
| 10 | 602 | UFC | Zone 1 Fire Marshals | Status quo | This addition provides a definition of a power tap which is frequently cited during inspections. The proposed definition carries current language from UFC into the IFC where the IFC is silent. | Approve |
| 11 | 803.1.4 | UFC | Zone 1 Fire Marshals | Status quo | This carry over section covers furnishings and decorations in atriums. Control of fuel loading in these areas is critical to the safe evacuation of people in the event of a fire. The proposed new section carries current language from UFC into the IFC where the IFC is silent. | Approve |

Proposed IFC, IBC IRC and IPMC Amendments Matrix

| Amendment # | Section | Origin | Sponsor | Impact | Description | City Staff Recommendation |
|-------------|------------|------------------|-------------------------|---------------------------------|---|---------------------------|
| 12 | 901.4.5 | Title 17 and SMC | Zone 1 Fire Marshals | Status quo and more restrictive | Amendments are regarding when an upgrade to current code is required for alterations, additions, repairs and changes of use. | Further Study |
| 13 | 901.6.1 | New | Zone 1 Fire Marshals | Administrative | This temporary provision provides one year for the testing of all NFPA 13 and 13R sprinkler systems to NFPA 25 standards. Without this provision all systems would be in violation of IFC Section 901.6.1 on July 1st 2004 | Approve |
| 14 | 901.7 | UFC | Zone 1 Fire Marshals | Status quo | Requires notification of the fire department of any fire system that is out of service. The deletion of the reference to only required systems maintains continuity with current UFC and NFPA standards. | Approve |
| 15 | 903.2 | UFC | Zone 1 Fire Marshals | Status quo | Deletes a new exception which allowed sprinklers to be omitted in telecommunications rooms. This specific language for telecommunication rooms is not needed as NFPA 13 already has language and conditions in which specialty rooms may have sprinklers omitted. NFPA 13 provides very clear conditions for deletion of sprinklers in such situations. | Approve |
| 16 | 903.2.14.1 | New | Zone 1 Fire Marshals | Minimal | Amendment regarding fire sprinkling thresholds for newly constructed buildings requires further study to achieve consistency with IBC and neighboring jurisdictions. | Further Study |
| 17 | 903.2.14.2 | SMC and Title 17 | Shoreline Fire District | Status quo | The 2000 gpm fire flow/sprinkler threshold is existing SMC and Title 17 language consolidated. | Approve |
| 18 | 903.2.14.3 | SMC and Title 17 | Shoreline Fire District | Status quo | The change in this provision updates current local language including Fire Department Policy. | Approve |
| 19 | 903.2.14.4 | New | Shoreline Fire District | Minimal | Amendment proposes to create fire suppression standards addressing new and innovative types of housing such as cottage housing. Currently under review to insure consistency with development, engineering and fire standards. | Further Study |
| 20 | 903.4.2 | New | Zone 1 Fire Marshals | Status quo | Covers audible and visible notification and sprinkler systems. The proposed additional language eliminates conflict with NFPA 72 and State ADA requirements. | Approve |
| 21 | 903.4.3 | New | Zone 1 Fire Marshals | Minimal | Covers floor sprinkler control valves on each floor of a multi story building. This permits isolating a floor for service without shutting down an entire buildings sprinkler system. | Approve |

Proposed IFC, IBC IRC and IPMC Amendments Matrix

| Amendment # | Section | Origin | Sponsor | Impact | Description | City Staff Recommendation |
|-------------|-------------------|------------------|-------------------------|------------|--|---------------------------|
| 22 | 904.11 | Title 17 | Shoreline Fire District | Minimal | This temporary provision provides one year to replace non-conforming commercial cooking suppression systems with a compliant UL300 system. Older cooking suppression systems were designed to be used with lard. It has been proven that the older systems will often not extinguish or even control a vegetable oil fire. King County and Seattle have already mandated that all non-compliant systems be replaced by January 2003. Although the Shoreline Municipal Code referenced King County Title 17, the Fire Department has not yet implemented a time frame for conversion. This provision will require all systems that were installed prior to 1994 that have not been upgraded since be replaced by July 1st, 2005. Exception: The use of existing fire suppressions systems may be continued where lard is being used and no vegetable oils are used. | Approve |
| 23 | 905.3.7 and 905.8 | UFC | Zone 1 Fire Marshals | Status quo | Covers standpipes systems in high rise buildings and other locations not subject to freezing. The proposed new section and changes carries current language from UFC and other standards into the IFC where the IFC is silent. | Approve |
| 24 | 906.1 | UFC | Zone 1 Fire Marshals | Status quo | Covers portable fire extinguishers and occupancies in which they are required. The proposed changes maintain current requirements for fire extinguisher placement. | Approve |
| 25 | 907.2.24 | SMC and Title 17 | Shoreline Fire District | Status quo | This section contains existing SMC language that has been consolidated and codifies it into a new section number. | Approve |
| 26 | 1404.5 | UFC | Zone 1 Fire Marshals | Status quo | Covers the inclusion of building construction sites where a fire watch may be required by the fire code official. This change is concurrent with present code. | Approve |
| 27 | 2703.9.10 | New | Zone 1 Fire Marshals | None | Inserts language requiring the storage of hazardous materials to comply with manufactures limitations and restrictions. | Approve |
| 28 | 3204.3.1.1 | IFC | Shoreline Fire District | Status quo | Establishes limits as required by adoption of the IFC. | Approve |
| 29 | 3404.2.9.5.1 | IFC | Shoreline Fire District | Status quo | Establishes limits as required by adoption of the IFC. | Approve |
| 30 | 3406.2.4.4 | IFC | Shoreline Fire District | Status quo | Establishes limits as required by adoption of the IFC. | Approve |
| 31 | 3804.2 | IFC | Shoreline Fire District | Status quo | Establishes limits as required by adoption of the IFC. | Approve |
| 32 | Appendix B | UFC | Shoreline Fire District | Minimal | Covers fire flow calculation methods of buildings. The proposed changes maintain consistency with existing practices. | Approve |

Proposed IFC, IBC IRC and IPMC Amendments Matrix

| Amendment # | Section | Origin | Sponsor | Impact | Description | City Staff Recommendation |
|-------------|--------------|--------|-------------------------|------------------|--|---------------------------|
| 32a | B104.1 | " | " | Status quo | A clarification and will not change current practice. The clarification uses basements and attached garages in the fire flow calculations. | Approve |
| 32b | B104.2 | " | " | Less restrictive | This amendment is less restrictive than the current code and more restrictive than the IFC. The current requirements did not recognize fire walls when calculating the area of a building to see if sprinklers are required. Now a 4-hour rated fire wall will be recognized so the building may not need sprinklers. | Approve |
| 32c | Table B105.1 | " | " | Status quo | This amendment carries current requirements forward. The UFC did not allow any reductions regarding fire flow for single family residences. The IFC allows a 25% reduction for all single family residences. | Approve |
| 32d | B105.1 | " | " | Less restrictive | This amendment is less restrictive than current code. The UFC did not allow any reductions regarding fire flow for single family residences. The IFC has an exception: if an upgraded system is used a 50% reduction can be taken. The Shoreline Fire Department recommends that if an upgraded system is used, a 30% reduction can be taken. | Approve |
| 32e | B105.2 | " | " | Status quo | This amendment carries current requirements forward, regarding reductions for fire flow of commercial buildings, per a current fire department policy. | Approve |
| 33 | Appendix C | UFC | Shoreline Fire District | Minimal | Covers the locations and spacing of fire hydrants. The proposed changes maintain consistency with existing practices. | Approve |
| 33a | Table C105.1 | " | " | | Number and Distribution of Fire Hydrants'. This amendment carries current requirements forward. The maximum spacing between hydrants is 300' for commercial buildings, which is more restrictive than the IFC Table. If the fire flow is less than 3,500gpm, the IFC allows a greater distance between hydrants. | Approve |
| 33b | C105.1 | " | " | | Hydrant Spacing. This amendment carries current requirements forward. An exception is created for one and two family dwellings to allow more distance to fire hydrants than commercial buildings. If the fire flow is 3,500-4,000gpm or more, the amendment is less restrictive than the IFC table. If there is less than 3,500gpm fire flow, the amendment is more restrictive. The amendment to the footnotes is consistent with the information in the amended table. | Approve |
| 34 | Appendix D | UFC | Shoreline Fire District | Minimal | Amendment regarding fire apparatus access roads requires further study to provide consistency between engineering, fire and development standards. | Further Study |
| 35 | Appendix E | New | Shoreline Fire District | Administrative | Provides information, explanations and examples to illustrate and clarify the hazard categories contained in Chapter 27, Hazardous materials. Adopt as written. | Approve |

Proposed IFC, IBC IRC and IPMC Amendments Matrix

| Amendment # | Section | Origin | Sponsor | Impact | Description | City Staff Recommendation |
|--|--------------------------|--------|-------------------------|----------------|---|---------------------------|
| 36 | Appendix F | New | Shoreline Fire District | Administrative | References NFPA 704 as method of ranking hazards. Adopt as written. | Approve |
| International Building Code Amendments | | | | | | |
| 37 | | UBC | City of Shoreline Staff | Status Quo | Exempt platforms that are no more than 30" above grade. | Approve |
| 38 | | UBC | City of Shoreline Staff | Status Quo | Exempt re-roofing where there are no structural elements being revised or replaced, including the roof diaphragm". | Approve |
| International Residential Code Amendments | | | | | | |
| 39 | | UBC | City of Shoreline Staff | Status Quo | Exempt platforms that are no more than 30" above grade. | Approve |
| 40 | | UBC | City of Shoreline Staff | Status Quo | Exempt reroofing where there are no structural elements being revised or replaced, including the roof diaphragm". | Approve |
| International Codes Blanket Amendments | | | | | | |
| 41 | IBC, IRC, IMC, IFGC, IFC | New | City of Shoreline Staff | None | The International Codes do not take into account processes that are specific to the City of Shoreline. The City of Shoreline has not adopted the International Existing Building Code which is referenced in many of the other International Codes. Staff proposes the following amendment: Whenever the words "International Existing Building Code" are used, it shall mean "International Building Code". The building code has a chapter on existing buildings. | Approve |
| 42 | IBC, IRC, IMC, IFGC, IFC | New | City of Shoreline Staff | None | The International Codes do not take into account processes that are specific to the City of Shoreline. Staff proposes the following amendment: Whenever the words "International Electrical Code" are used, it shall mean "National Electrical Code". | Approve |
| International Property Management Code | | | | | | |
| NA | New Code | New | City of Shoreline Staff | Extent Unknown | Adoption of the International Property Management Code (IPMC) | Further Study |

CHAPTER 1 ADMINISTRATION

SECTION 102 APPLICABILITY

102.6 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 45. Such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference as determined or modified by the fire code official. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

SECTION 104 GENERAL AUTHORITY AND RESPONSIBILITIES

104.10.1 Assistance from other agencies. Police and other enforcement agencies shall have authority to render necessary assistance in the investigation of fires or the enforcement of this code when requested to do so by the fire code official.

104.11.2 Obstructing operations. No person shall obstruct the operations of the fire department in connection with extinguishment, or control, or investigation of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

104.11.3 (FURTHER STUDY). Language will clarify authority and responsibility of the fire code

CHAPTER 3 GENERAL PRECAUTIONS AGAINST FIRE

SECTION 308 OPEN FLAMES

308.3.1.2 Flaming food and beverage preparation

308.3.1.2.1 General. The preparation of flaming foods or beverages in places of assembly and drinking or dining establishments shall be in accordance with Section 308.3.1.2.

308.3.1.2.2 Dispensing. Flammable or combustible liquids used in the preparation of flaming foods or beverages shall be dispensed from one of the following:

1. A 1-ounce (29.6 ml) container or
2. A container not exceeding 1 quart (946.5 ml) capacity with controlled-pouring device that will limit the flow to a 1 ounce (29.6 ml) serving.

308.3.1.2.3 Containers not in use. Containers shall be secured to prevent spillage when not in use.

308.3.1.2.4 Serving of flaming food. The serving of flaming foods or beverages shall be done in a safe manner and shall not create high flames. The pouring, ladling or spooning of liquids is restricted to a maximum height of 8 inches (203 mm) above the receiving receptacle.

308.3.1.2.5 Location. Flaming foods or beverages shall be prepared only in the immediate vicinity of the table being serviced. They shall not be transported or carried while burning.

308.3.1.2.6 Fire protection. The person preparing the flaming foods or beverages shall have a wet cloth immediately available for use in smothering the flames in the event of an emergency.

308.3.7 Group A occupancies. Open-flame devices shall not be used in a Group A occupancy.

Exceptions:

- Open-flame devices are allowed to be used in the following situations, provided approved precautions are taken to prevent ignition of a combustible material or injury to occupants:
 - Where necessary for ceremonial or religious purposes in accordance with Section 308.3.5.
 - On stages and platforms as a necessary part of a performance in accordance with Section 308.3.6.
 - Where candles on tables are securely sup-ported on substantial noncombustible bases and the candle flames are protected.
- Heat-producing equipment complying with Chapter 6 and the *International Mechanical Code*.
- Gas lights are allowed to be used provided adequate precautions satisfactory to the fire code official are taken to prevent ignition of combustible materials.
- Where approved by the Fire code official (see also 308.3.1.2).

SECTION 314 INDOOR DISPLAYS

314.4 Vehicles. Liquid- or gas-fueled vehicles, fueled equipment, boats or other motorcraft shall not be located indoors except as follows:

- Batteries are disconnected.
- Fuel in fuel tanks does not exceed one-quarter tank or 5 gallons (19 L) (whichever is least).
- Fuel tanks and fill openings are closed and sealed to pre-vent tampering.
- Vehicles, boats or other motorcraft equipment are not fueled or defueled within the building.

CHAPTER 5

FIRE SERVICE FEATURES

SECTION 503 FIRE APPARATUS ACCESS ROADS

503.1 (FURTHER STUDY). Consistent amendments or guidelines between fire engineering and development standards regarding access roads are being developed. This will amend Sections 501.1 through 501.4.

SECTION 508 FIRE PROTECTION WATER SUPPLIES

508.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by use of Appendix B.

508.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than ~~400~~ 150 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

1. For Group R-3 and Group U occupancies, the distance requirement shall be ~~600~~ 350 feet.
2. For buildings Group R-3 and Group U occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance the distance requirement shall be 600 feet (183 m).

CHAPTER 6

BUILDING SERVICES AND SYSTEMS

SECTION 602

DEFINITIONS

POWER TAP. A listed device for indoor use consisting of an attachment plug on one end of a flexible cord and two or more receptacles on the opposite end, and has overcurrent protection.

CHAPTER 8

INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

SECTION 803 FURNISHINGS

803.1 General requirements. The provisions of Sections 803.1.1 through ~~803.1.3~~ 803.1.4 shall be applicable to all occupancies covered by sections 803.2 through 803.7.

803.1.4 Atrium Furnishings. Atrium furnishings shall comply with Sections 803.1.4.1 and 803.1.4.2.

803.1.4.1 Potential heat. Potential heat of combustible furnishings and decorative materials within atria shall not exceed 9,000 Btu per pound (20 934 J/g) when located with an area that is more than 20 feet (6096 mm) below ceiling-level sprinklers.

803.1.4.2 Decorative materials. Decorative material in atria shall be noncombustible, flame resistant or treated with a flame retardant.

CHAPTER 9

FIRE PROTECTION SYSTEMS

SECTION 901 GENERAL

901.4.5 (FURTHER STUDY). Thresholds for when additions, change of use, alterations, and repairs to buildings should be brought up to current code are being studied further.

901.4.5.2 Alterations and repairs. When the value of all alterations or repairs performed within a seventy month period exceeds 50% of the value of the building, then fire extinguishing systems, and fire detection systems shall be installed throughout the building if one would otherwise be required for the building if of new construction. The value of the building shall be as listed by the King County Assessor's Office at the time of the first permit application or first alteration or repair work performed. Buildings not listed with an appraised value shall utilize an alternate method of valuation prescribed by the fire code official.

901.6.1 Standards. Fire protection systems shall be inspected, tested and maintained in accordance with the referenced standards listed in Table 901.6.1.

For the sole purpose of inspecting, testing and maintenance of water-based fire protection systems in accordance with NFPA 25; all existing water-based fire protection systems shall be considered new as of July 1st, 2004.

901.7 Systems out of service. Where a required fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service. Where utilized, fire watches shall be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in this section.

Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm detection system and are separated from the remainder of the building by a wall with a fire-resistance rating of not less than 1 hour and a floor/ceiling assembly with a fire-resistance rating of not less than 2 hours.

903.2.14 All buildings. All newly constructed buildings shall comply with this section.

903.2.14.1 (FURTHER STUDY). Fire sprinklering thresholds for newly constructed buildings are being studied further.

903.2.14.2 Fire flow. All buildings requiring 2000 gallons per minute or more fire flow shall be sprinklered.

903.2.14.3 Group R Division 3. Group R, Division 3 occupancies shall be provided with an automatic sprinkler system if the gross floor area exceeds 2500 square feet (including attached garages) and adequate fire flow, or hydrant spacing, or approved fire department access is not provided as defined in IFC Section 503, Appendix B, Appendix C, and Appendix D.

903.2.14.4 (FURTHER STUDY). Fire suppression requirements for new development types such as cottage housing are being studied for consistency with the Development Code.

903.4.2 Alarms. Approved audible devices and visible alarm notification appliances shall be connected to every automatic sprinkler system in accordance with Section 907 and throughout areas designated by the Fire Code Official. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Exception: With approval of the Fire Code Official, audible and visible alarm notification appliances may be omitted for approved residential sprinkler systems in 1 or 2 dwelling units if not otherwise specifically required.

903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor. in high-rise buildings.

Exception: When approved by the Fire Code Official in NFPA 13D and NFPA 13R Systems.

SECTION 904 ALTERNATE SYSTEMS

904.11 Commercial cooking systems.

Existing fire suppression systems not in compliance with Underwriters Laboratory Standard 300 shall be replaced with a conforming system by July 1st, 2005. The automatic fire-extinguishing system...(continue model code language)

Exception:

1. The use of existing fire suppressions systems may be continued where lard is being used and no vegetable oils are used.

SECTION 905 STANDPIPE SYSTEMS

905.3.7 High rise building standpipes. Standpipe risers shall be combination standpipe/sprinkler risers using a minimum pipe size of 6 in. Two 2 ½ in. hose connections shall be provided on every intermediate floor level landing in every required stairway. Where pressure reduction valves (prv) are required, each hose connection shall be provided with its own prv. The system shall be designed to provide a minimum flow of 300 gpm at a minimum pressure of 150 psi (maximum 200 psi) at each standpipe connection, in addition to the flow and pressure requirements contained in NFPA 14

905.8 Dry standpipes. Dry standpipes, when approved by the Fire Code Official, are acceptable in other than high rise buildings shall not be installed.

Exception: Where subject to freezing and in accordance with NFPA 14.

SECTION 906 PORTABLE FIRE EXTINGUISHERS

906.1 Where required. Portable fire extinguishers shall be installed in the following locations.

1. In all Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.

Exception: In all Group A, B and E occupancies equipped throughout with quick-response sprinklers, fire extinguishers shall be required only in special hazard areas

SECTION 907
FIRE ALARM AND DETECTION SYSTEMS

907.2.24 All buildings. All newly constructed buildings with a gross square footage of 3,000 or greater shall be provided with an approved automatic and manual fire alarm system.

Exceptions:

- A. Group R Division 3 and 4, and Group U Occupancies having adequate fire flow and approved access.
- B. Group R Division 3 and 4 dwelling units shall have interconnected single station smoke detectors in accordance with RCW 48.48.140 and WAC 212-10.
- C. Occupancies under 10,000 square feet that are protected throughout by an approved/monitored automatic sprinkler system.

CHAPTER 14

FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

SECTION 1404 PRECAUTIONS AGAINST FIRE

1404.5 Fire watch. When required by the fire code official for building construction or demolition that is hazardous in nature, qualified personnel shall be provided to serve as an on-site fire watch. Fire_watch personnel shall be provided with at least one approved_means for notification of the fire department and their sole duty_shall be to perform constant patrols and watch for the occurrence of fire.

CHAPTER 27

HAZARDOUS MATERIALS – GENERAL PROVISIONS

SECTION 2703 GENERAL REQUIREMENTS

2703.9 General safety precautions. General precautions for the safe storage, handling or care of hazardous materials shall be in accordance with Sections 2703.9.1 through ~~2703.9.9~~ 2703.9.10.

2703.9.10 Manufactures Limitations. The storage and use of hazardous materials shall not exceed the manufacturer's limitations on shelf life and any other restrictions on use.

CHAPTER 32 CRYOGENIC FLUIDS

SECTION 3204 STORAGE

3204.3.1.1 Location. *The limits referred to in Section 3204.3.1.1 of the International Fire Code for the storage of flammable cryogenic fluids are prohibited are hereby established as follows: within the City of Shoreline, except as approved by the fire code official.*

CHAPTER 34 FLAMMABLE AND COMBUSTIBLE LIQUIDS

SECTION 3404 STORAGE

3404.2.9.5.1 Locations where above-ground tanks are prohibited. *The limits referred to in Section 3404.2.9.5.1 of the International Fire Code for the storage of Class I and II liquids are prohibited are hereby established as follows: within the City of Shoreline, except as approved by the fire code official.*

SECTION 3406 SPECIAL OPERATIONS

3406.2.4.4 Locations where above-ground tanks are prohibited. *The limits referred to in Section 3406.2.4.4 of the International Fire Code for the storage of Class I and II liquids are prohibited are hereby established as follows: within the City of Shoreline, except as approved by the fire code official.*

CHAPTER 38 LIQUEFIED PETROLEUM GASES

SECTION 3804 LOCATION OF CONTAINERS

3804.2 Maximum capacity within established limits. *The limits referred to in Section 3804.2 of the International Fire Code for the storage of liquefied petroleum gas are prohibited are hereby established as follows: within the City of Shoreline, except as approved by the fire code official.*

APPENDIX B – FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B104.1 General. The fire flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, including basements and attached garages, except as modified in Section B104.3.

B104.2 Area separation. Portions of buildings which are separated by four-hour firewalls without openings, constructed in accordance with the *International Building Code*, are allowed to be considered as separate fire-flow calculation areas.

B105.1 One- and two-family dwellings. The minimum fire-flow requirements for one- and two-family dwellings having a fire-flow calculation area which does not exceed 3,600 square feet (344.5 m²) shall be 1,000 gallons per minute (3785.4 L/min). Fire flow and flow duration for dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5m²) shall not be less than that specified in Table B105.1.

Exception: A reduction in required fire flow of ~~50~~ 30 percent, as approved, is allowed when the building is provided with an approved NFPA 13D automatic sprinkler system.

B105.2 Buildings other than one- and two-family dwellings. The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1.

Exception: A reduction in required fire flow of up to 50 percent, as approved, is allowed when the building is provided with an approved NFPA 13 automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Fire Code*. Where buildings are of Type I or II construction and are a light-hazard occupancy as defined by NFPA 13, the reduction may be up to 75 percent. The resulting fire flow shall not be less than 1,500 gallons per minute (5678 l/min) for the prescribed duration as specified in Table B 105.1.

TABLE B105.1

- a. ~~The minimum required fire flow shall be permitted to be reduced by 25 percent for Use Group R.~~
- b. Types of construction are based on the *International Building Code*.
- c. Measured at 20 psi.

APPENDIX C – FIRE HYDRANT LOCATIONS AND DISTRIBUTION

C105.1 Hydrant spacing. The average spacing between fire hydrants shall not exceed that listed in Table C105.1.

Exception: The fire chief is authorized to accept a deficiency of up to 10 percent where existing fire hydrants provide all or a portion of the required fire hydrant service.

Regardless of the average spacing, fire hydrants shall be located such that all points on streets and access roads adjacent to a building are within the distances listed in Table C105.1.

Exception: One and two-family dwellings are permitted to be up to 350 feet from a hydrant measured from the property to the hydrant measured in the path of travel of the fire apparatus.

Dwellings not meeting this requirement shall install a NFPA 13D automatic sprinkler system or a new hydrant meeting flow requirements within the distance required in this exception.

Amend Table C105.1 to 300 ft maximum hydrant spacing for all distances where the average spacing is shown greater than 300 ft.

Table C105.1 (foot notes)

a. Reduce by 100 feet for dead-end streets or roads.

b. Where streets are provided with median dividers which can be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more

traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average ~~500-300~~ feet on each side of the street and be arranged on an alternating basis ~~up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.~~

c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

d. Reduce by 50 feet for dead-end streets or roads.

e. One hydrant for each 1,000 gallons per minute or fraction thereof unless actual flow data will support higher flow rates.

APPENDIX D – FIRE APPARATUS ACCESS ROADS

D102.1 (FURTHER STUDY). Fire Department vehicle access requirements. Coordination with engineering and development standards required. This amendment will affect all of Appendix D.

APPENDIX E – HAZARD CATEGORIES

Adopt model code language as written.

APPENDIX F – HAZARD RANKING

Adopt model code language as written.

