ANCHORAGE, ALASKA
AO No. 2015-127, As Amended


THE ANCHORAGE ASSEMBLY ORDAINS:

Section 1. Anchorage Municipal Code Title 23 is hereby repealed in its entirety and reenacted to read as follows:

TITLE 23 BUILDING CODES*

CHAPTER 23.05 BUILDING REGULATIONS

Sections
23.05.010 Adoption of codes.
23.05.020 Copies on file.
23.05.030 Applicability to service areas.
23.05.040 Local amendments.

23.05.010 Adoption of codes.
The Municipality of Anchorage, pursuant to Charter Section 10.04, adopts and incorporates by reference the following codes of technical regulation.

<table>
<thead>
<tr>
<th>Section</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.05</td>
<td>Building Regulations</td>
</tr>
<tr>
<td>23.10</td>
<td>Anchorage Administrative Code, 2012 Edition</td>
</tr>
<tr>
<td>23.20</td>
<td>International Mechanical Code, 2012 Edition</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>23.30</td>
<td>National Electrical Code, 2014 Edition, including the Appendices</td>
</tr>
<tr>
<td>23.55</td>
<td>Fire Protection Service Outside Service Areas, 2012 Edition</td>
</tr>
<tr>
<td>23.75</td>
<td>American National Standards Institute/American Society of Mechanical Engineers ANSI/ASME A17.1 2010 Safety Code for Elevators and Escalators including Appendices</td>
</tr>
<tr>
<td>23.95</td>
<td>Relocatable Ancillary Buildings, 1997 Edition</td>
</tr>
<tr>
<td>23.100</td>
<td>Mobile Aircraft Shelters, 1997 Edition</td>
</tr>
<tr>
<td>23.110</td>
<td>International Fuel Gas Code, 2012 Edition, including Appendix A</td>
</tr>
</tbody>
</table>

**23.05.020 Copies on file.**

At least one copy of each code of technical regulation adopted by reference in Section 23.05.010 shall be kept in the office of the municipal clerk.

**23.05.030 Applicability to service areas.**

Except as otherwise expressly provided, all provisions of Title 23 shall apply throughout the municipality, with the exception that the requirements to apply for and complete the building permit, plan review, and building inspection processes shall be optional in areas outside the Anchorage Building Safety Service Area (ABSSA). The ABSSA is defined in AMC 27.30.040. The boundaries of the ABSSA are outlined on a map located in AMC 27.30.700.

**23.05.040 Local amendments.**

The various codes adopted by Section 23.05.010 are amended by the local amendments set forth in chapters 23.10 through 23.110 inclusive. The last digits of the section numbers (after the title and chapter digits) are the section of the codes to which the amendment refers; i.e., Section 23.20.303.3 refers to amendments to Section 303.3 of the International Mechanical Code.

**CHAPTER 23.10 ANCHORAGE ADMINISTRATIVE CODE, 2015 EDITION**

**Sections**

Section 101 General.

23.10.101.1 Title.

23.10.101.2 Scope.

23.10.101.3 Intent.

23.10.101.4 Other laws.

23.10.101.5 Referenced codes.

23.10.101.6 Conflicting provisions.
23.10.101.7 Application to existing buildings and building service equipment.
23.10.101.8 Moved buildings.

Section 102 Definitions.
23.10.102.1 Definitions.

Section 103 Organization and enforcement.
23.10.103.1 Creation of enforcement agency.
23.10.103.2 General.
23.10.103.3 Powers and duties of the building official.
23.10.103.4 Power and duties of the Board of Building Regulation Examiners and Appeals.
23.10.103.5 Violations.
23.10.103.6 Stop work order.
23.10.103.7 Penalties and remedies.

Section 104 Permit requirements.
23.10.104.1 Permits required.
23.10.104.2 Work exempt from permit.
23.10.104.3 Temporary and seasonal use structures.
23.10.104.4 Mobile food units.
23.10.104.5 Retrofit permits.
23.10.104.6 Public service utilities.
23.10.104.7 Permit application requirements.
23.10.104.8 Design professional in responsible charge.
23.10.104.9 Optional residential single-family and two-family plan review.
23.10.104.10 Submittal documents.
23.10.104.11 Deferred submittals.
23.10.104.12 Amended construction documents.
23.10.104.13 Retention of construction documents.
23.10.104.14 Document approval and permit issuance.
23.10.104.15 Fees.

Section 105 Licensing requirements.
23.10.105.1 General provisions.
23.10.105.2 Certificate of qualification.

Section 106 Inspection requirements.
23.10.106.1 General.
23.10.106.2 Inspection requests.
23.10.106.3 Approval required.
23.10.106.4 Required inspections.
23.10.106.5 Other inspections.
23.10.106.6 Re-inspections.
23.10.106.7 Special inspections and structural observation.

Section 107 Certificates of Occupancy.
23.10.107.1 Use or occupancy.
23.10.107.2 Change in use.
Section 108  Unsafe buildings, structures, and building service equipment.

23.10.108.1  General.

23.10.108.2  Unsafe building, structure, or building service equipment.

23.10.108.3  Remedial measures.

23.10.108.4  Application for relief from the Building Official.

Section 101  General.

23.10.101.1  Title.  These regulations shall be known as the Anchorage Administrative Code, may be cited as such and referred to herein as "this code."

23.10.101.2  Scope.  The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.  It shall also serve as the administrative, organizational and enforcement rules and regulations for the technical codes related to all work types listed above within the Municipality.

23.10.101.3  Intent.  The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment.

23.10.101.4  Other laws.  The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.
23.10.101.5 Referenced codes. Title 23 adopts numerous codes. Throughout the International Codes and other codes as adopted in Title 23, there are references to other codes. In all places where the International Codes make reference to the International Plumbing Code, it shall mean the Uniform Plumbing Code as adopted by the Municipality. In all places where the International Codes and other codes refer to the Electrical, Elevator, Property Maintenance, Sign, or Security codes, it shall mean those codes as adopted by the Municipality.

23.10.101.6 Conflicting provisions. The following shall resolve all conflicting provisions of this code:

A. When conflicting provisions or requirements occur between this code, the technical codes, reference standards and other codes or laws, the most restrictive shall govern.

B. When conflicts occur between the technical codes, those provisions providing the greater safety to life shall govern. In other conflicts where sanitation, life safety or fire safety are not involved, the most restrictive provision shall govern.

C. Where, in a specific case, different sections of the technical codes specify different materials, methods of construction or other requirements, the most restrictive shall govern. When there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

D. When conflicts occur between specific provisions of this code, those provisions becoming the law most recently shall prevail.

23.10.101.7 Application to existing buildings and building service equipment. Buildings, structures and the building service equipment to which additions, alterations or repairs are made shall comply with all the requirements of the technical codes for new facilities, except as specifically provided in this section or the International Existing Buildings Code.

23.10.101.8 Moved buildings.

23.10.101.8.1 Buildings moved into the Municipality. Buildings or structures moved into the Anchorage Building Safety Service area shall comply with the provisions of this code for new buildings and structures.

23.10.101.8.2 Buildings moved within the Municipality. Buildings and structures moved within the Anchorage Building Safety Service Area shall comply with the provisions of this code for new or existing buildings and structures, and shall have a
code compliance inspection by the Municipality for fire and life safety evaluation prior to the move. The burden of proof to demonstrate compliance with the code rests with the applicant. The building official may require supplemental information, including but not limited to as-built drawings and engineers’ reports, prior to issuing a permit for the move.

**Exception:** One- and two-family dwellings not over two stories in height, moved within the Anchorage Building Safety Service Area and not changed from the existing as-built condition, do not require lateral analysis or lateral upgrades.

### Section 102 Definitions.

#### 23.10.102.1 Definitions. For the purpose of this code, certain terms, phrases, words and derivatives shall be construed as specified in this section. Where terms are not defined, the definition shall be in accordance with the International Codes, National Electrical Code and the Uniform Plumbing Code adopted by the MOA. Terms not found in adopted codes shall be the ordinary accepted meanings within the context in which the term is used in Webster’s Dictionary, and shall be considered as providing ordinarily accepted meanings. Words used in the singular include the plural and the plural the singular. Words used in the masculine gender include the feminine and the feminine the masculine.

**Addition** is an extension or increase in floor area or height of a building or structure.

**Alter or alteration** is a change or modification in construction or building service equipment.

**Approved, as to materials, types of construction, equipment and systems,** refers to approval by the building official as the result of investigation and tests conducted by the building official, or by reason of accepted principles or tests by recognized authorities, technical or scientific organizations.

**Approved agency** is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when the agency has been approved by the building official.

**Authorized Agent** is a person designated by an owner in writing to interact on their behalf with the municipality during the course the building permit application, plan review, and inspection process. An authorized agent may secure permits in the name of the owner, advise the owner on the purchasing of equipment, materials and labor, and advise the owner on the coordination, scheduling and administration of work. An authorized agent may not coordinate, schedule, or administer work, pay for labor, equipment or materials, engage in contractual
relationships with or supervise subcontractors, or hire or supervise employees.

**Building** is a structure used or intended for supporting or sheltering a use or occupancy.

**Building Code** is the International Building Code, as adopted by the Municipality.

**Building construction contractor** is a person who, in the pursuit of an independent business, undertakes or offers to perform, or submits a bid for a project to construct, reconstruct, alter, repair, move or demolish any part of a building, highway, road, railroad, or any type of fixed structure, including excavation and site development and the erection of scaffolding, electric signs, marquees, or other similar structures for which a condition, rule, regulation, or standard is prescribed by this code. This term includes those contractors generally classed as a general contractor, builder, mechanical, or specialty contractor and subcontractors. This term does not include regular employees of a building construction contractor licensed under this code or a person who, as owner of a building or structure, performs work on the building or structure for the owner’s use and benefit that would otherwise subject the owner to the licensing requirement of this section.

**Building official** is the officer or other designated authority charged with the administration and enforcement of this code, or a regularly authorized deputy.

**Building Permit** is a general permit to perform work regulated by Title 23, excluding electrical, mechanical, and plumbing work. Electrical, mechanical, and plumbing work is performed under either a **trade permit or retrofit permit**, further defined elsewhere in this section.

**Building service equipment** refers to the plumbing, mechanical, electrical and elevator equipment including piping, wiring, fixtures and other accessories providing sanitation, lighting, heating, ventilation, cooling, refrigeration, fire-fighting and transportation facilities essential to the occupancy of the building or structure for its designated use.

**Change order** refers to the documentation required to support a design change that is significant enough to warrant approval by the plan reviewer prior to commencement of work involving the change.

**Commercial Construction** is construction of a structure of a non-residential nature or a residential structure comprised of 3 or more contiguous dwelling units.

**Dangerous Building Code** is the Abatement of Dangerous Buildings Code (AMC 23.70) as adopted by the Municipality.
Electrical Code is the National Electrical Code, as adopted by the Municipality.

Electrical Contractor means a contractor licensed by the state and municipality as an electrical contractor who installs electrical wiring and equipment in industrial, commercial or residential categories. An electrical contractor, unless specifically exempted in AS 08.40.190, must be registered as, or employ, an electrical administrator licensed under AS 08.40, and may only submit bids for, or work on, projects for which it has a licensed electrical administrator.

Electrical journeyman is a person who installs electrical systems subject to the standards of the adopted electrical codes. An electrical journeyman shall possess a Journeyman Electrician Certificate of Fitness issued by the State of Alaska when performing electrical work, shall not be able to obtain permits, and shall be employed by an electrical contractor licensed in the Municipality. A journeyman electrician may perform electrical work in all occupancies and supervise up to two trainees.

Electrical residential wireman is a person who installs residential wiring subject to the standards of the adopted electrical codes. An electrical residential wireman shall possess a residential wireman certificate of fitness issued by the State of Alaska, shall not be able to obtain permits, and shall be employed by an electrical contractor licensed in the Municipality. A residential wireman is limited to residential occupancies providing no more than four residential units on a common foundation and may supervise up to two trainees.

Electrical trainee is a person employed by an electrical contractor to learn the electrical trade on the job who possesses an Electrician Trainee Certificate of Fitness issued by the State of Alaska. Trainees may work only when under the direct supervision of a journeyman or wireman, and no more than two trainees may be assigned to a journeyman.

Elevator Code is the American National Standards Institute/American Society of Mechanical Engineers ANSI/ASME A17.1 Safety Code for Elevators and Escalators as adopted by the Municipality.

Existing Building is a building erected prior to the adoption of this code, or one for which a legal certificate of occupancy has been issued.

Existing Building Code is the International Existing Building Code, as adopted by the Municipality.

Field change order refers to the documentation required to support a design change that is minor enough to be reviewed by the inspector or plan reviewer simultaneously with or subsequent to the commencement
of work involving the change.

**Fire Code** is the International Fire Code, as adopted by the Municipality.

**Fuel Gas Code** is the International Fuel Gas Code as adopted by the Municipality.

**Gas fitter, journeyman** is a person issued a certificate of qualification by the municipality to install, repair and maintain gas piping and gas-fired equipment regulated by the adopted plumbing and fuel gas codes as an employee of a licensed gas piping, plumbing or sheet metal contractor. A journeyman gas fitter shall hold a State of Alaska certificate of fitness card.

**Gas piping contractor** means a contractor whose business operations consist of the repair and installation of gas piping and equipment regulated by the adopted plumbing and fuel gas codes. A gas piping contractor is required to be licensed by the state as a mechanical contractor, licensed by the municipality as a gas piping contractor and must possess a certificate of qualification issued by the municipality. A gas piping contractor is required to be registered as, or employ, a mechanical administrator licensed under AS 08.40, and may only submit bids or work on, projects for which it has a licensed mechanical administrator.

**General contractor, or Builder** means a contractor licensed by the state and municipality whose business operations require the use of more than three trades or the use of mechanical or specialty contractors and subcontractors who are under the supervision of the contractor.

**Hydronic heating contractor** means a contractor licensed by the state as a mechanical contractor and licensed by the municipality as a hydronic heating contractor whose business operations consist of the repair and installation of hydronic heating piping and equipment regulated by the adopted mechanical and fuel gas codes. A hydronic heating contractor must be registered as, or employ, a mechanical administrator licensed under AS 08.40, and may only submit bids for, or work on, projects for which it has a licensed mechanical administrator.

**Listed and listing** are terms referring to equipment and materials included in a list published by an approved testing laboratory, inspection agency, or other organization concerned with product evaluation and maintaining periodic inspection of current productions of listed equipment or materials. The published list shall state the material or equipment complies with approved nationally recognized codes, standards or tests and has been tested or evaluated and found suitable for use in a specified manner.
**Mechanical Code** is the International Mechanical Code, as adopted by the Municipality.

**Municipality** means Municipality of Anchorage.

**Occupancy** is the purpose for which a building, or part thereof, is used or intended to be used.

**Owner** is any person, agent, firm or corporation with a legal or ownership interest in the property.

**Permit** is an official document or certificate issued by the building official authorizing performance of a specified activity.

**Person** is a natural person, heir, executor, administrator or assign, and also includes a firm, partnership or corporation, its or their successor or assign, or agent of any of the aforesaid.

**Plumbing Code** is the Uniform Plumbing Code, as adopted by the Municipality.

**Plumbing contractor** means a contractor whose business operations consist of plumbing work regulated by the adopted plumbing code. A plumbing contractor is required to be licensed by the state as a mechanical contractor, licensed by the municipality as a plumbing contractor and must be issued a certificate of qualification issued by the municipality. A plumbing contractor is required to be registered as, or employ, a mechanical administrator licensed under AS 08.40, and may only submit bids for, or work on, projects for which it has a licensed mechanical administrator.

**Plumber journeyman** is a person issued a certificate of qualification by the municipality to labor at the trade of plumbing as an employee of a licensed plumbing contractor installing and repairing plumbing and gas piping systems and equipment. A journeyman plumber shall hold a State of Alaska certificate of fitness card.

**Plumber trainee** is a person, other than a contractor or journeyman, who labors at the trade of plumbing as an employee of a licensed plumbing contractor. The trainee shall be under the direct supervision and in the immediate presence of a plumbing contractor or journeyman. The trainee shall hold a State of Alaska certificate of fitness card and a Municipality of Anchorage certificate of qualification trainee card.

**Refrigeration contractor** means a contractor licensed by the state as a mechanical contractor and licensed by the municipality as a refrigeration contractor whose business operations consist of the repair and installation of refrigeration systems regulated by the adopted mechanical code. A refrigeration contractor must be registered as, or
employ, a mechanical administrator licensed under AS 08.40, and may only submit bids for, or work on, projects for which it has a licensed mechanical administrator.

**Repair** is the reconstruction or renewal of any part of an existing building, structure or building service equipment for the purpose of its maintenance.

**Residential construction**, for the purposes of issuance of a residential permit, means construction associated with one- and two-family dwelling units.

**Residential electrical contractor** means a contractor licensed by the state and municipality as an electrical contractor who installs electrical wiring and equipment in residential buildings up to four units on a single foundation.

**Retrofit permit** is an official document or certificate issued by the building official for limited electrical, plumbing or mechanical work regulated by this code.

**Shall** means mandatory.

**Sheet metal contractor** means a contractor whose business operations consist of the repair and installation of heating, ventilation and air-conditioning equipment, systems and ductwork regulated by the adopted mechanical code. A sheet metal contractor is required to be licensed by the state as a mechanical contractor, licensed by the municipality as a sheet metal contractor and issued a certificate of qualification by the municipality. A sheetmetal contractor is required to be registered as, or employ, a mechanical administrator licensed under AS 08.40, and may only submit bids for, or work on, projects for which it has a licensed mechanical administrator.

**Sheet metal journeyman** is a certificate of qualification holder who labors at the trade of sheet metal as an employee of a licensed sheet metal contractor. A sheet metal journeyman may install and repair mechanical equipment, i.e., HVAC equipment, duct work, and venting of appliances.

**Sheet metal trainee** is person, other than a contractor or journeyman, who labors at the trade of sheet metal as an employee of a licensed sheet metal contractor. The trainee shall be under the direct supervision and in the immediate presence of a sheet metal contractor or journeyman. The trainee shall hold a certificate of qualification trainee card issued by the municipality.

**Specialty contractor** means a contractor licensed by the State of Alaska to perform a specialty trade. Specialty contractors performing work regulated by this code are required to be licensed by the
municipality.

**Structural observation** means the visual observation of the structural system, for general conformance to the approved plans and specifications, at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspections required in Section 106.7.

**Structure** is that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

**Technical Codes** refer to those codes adopted by the Municipality containing the provisions for design, construction, alteration, addition, repair, removal, demolition, use, location, occupancy and maintenance of buildings and structures and building service equipment as herein defined.

**Trade Permit** is an official document or certificate issued by the building official to permit performance of electrical, mechanical, or plumbing work. Trade permits do not require architectural or structural plan review but may require plan review for the trade and may also require plan review for compliance with fire prevention and land use regulations.

**Valuation or value** as applied to a structure and any related service equipment, shall be the estimated cost to replace the structure and any related service equipment in kind, based on current replacement costs, as set forth in the Building Evaluation Data Form as described in section 23.10.104.15.1. This value shall contain the entire cost of demo, labor, materials, overhead and profit. This value does not include intellectual or creative value that may be associated with design or art work.

## Section 103  Organization and enforcement.

### 23.10.103.1 Creation of enforcement agency. There is hereby established a code enforcement agency under the administrative and operational control of the building official.

### 23.10.103.2 General. Whenever the term or the title "administrative authority," "responsible official," "building official," "chief inspector," "code enforcement officer," or similar designation is used herein or in any of the technical codes, it shall mean the building official designated by the appointing authority.

### 23.10.103.3 Powers and duties of the building official.

### 23.10.103.3.1 General. The building official is authorized and directed to enforce the provisions of this code, 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, and shall not have the effect of waiving requirements specifically provided for in this code.

**23.10.103.3.2 Applications and permits.** The building official shall receive applications, review construction documents and issue permits for the erection and alteration, demolition and moving of buildings and structures, inspect the premises for which such permits are issued and enforce compliance with the provisions of this code.

**23.10.103.3.2.1 The Internal Auditor shall develop a performance measure and customer satisfaction survey mechanism that audits users experiences with the Building Safety Department.**

**23.10.103.3.3 Notices and orders.** The building official shall issue all necessary notices and orders to ensure compliance with this code. The person to whom a notice or order is directed shall have 30 days to appeal to the board of building regulation examiners and appeals, except as provided in Chapter 23.70, limiting the appeal period to 10 days for notices to vacate. If no timely appeal is filed, the notice and order is final and binding and not subject to any further appeal. The building official may withdraw a notice or order at any time.

**23.10.103.3.4 Inspections.** The building official shall make all of the required inspections, or the building official is authorized to accept reports of inspections by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or the responsible individual. The building official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.

**23.10.103.3.5 Identification.** The building official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

**23.10.103.3.6 Right of entry.** Where it is necessary to make an inspection to enforce the provisions of this code, or where the building official has reasonable cause to believe there exists in a structure or upon a premises a condition contrary to or in violation of this code which makes the structure or premises unsafe, dangerous or hazardous, the building official is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided if such structure or premises is occupied, credentials shall be presented to the occupant and entry requested. If such structure or premises is unoccupied, the building official shall first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the building official shall have recourse to the remedies provided by law to secure entry.
23.10.103.3.7 Department records. The building official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.

23.10.103.3.8 Liability. The building official, member of the building board or employee charged with the enforcement of this code, while acting for the Municipality in good faith and without malice in the discharge of duties required by this code or other pertinent law or ordinance, shall not be liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by the officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the municipal attorney until the final termination of the proceedings. Neither the building official nor any subordinate shall be liable for cost in any action, suit or proceeding instituted in pursuance of the provisions of this code.

23.10.103.3.9 Approved materials and equipment. Materials, equipment and devices approved by the building official shall be constructed and installed in accordance with such approval.

23.10.103.3.9.1 Used materials and equipment. The use of used materials meeting the requirements of this code for new materials is permitted. Used equipment and devices shall not be reused unless approved by the building official.

23.10.103.3.10 Modifications. Whenever there are practical difficulties involved in carrying out the provisions of this code, the building official has the authority to grant modifications for individual cases, upon application of the owner or owner’s representative, provided the building official shall first find a special individual reason making the strict letter of this code impractical, the modification is in compliance with the intent and purpose of this code, and such modification does not lessen health, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the Development Services Department.

23.10.103.3.11 Alternative materials, design, and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds the proposed design is satisfactory and complies with the intent of the provisions of this code, and the material, method or work offered is, for the purpose intended, at least the equivalent prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.
23.10.103.3.11.1 **Research reports.** Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

23.10.103.3.11.2 **Tests.** Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official is authorized to require tests as evidence of compliance, to be made at no expense to the Municipality. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency, and reports of such tests shall be required for retention of public records.

23.10.103.3.12 **Cooperation of other officials and officers.** The building official may request and shall receive the assistance and cooperation of other officials of the Municipality as required in the discharge of the duties required by this code or other pertinent laws or ordinance.

23.10.103.3.13 **Contractor license suspension or revocation.** The building official may cancel, suspend, or revoke the license of a contractor who displays incompetence or lack of knowledge in matters relevant to such license, or knowingly performs work multiple times without first obtaining the required permit(s) or if such license was obtained by fraudulent measures. If the license of any person is so cancelled or revoked, another such license shall not be granted to such person within 12 months after the date of such cancellation or revocation. Notice of the revocation shall be sent to the State of Alaska Department of Labor. Any action may be appealed to the board of building regulation examiners and appeals (building board).

23.10.103.3.14 **Connection of service utilities.** No person shall make connections from a utility, source of energy, fuel or power to any building or system regulated by this code for which a permit is required, until released by the building official.

23.10.103.3.15 **Temporary connection.** The building official has authority to authorize the temporary connection of the building or system to the utility source of energy, fuel, or power.

23.10.103.3.16 **Authority to disconnect service utilities.** The building official has authority to authorize disconnection of utility service to the building, structure, or system regulated by this code and the codes referenced in case of emergency where necessary to eliminate an immediate hazard to life or property. The building official shall notify the serving utility and, whenever possible, the owner and occupant of the building, structure, or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant of the building, structure, or service system shall be notified in writing as soon as practical thereafter.
23.10.103.4 Power and duties of the Board of Building Regulation Examiners and Appeals.

23.10.103.4.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building or fire code official relative to the application and interpretation of this code, there shall be and is hereby created a board of building regulation examiners and appeals (hereafter “building board”). The building board may, in its discretion, offer comment or recommendation concerning amendments to this code. The building board shall be appointed by the governing body and shall hold office at its pleasure. The building board shall follow rules of procedure approved by the Assembly for conducting business. All decisions and findings in an appeal shall be rendered in writing to the appellant, with a duplicate copy to the building official.

23.10.103.4.2 Appeal pools and three-member hearing panels. The building board shall establish pools from which three-member hearing panels may be selected. The pools shall be comprised of building board members qualified by experience and training to pass upon matters pertaining to the appeal.

A. Up to five pools shall be established the first meeting of each calendar year.

B. The secretary to the board and the board chair shall assign members from the most relevant pool to a specific appeal.

C. At least two members of a three-member hearing panel shall be actively engaged in disciplines, trades, or professions relevant to the appeal.

D. In the discretion of the building board, a decision rendered by a three-member hearing panel may be accepted for de novo review.

23.10.103.4.3 Limitations of authority. An application for appeal shall be based on a claim that the true intent of this code, or the rules legally adopted hereunder, have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The building board, including three-member hearing panels, shall have no authority to waive requirements of this code.

23.10.103.4.4 Members, voting and hearings before the building board.

A. The building board, as described in Section 4.40.030, and this title shall consist of no fewer than 11 and up to 15 members appointed by the mayor, subject to confirmation by the Assembly, qualified by experience or training to pass on matters pertaining to building construction, as follows:

1. Two (2) members shall be Architects registered in the State of Alaska.

2. Two (2) members shall be Professional Engineers registered as Civil
3. One (1) member shall be a Professional Engineer, registered as a Mechanical Engineer in the State of Alaska.

4. One (1) member shall be a Professional Engineer, registered as an Electrical Engineer in the State of Alaska.

5. Two (2) to four (4) members shall be licensed General Contractors actively engaged in general building construction and at least one of the members shall be actively engaged in home building.

6. One (1) member shall be a licensed Electrical Contractor actively engaged in the electrical trade.

7. One (1) member shall be a licensed Plumbing Contractor actively engaged in the plumbing trade.

8. One (1) member shall be a licensed Mechanical Contractor actively engaged in the mechanical trade.

9. Up to two (2) additional members, qualified by experience or training and actively engaged in any of the above listed disciplines, trades, or professions.

B. Building board quorum and voting.

1. Quorum. The majority of the appointed members shall constitute a quorum.

2. Voting. Action by the building board, including affirmative action on quasi-judicial matters, requires an affirmative vote of the greater of 6 or a majority of members in attendance who are not disqualified by conflict of interest.

C. Three-member hearing panels. A building board three-member hearing panel shall hear and decide appeals from decisions of administrative officials and other enforcement orders relating to code regulations under Title 23. Except for appeals filed under 23.70.706, appeals will be scheduled within 3 to 5 business days of the receipt of application for appeal. A person with the right to appeal has 30 days from the date of the action of an administrative official to file an appeal with the secretary to the building board, with the exception noted in section 23.70.706.1, limiting the appeal period to 10 days for notices to vacate, unless a longer time period is stated in writing by the building official. If no appeal is filed within these time periods, the action of the administrative official is deemed final and binding and not subject to any further appeal.

D. Three-member hearing panel quorum and voting.
1. **Quorum.** A quorum for a hearing panel shall be three panel members.

2. **Voting.** The granting of any appeal or part thereof by a hearing panel shall require the concurring vote of two members of the panel. Any appeal or part thereof which is not granted by the panel shall be considered denied.

3. **Reconsideration.** Hearing panel decisions shall not be subject to reconsideration, but may be appealed under subsection E. of this section.

E. Discretionary de novo re-hearing: In its sole discretion as determined by majority vote of the members in attendance not disqualified from voting by conflict of interest or under this subsection as provided below, the building board may accept an appeal decided by a three-member hearing panel, in whole or in part, for de novo re-hearing by the full building board.

F. Application for de novo re-hearing by the full board may be made by any party or by any member of the building board.

G. Application for de novo re-hearing by the full building board must be filed with the secretary to the board within 5 business days from publication of the hearing panel's written decision.

H. On the question of whether the building board shall exercise its discretion to re-hear a matter as a full board, members of the hearing panel shall not participate in the vote.

I. If de novo re-hearing is accepted by the building board, members of the hearing panel first hearing the appeal may participate in the re-hearing as members of the full board.

23.10.103.4.5 **Secretary to the building board.** The building official or designee shall be an ex-officio member without vote and shall act as secretary to the building board, shall prepare all correspondence, send out all required notices within 5 business days, keep minutes of all meetings, and maintain a file on each case coming before the building board. The secretary will provide timely electronic notice and copies of hearing panel decisions to the full building board.

23.15.103.4.6 **Supplementing the hearing packet.** When the building board panel requires data and documents not in the current possession of the building official, the secretary to the building board shall act timely on the request to ensure the hearing packet is supplemented with the requested information prior to hearing. If the Notice of Appeal relies on, but does not provide, data, documents, or other information, the secretary shall request or provide the supplemental information within 5 days of receipt of the Notice of Appeal. Failure to request or receive supplemental information timely shall be a valid reason to reschedule the hearing to a time when the supplemental information is available.
23.10.103.4.7 Appeal filing fee. The cost of filing an appeal to the building board is $100 and shall accompany the filing of the appeal. The $100 filing fee will be returned to the appellant if they or their representative attend the three-member panel hearing. If a three-member hearing panel denies an appeal, the appellant may request a de novo hearing by the full building board for an additional filing fee of $500. The fee shall accompany the de novo hearing request. The $500 filing fee will be returned to the appellant if the full board overturns the decision rendered by the three-member hearing panel and grants the appeal. There is no fee for a de novo hearing request when a three-member hearing panel grants an appeal. The secretary to the building board may waive the fee if the appellant demonstrates financial hardship or indigence.

23.10.103.5 Violations.

23.10.103.5.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code.

23.10.103.5.2 Notice of violation. The building official is authorized to serve a notice of violation or order on the person responsible for the erection, construction, alteration, extension, repair, moving, removal, demolition or occupancy of a building or structure in violation of the provisions of this code, or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

23.10.103.5.3 Prosecution of violation. If a person does not comply with a notice of violation or order, the building official is authorized to request the municipal attorney of the Municipality to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

23.10.103.6 Stop work order.

23.10.103.6.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the building official is authorized to issue a stop work order.

23.10.103.6.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner’s agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work shall be permitted to
23.10.103.6.3 Unlawful continuance. Any person continuing any work after being served with a stop work order, except such work as the person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.

23.10.103.7 Penalties and remedies.

23.10.103.7.1 Violation penalties. Any person violating a provision of this code or failing to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law including but not limited to those in Table 3 of this code.

23.10.103.7.2 Civil Penalties. In addition to any other remedy or penalty provided by this title, any person violating any provision of this title, or any code of technical regulation adopted pursuant to this title, shall be subject to the civil penalties or injunctive relief, or both, as provided by Section 1.45.010 B., or fines may be assessed according to the schedule provided in Title 14.

23.10.103.7.3 Civil Actions. Any person aggrieved by the act or omission of another person constituting a violation of the provisions of this title or the codes of technical regulation adopted herein may, following 30 days written notice to the municipal official or department empowered to enforce the provision, commence and maintain a civil action for injunctive relief authorized by Section 1.45.010 B. The court, in issuing a final order in any action brought by a private person under this section may, in its discretion, award costs of litigation to any party. In any action under this section, the municipality, if not a party, may intervene as a matter of right.

Section 104 Permit requirements.

23.10.104.1 Permits required. Any owner or authorized agent intending to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building, structure or portion thereof, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit unless work is specifically exempted by this code.

23.10.104.1.1 Emergency repairs. Where equipment replacements and repairs must be performed after hours in an emergency situation, the contractor shall call the Building Safety Hotline (343-7500) before commencing the work. The permit application shall be submitted within the next working business day to the building official.
23.10.104.1.2 **Parcels with multiple structures.** Each independent structure on a parcel with multiple structures requires a separate building permit unless otherwise approved by the Building Official.

23.10.104.2 **Work exempt from permit.** Exemptions from permit requirements of this code shall not be deemed to grant authorization for work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of the Municipality. Exemptions from the requirement for a permit shall not constitute an exemption from the licensing requirements in section 23.10.105.

23.10.104.2.1 **Building permit exemptions.** A building permit shall not be required for the following:

A. One-story detached accessory buildings used as tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 200 square feet.

B. Fences of light-frame construction not over eight feet high.

C. Oil derricks.

D. An isolated retaining wall where the retained height measured from the bottom of the footing to the top of the retained soil at the face of the wall is not more than 4 feet and the top of the wall above the retained soil is not more than one foot. Multiple walls, separated by terraces to form an aggregate wall height greater than 4 feet are also exempt where the clear distance between the back face of the lower wall and the front face of the upper wall is greater than two times the retained height of soil of the lower wall.

E. Water tanks supported directly upon grade, if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2:1.

F. Platforms, walks, ramps and driveways not more than 30 inches above grade and not over any basement or story below.

G. Painting, papering, tiling, carpeting, cabinets, countertops and similar finish work.

H. Temporary motion picture, television and theater stage sets and scenery.
I. Prefabricated swimming pools accessory to a Group R, Division 3 Occupancy, less than 24 inches deep, do not exceed 5,000 gallons and installed entirely above ground.

J. Window awnings supported by an exterior wall which do not project more than 54 inches from the exterior wall and do not require additional support of Group R-3, and Group U occupancies.

K. Movable cases, counters and partitions not over 5 feet 9 inches high.

L. Shade cloth structures constructed for nursery or agricultural purposes and not including service systems.

M. Swings and other playground equipment accessory to one- and two-family dwellings.

N. Construction site job shacks and fences on legal permitted construction sites.

O. Storage racks not over six feet high.

P. Artwork six or less feet tall, where the center of gravity of the structure falls below the mid-height of the structure.

Q. Grave markers.

R. Roof antennas not mechanically anchored where the existing roof structure and stability are checked by a civil engineer licensed in the State of Alaska.

S. Replacement of windows and doors where the rough opening is not enlarged.

T. Repair or replacement of exterior wall coverings and roof coverings where the total cost of the repair or replacement using fair market value of materials and labor does not exceed $5,000.

U. Repair or replacement of gypsum wall board wall and ceiling finish material where the total cost of the repair and replacement using fair market value of materials and labor does not exceed $5,000. This exception does not apply to code required fire resistive wall, floor and ceiling assemblies.

V. Temporary structures erected for less than 15 days.
Unless otherwise exempted by this code, separate plumbing, electrical and mechanical permits shall be required for the above exempted items.

23.10.104.2.2 Electrical permit exemptions. An electrical permit shall not be required for the following:

A. Portable motors or other portable appliances energized by means of a cord or cable having an attachment plug end to be connected to an approved receptacle when the cord or cable is permitted by the Electrical Code.

B. Repair or replacement of fixed motors, transformers or fixed approved appliances of the same type and rating in the same location.

C. Temporary decorative lighting.

D. Repair or replacement of current-carrying parts of any switch, contactor or control device.

E. Reinstallation of attachment plug receptacles, but not the outlets.

F. Repair or replacement of any overcurrent device of the required capacity in the same location.

G. Repair or replacement of electrodes or transformers of the same size and capacity in the same location.

H. Removal of electrical wiring.

I. Temporary wiring for experimental purposes in suitable experimental laboratories.

J. Wiring for temporary theater, motion picture or television stage sets.

K. Low-energy power, controls and signal circuits of Class II and Class III as defined in the Electrical Code.

L. Installation, alteration or repair of electrical wiring, apparatus or equipment or the generation, transmission, distribution or metering of electrical energy or in the operation of signals or the transmission of intelligence by a public or private utility in the exercise of its function as a serving utility.

M. The provisions of this code shall not apply to electrical equipment used for radio and television transmissions,
but shall apply to equipment and wiring for power supply, the installations of towers and antennas.

N. Installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

23.10.104.2.3 Mechanical permit exemptions. A mechanical permit shall not be required for the following:

A. A portable heating appliance.

B. Portable ventilation appliances and equipment.

C. A portable cooling unit.

D. A portable evaporative cooler.

E. Steam, hot water or chilled water piping within any heating or cooling equipment or appliance regulated by the Mechanical Code.

F. The replacement of any minor part that does not alter the approval of equipment or appliance or make such equipment or appliance unsafe.

G. Self-contained refrigeration system containing 10 pounds or less of refrigerant or that are actuated by motors of one horsepower or less.

H. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

23.10.104.2.4 Plumbing permit exemptions. A plumbing permit shall not be required for the following:

A. The stopping of leaks in drains, soil, waste or vent pipe, provided, however, should any concealed trap, drain pipe, soil, waste or vent pipe become defective and necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be procured and inspection made as provided in this code.

B. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, nor for the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.
C. The replacement of a hose bibb, drinking fountain, wash fountain, sink or lavatory, including the faucet, provided such replacement does not involve or require the replacement or rearrangement of piping other than a trap or trap arm.

D. The replacement of a water heater, water closet, bidet or urinal, including the flushometer valve, provided such replacement does not involve or require the replacement or rearrangement of piping.

23.10.104.3 Temporary and seasonal use structures.

23.10.104.3.1 Temporary structures. Buildings, structures, sheds, canopies, fences, reviewing stands and other structures of a temporary nature may be erected and occupied by permit from the building official for a period of 180 days. Fabric buildings and shelter structures intended to remain in place for longer than 180 days and not intended to be used as seasonal structures shall not qualify as temporary structures. Temporary structures may be erected without meeting all requirements for permanent structures, but shall meet the following conditions:

A. Temporary structures shall be limited to Group A, Group B, Group M, and Group U occupancies;

B. The size of the structure shall not exceed 1,500 square feet nor be more than one story in height unless otherwise approved by the building official;

C. The structure shall meet the required yards and separation from adjacent buildings as provided by the municipal land use regulations, but in no case less than ten feet;

D. Temporary structures extensively used or essential for public use shall comply with the building code for accessibility. Structures directly associated with the actual processes of major construction, such as scaffolding, bridging, or materials hoists, are not included;

E. All temporary structures shall meet structural requirements in regard to type of materials, spans, and stresses as determined to be safe by the building official;

F. Mobile homes and trailers intended for temporary use shall be of manufactured design. Homemade mobile homes or trailers shall not be allowed;
G. The structure and all associated materials shall be removed from the approved location on or before the expiration date of the permit;

H. Permits for temporary structures may be extended on a one-time basis for 180 days, upon application to the building official with a payment per Table 3-A;

I. After a temporary structure is removed from a lot, parcel or tract of land, no temporary structure may be placed at the same location for a period of at least 180 days;

J. Normally occupied temporary structures shall have toilet facilities.

**Exception: Unless otherwise approved by the Building Official.**

23.10.104.3.2 Seasonal use structures. Sale stalls, carnivals, fairs and assembly pavilions or tents, including structures, such as tent frames, and attending support structures, such as decks, boardwalks, light poles, and plumbing/mechanical and electrical installations, may be erected without meeting all requirements for permanent structures. Fabric buildings and shelter structures intended to remain in place for longer than 180 days and not intended to be used as seasonal structures shall be permitted as permanent structures. Seasonal use structures shall meet the following conditions:

A. Seasonal use structures shall be limited to Groups A, B and M type occupancies;

B. The structure shall not exceed one story in height;

C. Such structures and installations are subject to a maximum occupancy not to exceed eight months in any one calendar year;

D. An annual permit shall be obtained and an annual code compliance inspection performed prior to the establishment of the use or occupancy for each calendar year;

E. The annual code compliance inspection shall certify there are no hazards to health, life, or safety and proper maintenance of the structure or installations has been performed prior to re-occupancy;

F. Continued occupancy of seasonal use structures shall be allowed only if permitted and occupied within six months
of the last occupancy, use or vacation. If not, the structure shall be removed from the premises so as to leave it in a clean, level, nuisance-free condition;

G. Seasonal activities with seating areas shall provide accessible temporary or permanent toilet facilities as required by the Building Code;

H. Seasonal use structures open for public use shall comply with accessibility provisions of the Building Code;

I. All seasonal use structures shall meet structural requirements in regard to type of materials, spans, and stresses as determined to be safe by the building official.

23.10.104.3.3 Temporary and seasonal use permit applications. The application for a temporary or seasonal use permit shall include:

A. Property owner's name and mailing address;

B. Legal description of the proposed site with a plot plan showing the proposed location of the structure on the premises, location of any existing structures, and the location of any existing or proposed parking areas;

C. Length of use of the proposed structure, if a temporary or special event structure. No permit shall be required if the use is 14 days or less. However, exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in violation of the provisions of this section or any other laws or ordinances of the Municipality;

D. Description of the proposed use and a justification of temporary or seasonal occupancy;

E. All required fees and cash bonds.

23.10.104.3.4 Temporary and Seasonal Use permit fees. A nonrefundable fee shall accompany applications for temporary or seasonal use structures. See Table 3-A of this code for applicable fee. Applications for the annual code compliance inspection for seasonal use structures shall be accompanied by the renewal fee.

23.10.104.3.5 Temporary and seasonal use permit cash bonds. For all temporary or seasonal use structures, prior to permit approval, the applicant shall post bond with the building official. The bond shall be in the form of cash or certified check
in the amount of $5,000.00:

A. Upon removal of the temporary or seasonal use structure by the applicant and compliance with all terms of this section, the bond shall be returned in full to the applicant.

B. Thirty days after receipt of a notice from the building official to the property owner or applicant of failure to comply with the terms of the permit, the bond shall be forfeited at the applicant’s sole expense.

23.10.104.4 Mobile food units. Mobile food units, including coffee carts, (hereafter referred to as units) may be set up without obtaining a building permit and certificate of occupancy under the following restrictions:

A. The unit shall not exceed 8'6" in width or 48' in length, including overhangs.

B. The unit shall be readily moveable and either:
   1. currently titled and licensed by the State of Alaska as a
      i. motor vehicle, or
      ii. trailer having a tow hitch, chassis, axles, wheels and trailer lamps and reflectors required by AMC chapter 9.44;
   or
   2. a pushcart as defined in AMC 16.60.050 and that satisfies the requirements of AMC 16.60.230E.

C. The unit shall obtain approval by the Department of Health and Human Services.

D. The unit shall not be connected to utilities, except electrical.

E. A licensed electrical contractor shall obtain a permit to provide electrical service and/or connection to the unit. The electrical connection shall consist of an approved flexible cord, attachment cap and receptacle approved for the location.

F. The unit shall comply with the National Electrical Code as noted by NEC 550.4 (A). A code compliance inspection shall be performed and necessary corrections made before power is connected. A licensed electrical contractor shall obtain a permit and make the corrections. The permit for providing electrical service and/or connection may include the corrections when performed by the same contractor.

G. Service equipment located adjacent to vehicle lanes or the unit shall be provided with bollards or other substantial protective barriers.
H. The unit shall not reduce the required number of parking spaces at existing facilities.

I. Mobile food units shall be an allowable use in the zoning district where the unit is proposed to be located.

J. An Anchorage Fire Department (AFD) approved, currently serviced fire extinguisher shall be located inside the unit.

K. Propane tanks shall be protected from vehicle impact and shall be located in accordance with the fire code.

L. The unit location shall not impact fire lanes or emergency vehicle access to nearby structures.

M. The unit location is subject to approval by fire plan review and traffic engineering.

N. Public occupancy shall not be allowed inside the unit. The unit may be occupied by the owner and employees only.

Units that do not meet all of these requirements shall be considered a structure and require a building permit in accordance with this code.

23.10.104.4.1 Application requirements. The following items are required at the time of the permit application:

A. A completed commercial permit application.

B. A site plan showing where the unit will be located.

C. Approval from the Department of Health and Human Services for compliance with requirements of AMC 16.60.

D. A current copy of the State of Alaska vehicle or trailer registration, if the structure is not a pushcart.

23.10.104.5 Retrofit permits. Retrofit permits are limited to projects involving electrical, plumbing and mechanical installations where engineering is not required by state law. Retrofit permits shall not be used on projects involving work requiring a building permit or projects requiring a change of use Permit. Electrical, plumbing and mechanical retrofit permits may be used on the same project. Plan review is not required. Retrofit permits are limited in scope-of-work as follows:

A. One new 20 amp circuit having no more that six general purpose receptacles or light fixtures.

B. No more than six general purpose receptacles or light fixtures
addicted to one or more existing 20 ampere circuits.

C. One 20 amp circuit for a sign.

D. An electrical, plumbing or mechanical alteration to a residential building containing 4 or fewer dwelling units.

E. An electrical, plumbing or mechanical alteration to a commercial building or a residential building containing more than 4 dwelling units where the scope of work is sufficiently minor to allow a determination that engineering is not required. Pre-approval by a plan review engineer is required.

F. The like for like replacement of plumbing, mechanical and electrical equipment, fixtures and appliances.

Mechanical, plumbing and electrical installations exceeding the above listed parameters generally require engineering in accordance with state law. A commercial alteration permit is required in lieu of a retrofit permit when engineering is required.

23.10.104.6 Public service utilities. A permit shall not be required for the installation, alteration, or repair of generation, transmission, distribution or metering or other related equipment under the ownership and control of public service utilities by established right.

23.10.104.7 Permit application requirements. To obtain a permit, the applicant shall first file an application on a form furnished by the department. The application shall:

A. Identify and describe the work covered by the permit for which application is made.

B. Describe the land on which the proposed work is to be done by legal description, tax parcel number, or street address to readily identify and definitely locate the proposed building or work.

C. Indicate the use or occupancy for which the proposed work is intended.

D. Be accompanied by plans, diagrams, computations and specifications, and other data as required in this code.

E. State the valuation of the proposed work. Valuation shall be as defined in 23.10.102.1 and 23.10.104.15.1.

F. Be signed by the owner, contractor, Architectural or Engineering licensed professional, or the owner's authorized agent. If authorized agent will be signing, a notarized statement from the owner, naming authorized agent to be acting on the owners'
behalf shall be submitted.

G. Give such other data and information as may be required by the building official.

H. If the work under application is an alteration to or construction of a privately owned residential structure of one to four units, used or intended to be used as a human dwelling, proof of a residential contractor endorsement issued by the State of Alaska shall be provided if required by value of alteration. Exception: an individual performing work on their own residence, as described in 23.10.105.1.B. shall not be required to submit a residential endorsement.

I. For all Change of Use, Alteration, and Additions the applicant must submit the number of inspections they estimate they will need. Fees for these types of permits will be based upon the number of inspections.

23.10.104.8 Design professional in responsible charge. When it is required that documents be prepared by a registered design professional, the building official shall be authorized to require the owner to engage and designate on the building permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the owner shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered professional in responsible charge. The building official shall be notified in writing by the owner if the registered design professional in responsible charge is changed or is unable to continue to perform the duties. Any changes to design documents following designation of a new design professional in responsible charge shall be done in strict accordance with State of Alaska statutes and regulations governing architects, engineers, and land surveyors. The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building. Where structural observation is required by the building code, the inspection program shall name the individual or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur (see also Special Inspection Program).

23.10.104.9 Optional residential single-family and two-family plan review. For residential single-family or two-family permit applications, the permit applicant shall have the qualified option for independent reviewing professionals, as described in subsection B below, to accept responsibility for plan review and building code compliance for the permit. For permit applications submitted under this provision, it shall not be the responsibility of the building official or any other departments
of the municipality to review the application for compliance with applicable building codes under review by the independent reviewing professionals. The building official shall conduct or cause to be conducted reviews for zoning, planning, address, flood, NPDES, storm water and any other reviews necessary for the project.

A. The applicant's exercise of the option and the identity of the independent reviewing professionals shall be designated on the building permit application in accordance with this section.

B. Plan review shall be conducted by independent reviewing professionals as follows:

1. Review of the structural plans and calculations shall be conducted by a professional engineer currently registered by the State of Alaska Board of Registration for Architects, Engineers and Land Surveyors as either a structural engineer or a civil engineer. A reviewing civil engineer must be able to demonstrate experience in structural engineering.

2. Review of the plans for fire code compliance and building safety shall be conducted by either (i) an individual certified as a Building Plans Examiner or Residential Plans Examiner by the International Code Council (ICC), or (ii) a professional architect registered by the State of Alaska Board of Registration for Architects, Engineers and Land Surveyors.

3. The structural review and the review for fire code compliance and building safety may be conducted by a single individual if that individual meets the certification requirements set forth in both B.1 and B.2, above.

4. No application will be accepted where an independent reviewing professional has also served as the designer or builder of the project.

C. A complete building permit application reviewed pursuant to this section shall include the following materials:

1. Two complete sets of building plans;

2. Two plot plans;

3. A completed storm water discharge permit application;

4. A letter of review signed by the appropriate independent reviewing professional demonstrating experience in structural engineering certifying structural plans,
calculations, fire code compliance, building safety, accepting responsibility for plan review, as required by this section;

5. A signed release of liability, as required by this section; and


Supporting calculations and computations are not required to be submitted with the building permit application but shall be kept on file by each independent reviewing professional until issuance of a final certificate of occupancy for the building.

D. The building official shall confirm the application includes the materials required by 23.10.104.9 and 23.10.104.10. If complete, the application shall be accepted and the building official shall issue the permit provided that:

1. The permit application demonstrates the plans and specifications for residential single-family and/or two-family dwellings have been reviewed by independent reviewing professionals. Each reviewing professional must submit a signed letter of review with the plans describing the scope of their review and including the details of their credentials to conduct such review. Each reviewing professional must include their registration number and the related expiration date.

2. The permit applicant and the independent reviewing professionals confirm in writing that the independent reviewing professionals accept responsibility for the plan review.

3. Each independent reviewing professional either:

   a. Submits to the building official, in concert with the letter of review, a waiver of claims against the Municipality of Anchorage for all damages, losses and expenses, arising out of or resulting from the performance of the review, to the fullest extent permitted by law and on a form satisfactory to the Municipality of Anchorage Office of Risk Management, executed by (i) the reviewing professional; (ii) the building construction contractor; and (iii) the current owner of the property and any party under contract to purchase the property within a year of its completion; or
b. Provides proof that they maintain professional liability insurance meeting each of the following requirements:

   i. Plan review and building code compliance review under Anchorage Municipal Code are within the scope of the professional liability insurance coverage.

   ii. The professional liability insurance provides a minimum of $250,000 in coverage.

   iii. Coverage extends for no less than two years from completion of the project construction. If the existing policy does not extend for the duration of this period, the independent reviewing professional must specify in his or her reviewing letter when the policy expires and that it will be renewed to ensure continuous coverage for no less than two years from the date of completion.

4. Each independent reviewing professional indemnifies, holds harmless and states they shall defend the Municipality of Anchorage from and against all claims, damages, losses and expenses, including but not limited to attorney fees and costs, arising out of or resulting from the performance of the review, to the fullest extent permitted by law.

E. Reviewing professionals do not have authority to approve code modifications or alternative materials, designs, and methods of construction and equipment as discussed in this code. Any request for consideration of code modifications or alternative materials, designs, and methods of construction and equipment shall be submitted to the building official for approval prior to or along with the permit application under the optional process.

F. The building official may revoke the privilege afforded by this section of any individual who displays incompetence or lack of knowledge in matters relevant to the design and construction of one and two family dwellings, or who commits fraudulent acts.

23.10.104.10 Submittal documents. Construction documents, statement of special inspections, structural observation programs, geotechnical reports and other data shall be submitted in accordance with the policies prescribed by the building official. The construction documents shall be prepared by a registered design professional where
required by statutes of the Municipality in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

A. **Exceptions:**

1. The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

2. Only one copy of specifications and calculations are required.

**23.10.104.10.1 Information on construction documents.**
Construction documents shall be legible, dimensioned and drawn upon suitable material. Information on plans shall be organized in a logical manner to be readily understandable by contractors, plan reviewers and inspectors. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that the work will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official. Extraneous details or other information not related to the project shall not be included on the drawings.

Plans for buildings of other than Group R, Division 3 and Group U Occupancies shall indicate how required structural and fire-resistant integrity will be maintained where penetrations are made for electrical, mechanical, plumbing and communication conduits, pipes and similar systems.

**23.10.104.10.2 Fire protection system shop drawings.** Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the fire code.

**23.10.104.10.3 Means of egress.** The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. In other than occupancies in Groups R-3, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.
23.10.104.10.4 Exterior envelope. Construction documents for all buildings shall describe the exterior wall and roof envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

The construction documents shall include manufacturer's installation instructions providing supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior envelope. The supporting documentation shall fully describe the exterior system which was tested, where applicable, as well as the test procedure used.

23.10.104.10.5 Site plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades, proposed finish grades and elevations at all lot corners, based on ties to a recovered Benchmark identified in the MOA Benchmark Network. Assumed elevations shall only be allowed with prior written consent of the department. The site plan shall also show existing and proposed drainage patterns, identifying any location where drainage is proposed to be transported off-site; and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished, and the location and size of existing structures and construction to remain on the site or plot. Any changes to existing topography must also conform to the requirements of Chapter 23.105, Grading, Excavation and Fill, and Landscaping. The building official is authorized to waive or modify the requirement for a site plan when the application for permit is for alteration or repair or when otherwise warranted.

23.10.104.11 Deferred submittals. For the purposes of this section, deferred submittals are defined as those portions of the design not submitted at the time of the application, and to be submitted to the building official within a specified period.

Deferral of any submittal items shall have the prior approval of the building official. The registered design professional in responsible charge shall list the deferred submittals on the construction documents
for review by the building official.

Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official with a notation indicating the deferred submittal documents have been reviewed and been found to be in general conformance to the design of the building. The notation must be clearly outlined on the documents, and must be accompanied by the signature of the registered design professional in responsible charge. The deferred submittal items shall not be installed until the design and submittal documents are approved by the building official. Copies of the approved deferred submittal documents shall be kept on site for reference by inspectors.

23.10.104.12 Amended construction documents. Work shall be installed in accordance with the approved construction documents, and any changes made prior to or during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents through a change order.

23.10.104.13 Retention of construction documents. The building official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. One set of approved plans, specifications and computations shall be retained in the official records for the period required for retention of public records, and one set of approved plans and specifications shall be returned to the applicant and shall be kept on the site of the building or work at all times while the work authorized thereby is in progress. The building official will provide digital long term retention documentation as per approved retention plan adopted by the Assembly including but not limited to the following items: Applications, permits, certificates issued, fees collected, reports of final inspections, and all notice and orders.

23.10.104.14 Document approval and permit issuance.

23.10.104.14.1 Document examination and approval. The application, plans, specifications, computations and other data filed for permit shall be reviewed by the building official. Such plans may be reviewed by other departments of the Municipality to verify compliance with any applicable laws under their jurisdiction. Once all documents are reviewed and approved by all departments of the Municipality, the building official shall stamp the approved plans "Reviewed for Code Compliance". Such approved plans shall not be changed, modified or altered without authorization from the building official, and all work regulated by this code shall be done in accordance with the approved plans. Once documents are approved, all changes made shall require a Change Order or Field Change.
For applications submitted under 23.10.104.9, when the building official finds the application complete in meeting the requirements for acceptance of plan review and building code compliance responsibilities by the independent reviewing professional(s), the building official shall stamp the accepted plans “Accepted”. Once documents are accepted, all changes made shall require documentation of the changes by Change Order or Field Change, showing review and approval by the independent reviewing professional and acceptance by the building official. One set of construction documents so reviewed or accepted shall be retained by the building official. The other sets shall be returned to the applicant, and one set shall be kept at the site of work and shall be open to inspection by the building official or a duly authorized representative.

23.10.104.14.2 **Express plan review.** Express plan review is an option exercised by the permit applicant to expeditiously resolve plan review comments.

A. *Limitation:* The express plan review process may be requested any time after the initial plan review is completed.

B. *Eligible Projects and Applicable Reviews:* Any permit or plan review discipline, including architectural, structural, plumbing, mechanical, electrical, fire, land use, traffic engineering, NPDES, right of way, flood hazard and Project Management and Engineering (PM&E) reviews. In addition, express plan review may be used for change orders and deferred submittals. Express plan review may be used on phased projects. For example the structural, architectural and civil plans may be submitted for review prior to the plumbing, mechanical and electrical plans, and partial permits such as a footing and foundation permit may be issued.

C. *Submittal Requirements:* Complete the express plan review application and schedule the plan review meeting as described below.

D. *Plan Review Meeting:*
1. The plan review meeting is the basis of the express plan review process.
2. The permit applicant schedules the plan review meeting through the Development Services secretary at 343-8301. The applicant specifies which disciplines are required to attend the meeting. All applicable design professionals and municipal plan reviewers are required to attend
3. The municipality reviews plans and supporting documentation during the meeting.

4. The meeting is intended to be a collaborative process between the design professionals and plan reviewers. The objective will be approval of code compliant construction documents.

5. Required corrections of a minor nature can be made to the plans and/or supporting documentation during the meeting. The design professional may either mark-up the plans by hand or submit new plans at a later time with the appropriate revisions. Changes made by hand shall be bubbled, initialed and dated by the design professional.

6. Corrections requiring redesign and/or substantial plan revisions shall be made outside the scope of the meeting.

7. Additional plan review meetings may be scheduled at the applicant’s discretion as necessary to review revisions and obtain approval.

E. **Fee**: The express plan review fee is listed in Table 3-B. The fee is in addition to all other applicable permit fees. The fee applies to plan review meeting time and does not apply to plan review conducted outside the scope of the meeting. Payment is due prior to obtaining a permit.

[F. **Availability**: Express plan review services are based on the availability of plan review staff. Availability is determined by the building official. Due to limited resources, the department can make no guarantee on the availability of express plan review services.]

23.10.104.14.3 **Previous approvals.** This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

23.10.104.14.4 **Expiration of plan review.** Applications for which no permit is issued within 360 days following the date of application shall expire by limitation, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days, on written request by the applicant showing circumstances beyond the control of the applicant prevented
action from being taken. An application shall not be extended if
this code or any other pertinent laws or ordinances are amended
subsequent to the date of application. In order to renew action
on an application after expiration, the applicant shall resubmit
plans and pay a new plan review fee.

23.10.104.14.5 Phased permit approval. The building official
may issue a permit for the construction of part of a building,
structure or building service equipment before the entire plans
and specifications for the whole building, structure or building
service equipment are submitted or approved, provided
adequate information and detailed statements have been filed
complying with all pertinent requirements of the technical codes.
The holder of such permit shall proceed with the approved work
at the holder's risk, without assurance the permit for the entire
building, structure or building service will be granted. This
approval must be approved by the building official and shall
require written documentation prior to any work being done.

23.10.104.14.6 Permit issuance. If the building official finds
the work described in an application for a permit and the plans,
specifications and other data filed conform to the requirements
of this code, the technical codes, and other pertinent laws and
ordinances, and all permit fees have been paid, the building
official shall issue a permit to the owner, contractor or authorized
agent.

[A. Exceptions:

1. The building official may require a permit applicant
to obtain a Certificate of Occupancy for a previous
permit with an expired Conditional Certificate of
Occupancy prior to issuing another permit.

2. The building official may require a permit applicant
to reopen an expired permit and obtain a
Certificate of Occupancy or Certificate of
Completion for the expired permit prior to issuing
another permit.

3. The building official may require a permit applicant
to remedy a Stop Work Order, Notice of Violation,
or Notice of Permit Requirement on the applicant's
other project or permit prior to issuing another
permit.

4. The building official may require a permit applicant
to remedy a drainage problem on the applicant's
previous expired or unexpired permit prior to
issuing another permit.
5. The building official may require a permit applicant to remedy water accumulation in a crawlspace of a previous permit prior to issuing another permit.

6. The building official may require a permit applicant to remedy unresolved items associated with a development agreement prior to issuing a building permit.

7. The building official may require a permittee to obtain an approved final inspection report for an expired retrofit permit prior to issuing another retrofit permit.

23.10.104.14.7 Validity of permit. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the Municipality. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the Municipality shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the building official from requiring the correction of errors in the construction documents and other data. The building official is also authorized to prevent occupancy or use of a structure in violation of this code or of any other ordinances of the Municipality.

23.10.104.14.8 Expiration. Every permit issued by the building official under the provisions of the technical codes shall expire by limitation and become null and void, if the building or work authorized by the permit is not commenced within 360 days from the date of the permit issuance, or if the building or work authorized by the permit is suspended or abandoned at any time after the work is commenced for a period of 360 days. For the purposes of this section, work shall be deemed suspended or abandoned if no inspections have occurred within 360 days. If the suspension or abandonment has not exceeded 18 months the work may be recommenced upon application for reactivation of the permit. For reactivation, the building official shall have the option to either extend the previous plan approval at no additional charge or, if a code change cycle has ensued in the interim, require the applicant to revise the drawings accordingly and pay a new plan review fee. For reactivation, the permit fee shall be one of half the amount required for a new permit for such work. In order to renew action on a permit abandoned or suspended more than 18 months, the building official may exercise the same option described above regarding plan review, but the permittee shall pay a new full permit fee.

Exception: When it can be demonstrated that a substantial
amount of the previously permitted work has been inspected and approved, the building official may allow the permit to be reopened and final inspections to be conducted to close out the permit. In these cases, the permittee shall pay an additional amount for review of the project file and shall pay for any allowed remaining required inspections on a per-inspection basis. This exception will only be granted after review of the permit history by the building official. The decision to grant this exception is solely at the building official's discretion.

A permittee holding an unexpired permit may apply for an extension when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 360 days upon written request by the permittee showing circumstances beyond the control of the permittee prevented action from being taken. Permits shall not be extended more than one 360 day period, unless otherwise approved by the building official.

Unless the property has a valid Conditional Use approved by the Planning & Zoning Commission which sets a longer period of time for completion, grading permits in residential zoned areas shall be completed within two years of permit issuance. Once a grading permit expires, a stop work order shall be issued, investigative fees shall be paid to reactivate the permit, and a bond posted. The bond shall be no less than the valuation to complete the work. The bond shall be forfeited if work is not completed within 180 days from the permit reactivation date.

**23.10.104.14.9 Suspension or revocation.** The building official may, in writing, suspend or revoke a permit issued under the provisions of this code and the technical codes when the permit is issued in error or on the basis of incorrect information supplied, or in violation of an ordinance or regulation or the provisions of these codes.

**23.10.104.14.10 Revising application (removing permittee).** In order to remove the permittee on a specific permit from responsibility of completing the project and obtaining a certificate of occupancy, the "Formal Transfer of Responsibilities" form shall be completed and signed by the Owner and permittee being removed.

**23.10.104.11 Securing Suspended Work.** If activity associated with a permit is suspended for a prolonged period the site shall be secured against casual public access.

**23.10.104.15 Fees.** Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the fee schedule
adopted by the Municipality.

23.10.104.15.1 Valuation. Valuation is determined as follows:

A. The valuation used to compute fees for new construction shall be based on the Building Valuation Data Chart in the most recent August issue of the Building Safety Journal as published by the International Code Council. The regional multiplier shall be 1.3. The rates in the August issue shall become effective on the following January 1st and continue to January 1st of the following year. The valuation shall be calculated using the dollar per square foot method. The area of the building shall be the gross floor area; the total horizontal area of all floors of a building, measured between exterior faces of exterior walls, including interior balconies, mezzanines, stairwells, elevator shafts, ventilation shafts, etc., but excluding area without floor structure in atria. The area located under canopies, eaves and overhangs extending more than 4 feet from the building perimeter shall be included in the building area. The area under free-standing canopies along with the occupancy classification, shall be used to determine valuation.

B. The valuation used to compute fees for projects other than new construction calculated under item 23.10.104.15.1 A. shall be provided by the permit applicant and verified by the building official. The valuation shall be the total cost required to complete the project presuming all labor will be compensated and all materials will be purchased at fair market value. Where volunteer labor or donated materials are being contributed, the valuation shall nevertheless include the fair market value of donated labor and materials. The building official reserves the right to require additional documentation to verify valuation.

23.10.104.15.2 Plan review fees.

A. When documents are submitted in accordance with subsection 23.10.104.10, plan review fees shall be paid at the time of document submittal. Plan review fees shall be calculated in accordance with Table 3-B.

Exception: A Fire Department Plan Review fee is not required for detached one and two family dwellings.

B. Plan review fees are in addition to permit fees.

C. Where plans are incomplete or changed so as to require
additional plan review, an additional plan review fee shall be charged at the rate shown in Tables 3-B of this code.

D. Structures that are identical to a previously approved and permitted structure may qualify for "pre-approved" status for purposes of the plan review fee assessment. The plans must be submitted within the same code cycle. Each identical structure shall be issued a separate building permit.

E. Plan review fees for projects submitted under the optional process described in section 23.10.104.9 qualify for a reduced fee, as noted in Table 3-B.

23.10.104.15.3 Permit fees. Permit fees depend upon the type and extent of construction. Some projects may be required to pay for more than one type of permit fee, e.g., a building containing an elevator will require a general building permit and an elevator permit. The fee for each permit shall be as set forth in Section 23.10 Tables 3-A through 3-N. Where a technical code is adopted by the Municipality for which no fee schedule is shown in this code, the fee required shall be in accordance with the schedule established by the Assembly. Permit fees are calculated as follows:

A. Permit fees for new construction are based on valuation determined in accordance with 23.10.104.15.1(A). There are no additional permit fees for plumbing, mechanical and electrical permits.

B. Permit fees for additions, alterations and change of use permits are not based on valuation. The fees are based on an estimated number of inspections for all disciplines provided by the permit applicant. The building official will assist the permit applicant with the initial estimate. The building official reserves the right to correct the estimate based on historic information for similar projects. A refund will be granted for inspections not used. Additional fees are required for inspections exceeding the number purchased.

23.10.104.15.4 Investigation fees and fines:

23.10.104.15.4.1 Investigation. Whenever work for which a permit is required by this code is commenced without first obtaining a permit, a code compliance inspection for one or more disciplines may be required before a permit is issued for such work.

23.10.104.15.4.2 Fee. When work is begun without
proper permits, an investigation fee at a rate shown in Table 3-M, in addition to the permit fee, may be collected whether or not a permit is then or subsequently issued. The payment of the investigation fee shall not exempt an applicant from compliance with all other provisions of this code nor from the penalty prescribed by law. The building official may waive the investigation fee for a first offense. No individual or company granted a waiver under this section shall be afforded additional waivers for future offenses. When the building official has reasonable cause to believe an inspection fee waiver is requested by a person to avoid payment of the fee by another person or company who was previously granted a first offense fee waiver, the building official may deny the waiver request.

23.10.104.15.5 Fee refunds.

A. The building official shall refund a fee that is paid or collected in error.

B. The building official may refund up to eighty percent (80%) of the permit fee paid when a permit is cancelled.

**Exception:** The building official may grant a full refund of the permit fee if no work has been done by the Municipality, and the permittee shows the cancellation of the permit was beyond the permittee’s control.

C. The building official may refund the full plan review fee if the permit is cancelled before any review has begun.

D. The building official shall not refund any fee unless it is requested in writing by the original permittee.

E. Permits expired by more than 360 days are not entitled to a refund.

Section 105 Licensing requirements.

23.10.105.1 General provisions.

A. **General.** Except as allowed under paragraphs B. and C., no person shall administer or perform work regulated by this code except a person holding a valid, unexpired, and unrevoked contractor’s license and/or a certificate of qualification as required by this code and state law.

B. **Contractor Required:** All work regulated by this code shall be administered by contractors licensed by the state of Alaska and
the municipality. This licensing requirement applies regardless of whether the work is exempt from the requirement for a permit.

**Exceptions:**
1. A property owner may act as a contractor as follows:
   a. An owner may construct a maximum of one structure every two years. The start date of the two year time limitation shall be the date of the certificate of occupancy. A permit to construct an additional structure cannot be issued during the two year time limitation.
   b. An owner may administer alterations, including additions, to an existing structure.
   c. An owner of an individual dwelling unit located in a multi-dwelling unit structure may administer alterations within their dwelling unit.

2. A tenant may administer alterations within their lease space.

C. **Performing Work:** All work regulated by this code shall be performed by individuals appropriately licensed in the relevant trade in accordance with state law and this code.

**Exceptions:**
1. A property owner may perform work as follows:
   a. The owner of a detached single-family home may perform any type of work regulated by this code on the structure as long as they reside in the home.
   b. The owner of a detached duplex (two dwelling units) may perform any type of work regulated by this code on the structure as long as they reside in one of the units.
   c. The owner of a commercial building and their employees may perform maintenance, repair and alteration work (excluding electrical, mechanical and plumbing work that requires a permit in accordance with this code) on said structure.

D. It shall be unlawful for any person to conduct, carry on or engage in the business of, or act in the capacity of a contractor in a trade covered by this code without first being issued a valid municipal contractor's license, and when required, a certificate of qualification.

E. An applicant for a building construction contractor's license may be requested to provide a copy of the construction contractor's
bond required by state law with the application and shall show proof the bond is current and in effect.

F. It shall be unlawful for any person to labor in the capacity of a plumber, gas fitter or sheetmetal journeyman without first being issued a valid journeyman certificate of qualification by the municipality.

G. Any contractor or journeyman doing gas piping, plumbing or sheet metal work covered by this code shall be tested and licensed by the municipality.

H. It shall be unlawful to labor as a plumber or sheet metal trainee without first being issued a valid trainee certificate of qualification by the municipality.

I. It shall be unlawful for any person acting in the capacity of a contractor in a trade covered by this code, or as the responsible agent, manager, supervisor, superintendent or foreman, to knowingly or willfully order, instruct or permit an employee, agent or person under supervision or control to do an act violating the certificate of qualification requirements set forth in subsections F. or H.

J. The ratio of individuals holding sheet metal or plumber trainee certificate of qualification cards shall not be more than two for every certified journeyman on a job site.

23.10.105.2 Certificate of qualification.

23.10.105.2.1 Application for certificate of qualification, gas piping, plumbing and sheet metal.

A. Every person applying for a gas piping, plumbing or sheet metal contractor certificate of qualification shall complete the application form, pass the required test and pay the required fee. If a certificate is not obtained within 90 days of passing the exam, the applicant may be required to retest.

B. Every person applying for a gas fitter, plumber or sheet metal journeyman certificate of qualification shall complete the application form, pass the required test and pay the required fee. If a certificate is not obtained within 90 days of passing the exam, the applicant may be required to retest.

C. Every person applying for a plumber or sheet metal trainee certificate of qualification shall complete the application form and pay the required fee.
D. In accordance with state law, no person shall qualify as administrator under more than one license. If the relationship of the administrator with the firm or corporation applicant is terminated, the license shall become void within 60 days unless another administrator is qualified by proper authority. Licenses issued to applicants are nontransferable.

E. Applicants for a plumbing or sheetmetal contractor certificate of qualification shall provide evidence of at least six years or 12,000 hours minimum of previous practical experience. Applicants for a gas piping contractor certificate of qualification shall provide evidence of at least four years or 8,000 hours minimum of previous practical experience. Credit may be allowed for each year, and fraction thereof, of attendance at a recognized school, if the course taken by the applicant was primarily mechanical and directly related to the particular skill or trade being applied for. No credit shall be allowed any applicant for experience gained while doing any mechanical work ordinarily incidental to or associated with non-mechanical occupations, as determined by the building official.

F. Applicants for a plumbing contractor or plumber journeyman certificate of qualification shall provide a copy of a current Alaska Department of Labor Certificate of Fitness Plumber Journeyman card. Applicants for a plumber trainee certificate of qualification shall provide a current copy of an Alaska Department of Labor Certificate of Fitness card.

G. Applicants for a plumber or sheet metal journeyman certificate of qualification shall provide evidence of at least four years or 8,000 hours minimum of previous experience personally installing, fabricating, altering and repairing work covered by the particular skill or trade being applied for. In lieu of previous practical experience, credit may be allowed for each year, and fraction thereof, of attendance at a recognized school if the course taken by the applicant was primarily mechanical and directly related to the skill or trade being applied for. No credit shall be allowed any applicant for experience gained while doing any work ordinarily incidental to or associated with non-mechanical occupations as determined by the building official. In lieu of the above qualifications, an applicant may submit proof of successful completion of at least a four-year or 8,000 hours minimum apprenticeship program registered and approved by the U. S.
Department of Labor, Bureau of Apprenticeship and Training, as acceptable qualifications. Journeyman and trainee plumbers shall have a state license.

H. Applicants for a plumber or sheet metal trainee certificate of qualification are not required to have prior experience, but shall provide evidence of working for a properly certified contractor and be enrolled in an approved apprenticeship program.

I. Applicants for a journeyman gas fitter certificate of qualification shall provide evidence of two years or 4,000 hours minimum previous experience in the gas piping field, and shall provide a current copy of an Alaska Department of Labor Certificate of Fitness Gas Fitter card.

23.10.105.2.2 Issuance of certificate of qualification, gas piping, plumbing and sheet metal.

A. A sheet metal, plumbing, or gas piping contractor certificate of qualification shall be issued to a person who makes application for such certificate, provides evidence of the required experience and training, successfully passes the examinations and pays the required fee.

B. A sheet metal, plumber, or gas fitter journeyman certificate of qualification shall be issued to a person who makes application for such certificate, provides evidence of the required experience and training, successfully passes the examinations, and pays the required fee.

C. A plumber or sheet metal trainee certificate of qualification shall be issued to a person who meets the application requirements for such certificate and pays the required fee.

D. Every person required to have a certificate of qualification shall obtain such certificate either:

1. Within 90 days of passing the required test; or

2. Within 30 days of the expiration date shown on the certificate, except if the certificate has been suspended or revoked.

E. Certificates of qualification issued under this title are valid for a maximum of two years, and expire on February 14 of even calendar years.
23.10.105.2.3 Certificate of qualification, re-examination, gas piping, plumbing and sheet metal.

A. Any person who fails to pass the examination may apply for re-examination on the next available test date.

B. Fees for re-examination will be the same as initial examination fees.

23.10.105.2.4 Expiration of certificate of qualification, gas piping, plumbing and sheet metal.

A. Every certificate of qualification shall remain in force and effect until its expiration date, unless canceled or revoked.

B. Certificates of qualification expired beyond 30 days but less than two years may be renewed by paying the prescribed fee. This fee shall be retroactive to the expiration date of the last certificate issued. In addition, an administrative late fee shall be charged.

C. Certificates of qualification expired by two or more years shall not be renewed, and the person shall be required to re-take the test required for all new applicants.

23.10.105.2.5 Backflow assembly tester certificate of qualification.

A. A backflow assembly tester certificate of qualification shall be issued to every person who makes application for such certificate, attends the four-day Backflow Assembly Certification class sponsored by the Municipality, successfully passes both the written and the hands-on examination, and pays the required fee. The certification is valid for three (3) years and may be extended for one additional year with approval of the building official. An applicant may submit proof of attendance of a similar class and of successfully passing the required examination(s) of the similar class, provided further the similar class is recognized as equal to the aforesaid requirement(s), as determined by the building official.

B. A person who wishes to maintain a valid certificate of qualification as a Backflow Assembly Tester shall - every three (3) years from the date of original issuance - attend an 8-hour re-certification class, successfully pass both the written and hands-on examinations, and pay the required fee.
23.10.105.2.6  Revocation of certificate of qualification.

A. The building official may cancel or revoke any certificate of qualification issued to any person, if such person later shows incompetence or lack of knowledge in matters relevant to such certificate or if such certificate was obtained by fraud. If the certificate of qualification of any person is canceled or revoked, another certificate shall not be granted to the person within 12 months after the date of cancellation or revocation.

B. Certificates of qualification are not transferable from one person to another, and the lending of any certificate or the obtaining of permits thereunder for any other person shall be cause for revocation.

C. The building official may require retesting of any certificate of qualification holder if such person shows incompetence or lack of knowledge in matters relevant to such certificate. Failure to pass a retesting shall result in revocation of the certificate. The person may apply for retesting after 30 days have elapsed.

23.10.105.2.7  Right to inspection, certificate of qualification or fitness. Municipal inspectors may contact any worker performing work for which a certificate of fitness is required (under AS 18.62.010) or a certificate of qualification is required under this code and request the person to exhibit the person's certificate. The inspector may immediately serve upon the person a notice to cease any further work in that occupation until a State of Alaska certificate of fitness and/or a municipal certificate of qualification is displayed.

Section 106  Inspection requirements.

23.10.106.1  General.

A. Construction or work for which a permit is required shall be subject to inspection by the building official and the construction or work shall remain accessible and exposed for inspection purposes until approved by the building official. In addition, certain types of construction shall have special inspection, as specified in Section 106.7, which is a requirement of the owner and paid for by the owner. Note: The special inspector shall not receive compensation from the contractor of record.

B. Approval, as a result of an inspection, shall not be construed as an approval of a violation of the provisions of this code or other ordinances of the Municipality. Inspections presuming to give
authority to violate or cancel the provisions of this code or other ordinances shall not be valid.

C. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the building official nor the Municipality shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

D. An as-built survey may be required by the building official prior to completion of a development to verify a structure is located in accordance with this code, land use regulations and the approved plans.

E. The building official may require a survey showing as-built contours of a fill or excavation to verify the work conforms to this code, land use regulations and the approved plans.

23.10.106.2 Inspection requests.

A. It shall be the duty of the person doing the work authorized by the permit to notify the building official such work is ready for inspection. The building official may require every request for inspection be filed at least one working day before such inspection is desired. Such request may be via Building Safety online services, in writing or by telephone.

B. It shall be the duty of the person requesting any inspections required either by this code, or the technical codes, to provide safe access to and means for inspection of the work.

23.10.106.3 Approval required.

A. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction is satisfactory as completed or shall notify the permit holder or an agent of the permit holder wherein the same fails to comply with this code. Any portions not in compliance shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

B. There shall be a final inspection and approval for each relevant discipline associated with the permitted building or structure before the building or structure shall be declared completed and ready for occupancy and use.

C. Retrofit permits are completed and closed when the inspector issues an approved final inspection report. A Certificate of
Completion is not required but can be provided upon request.

23.10.106.4 Required inspections. The building official shall publish and keep current an "Inspection Schedule" for required inspections for various types of construction. This schedule shall be available on the department website and by hard copy at the Development Services public counter.

23.10.106.5 Other inspections. In addition to the called inspections specified above, the building official may make or require other inspections of construction work to ascertain compliance with the provisions of this code or technical codes and other laws enforced by the code enforcement agency.

23.10.106.6 Re-inspections.

A. A re-inspection fee may be assessed for each inspection or re-inspection when such portion of work for which inspection is called is not complete or when corrections called for are not made. Fees shall be in accordance with Table 3-C of this code. This section is not to be interpreted as requiring re-inspection fees the first time a job is rejected for failure to comply with the requirements of the technical codes, but as controlling the practice of calling for inspections before the job is ready for such inspection or re-inspection.

B. Re-inspection fees may be assessed when the approved plans are not readily available to the inspector or for failure to provide access on the date inspection is requested.

23.10.106.7 Special inspections and structural observation. Special inspection and structural observation requirements shall be in accordance with International Building Code Chapter 17 and the adopted Special Inspection Program.

Section 107 Certificates of Occupancy.

23.10.107.1 Use or occupancy.

A. Buildings or structures shall not be used or occupied nor shall a change in the existing use or occupancy classification of a building or structure or portion thereof be made until the building official issues a Certificate of Occupancy as provided herein.

B. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of this code or other ordinances of the Municipality. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinance shall not be valid.
23.10.107.2 Change in use. Changes in the character or use of a building or portion of a building shall not be made except as specified in this code.

23.10.107.3 As-built survey. Unless otherwise approved by the building official, an as-built survey shall be provided for new structures, moved structures and additions to existing structures.

23.10.107.4 Certificate of Occupancy issuance.

A. After the building official and other authorized municipal code enforcement authorities inspect the building, structure and associated land use and find no violations of the provisions of this title or other laws enforced by municipal code enforcement agencies, and upon approval of an as-built survey, the building official shall issue a Certificate of Occupancy containing the following:

1. The building permit number;
2. The address of the building;
3. The name and address of the owner;
4. A description of the portion of the building for which the certificate is issued; and
5. A statement that the described portion of the building has been inspected for compliance with the requirements of this code for the group and division of occupancy and the use for which the proposed occupancy is classified.

23.10.107.5 Conditional Certificate of Occupancy issuance.

A. If the building official finds substantial hazard will not result from occupancy of a building or portion thereof before the same is completed, a Conditional Certificate of Occupancy for the use of a portion or portions of a building or structure may be issued prior to the completion of the entire building or structure.

B. Conditional Certificates of Occupancy for exterior work not completed because of weather shall have an expiration date of August 15 of the following year.

C. Expired conditional certificates may prevent the same permittee from receiving additional permits, as outlined in Section 23.10.104.12.5 of this code.

23.10.107.6 Certificate of Completion. A Certificate of Completion may be issued in lieu of a certificate of occupancy for permits that do not involve the construction of occupiable space or a change in occupancy classification, including but not limited to retrofit, reroof, repair and renovation permits.
**23.10.107.7 Failure to obtain a Certificate of Occupancy.** In addition to other penalties and remedies prescribed by this code, the building official may file in the Anchorage District Recorder's Office a certificate describing the property and noncompliance with this code. Failure to obtain a Certificate of Occupancy includes, but is not limited to, the following:

A. A Conditional Certificate of Occupancy that is expired by more than 180 days; or

B. A permit under which work has been performed that is expired by more than 180 days; or

C. Work regulated by this code performed without obtaining the required permit(s).

The responsibility and cost to remedy any conditions necessary to achieve compliance with this code shall not be borne by the Municipality.

**23.10.107.8 Fees.** All permit fees and fines shall be paid prior to obtaining a Certificate of Occupancy, Conditional Certificate of Occupancy or a Certificate of Completion.

**23.10.107.9 Revocation.** The building official may, in writing, suspend or revoke a Certificate of Occupancy issued under the provisions of this title when the certificate is issued in error, or on the basis of incorrect information, or when it is determined the building, structure, land use or portion thereof is in violation of an ordinance, regulation or the provisions of municipal code or state law.

### Section 108 Unsafe buildings, structures, and building service equipment.

**23.10.108.1 General.** See chapter 23.70 Abatement of Dangerous Buildings Code.

#### 23.10. Table 3-A Building permit fees.

<table>
<thead>
<tr>
<th>1. New Construction (Commercial)</th>
<th>Building Permit Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.00 to $500,000</td>
<td>$0.015 * Valuation</td>
</tr>
<tr>
<td>$500,001 to $1,000,000</td>
<td>$0.010 * Valuation</td>
</tr>
<tr>
<td>$1,000,001 to $5,000,000</td>
<td>$0.008 * Valuation</td>
</tr>
<tr>
<td>$5,000,001 and up</td>
<td>$0.006 * Valuation</td>
</tr>
</tbody>
</table>

2. New Construction (Residential) $0.009 * Valuation. The permit applicant receives 23 inspections plus 2 additional inspections for each $100,000 in valuation above $500,000 valuation.
3. Alterations; Additions; Change of Use; (Residential and Commercial) | $75[150] per inspection per ½ hour with a minimum ½[one] hour charge per inspection.

4. Miscellaneous Building Permits
A. Temporary/seasonal building (new) | $1,000
B. Temporary/seasonal building (extension/yearly renewal) | $500
C. Demolition | $150
D. Residential Deck Permit (addition or alteration), Owner/Contractor/permittee shall provide Building Safety with estimated number of inspections required to complete project | $75 per inspection per half hour with a minimum one half hour charge per inspection.
E. Relocatable set-up permits Owner/Contractor/permittee shall provide Building Safety with estimated number of inspections required to complete project | $150 per inspection per hour with a minimum one hour charge per inspection.
F. Mobile food unit | $150 per inspection per hour with a minimum one hour charge per inspection.

23.10. Table 3-B Plan review fees.

<table>
<thead>
<tr>
<th>1. Building Permits Plan Review Fees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Commercial Building Plan Review</td>
<td>0.0031 * Valuation with a minimum of $65</td>
</tr>
<tr>
<td>B. Fire Department Plan Review</td>
<td>0.0011 * Valuation with a minimum of $65</td>
</tr>
<tr>
<td>C. New Commercial Pre-approved Plan Review</td>
<td>0.0017 * Valuation with a minimum of $65 (In lieu of item A. in Table 3-B 1.)</td>
</tr>
<tr>
<td>D. Commercial Land Use Plan Review</td>
<td>0.00075 * Valuation with a minimum of $65</td>
</tr>
<tr>
<td>E. New Commercial/Residential Expedited Plan Review</td>
<td>60% of the building permit fee as calculated in Table 3-A in addition to the applicable fee in Table 3-B</td>
</tr>
<tr>
<td>F. Owner Requested Out-sourcing Plan Review</td>
<td>25% of the building permit fee, in addition to the applicable fee in Table 3-B 1</td>
</tr>
<tr>
<td>G. Residential Building Plan Review</td>
<td>0.005 * Valuation with a minimum of $65</td>
</tr>
<tr>
<td>H. Residential Land Use Plan Review</td>
<td>0.00065 * Valuation with a minimum of $65</td>
</tr>
<tr>
<td>I-1. New Residential Pre-Approved Plan Review</td>
<td>$0.003 * Valuation with a minimum of $65 (In lieu of item G. in Table 3-B 1.)</td>
</tr>
<tr>
<td>I-2. Residential: Single-family and Two Family reviewed by independent reviewing professionals under 23.10.104.7.1.</td>
<td>$0.003 * Valuation with a minimum of $65 (In lieu of item G. in Table 3-B 1.)</td>
</tr>
</tbody>
</table>
### J. Alterations and/or Additions (Residential)
Owner/Contractor/permittee shall provide Building Safety with estimated valuation of entire project

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.005 * valuation with a minimum of $65</td>
<td></td>
</tr>
</tbody>
</table>

### K. Alterations and/or Additions (Residential) Land Use Plan review.
Owner/Contractor/permittee shall provide Building Safety with estimated valuation of entire project

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.00065 * valuation with a minimum of $65</td>
<td></td>
</tr>
</tbody>
</table>

### L. Change of Use (no other work being done) requiring architectural, fire and zoning review.

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$130 per plan review discipline per hour with a half hour minimum per discipline</td>
<td></td>
</tr>
</tbody>
</table>

### M. Express Plan Review

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$200 per hour per discipline with a half hour minimum per discipline, in addition to all applicable fees including the base plan review fee</td>
<td></td>
</tr>
</tbody>
</table>

### 2. Miscellaneous

#### A. Plan review or code research, change orders, alternate materials and methods requests, miscellaneous

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$130 per plan review discipline per hour with a quarter hour minimum per discipline</td>
<td></td>
</tr>
</tbody>
</table>

#### B. Product/fabricator approval review

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$130 per plan review discipline per hour with a quarter hour minimum per discipline</td>
<td></td>
</tr>
</tbody>
</table>

#### C. Residential Deck (addition or alteration)

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$130 per plan review discipline per hour with a quarter hour minimum</td>
<td></td>
</tr>
</tbody>
</table>

### 23.10. Table 3-C Inspection fees.

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inspection or re-inspection, per $\frac{1}{2}$ hour, minimum $\frac{1}{4}$[one] hour</td>
<td>$75$</td>
</tr>
<tr>
<td>2. Inspection or re-inspection, unscheduled, each, per $\frac{1}{2}$ hour, $\frac{1}{2}$[one]-hour minimum. Inspection shall not count against pre-purchased inspections or allotted residential inspections.</td>
<td>$115230</td>
</tr>
<tr>
<td>3. Inspection or re-inspection, outside normal business hours, per hour, per inspector; two-hour minimum. Inspection shall not count against pre-purchased inspections or allotted residential inspections.</td>
<td>$285</td>
</tr>
<tr>
<td>4. Inspection, Sundays and holidays, per hour, per inspector, two-hour minimum. Inspection shall not count against pre-purchased inspections or allotted residential inspections.</td>
<td>$375</td>
</tr>
<tr>
<td>5. Code compliance inspection, per hour, per inspector, one-hour minimum</td>
<td>$150</td>
</tr>
</tbody>
</table>
6. Secure Facilities Surcharge (in addition to the hourly rate for inspections at any facility where an inspector must wait for an escort) | 25% Surcharge
---|---
7. Fine for failure to perform special inspection, per incident | $300 At the discretion of the Building Official

### 23.10. Table 3-D Temporary electric and gas permit fees.

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Temporary Electric, without Building permit. No fee if tied to a building permit.</td>
<td>$150</td>
</tr>
<tr>
<td>B. Temporary gas, without Building permit. No fee if tied to a building permit</td>
<td>$150</td>
</tr>
</tbody>
</table>

### 23.10. Table 3-E Retrofit permit fees.

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Retrofit permits limited in scope as follows:</td>
<td>$75 per inspection per ½ hour, with a minimum charge of one half hour per inspection.</td>
</tr>
<tr>
<td>1. One new 20 amp circuit having no more than six general purpose receptacles or light fixtures.</td>
<td></td>
</tr>
<tr>
<td>2. No more than six general purpose receptacles or light fixtures added to one or more existing 20 ampere circuits.</td>
<td></td>
</tr>
<tr>
<td>3. One 20 amp circuit for a sign.</td>
<td></td>
</tr>
<tr>
<td>4. The like for like replacement of a water heater in a residential building containing 4 or fewer dwelling units.</td>
<td></td>
</tr>
<tr>
<td>B. Retrofit permits limited in scope as follows that do not qualify under item A. above:</td>
<td>$150 per inspection per hour, with a minimum charge of one hour per inspection.</td>
</tr>
<tr>
<td>1. The like for like replacement of plumbing, mechanical and electrical equipment, fixtures and appliances in commercial and residential buildings.</td>
<td></td>
</tr>
<tr>
<td>2. The like for like replacement of a water heater in a commercial building or a residential building containing more than 4 dwelling units.</td>
<td></td>
</tr>
<tr>
<td>3. Electrical, plumbing or mechanical alterations to a residential building containing 4 or fewer dwelling units.</td>
<td></td>
</tr>
<tr>
<td>4. Minor plumbing, mechanical and electrical alterations to commercial buildings where the requirement for engineering can be waived (requires pre-approval by plan review).</td>
<td></td>
</tr>
<tr>
<td>C. Test backflow preventer</td>
<td>$150.00 per inspection.</td>
</tr>
</tbody>
</table>
23.10. Table 3-F  Elevator, escalator, dumbwaiter, and other lift permit fees.

NOTES:
1. Each separately powered unit shall be considered a separate conveyance; applications and permits shall be issued accordingly.

2. Load side wiring associated with the conveyance and installed by the elevator contractor shall not require additional permits.

3. Fees include elevator inspection section plan review time, travel time, inspection time, report preparation time and administrative time.

4. Elevator inspector time is billed in half-hour increments.

<table>
<thead>
<tr>
<th>1. New Installations, Modernizations and Relocations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Hydraulic elevators</td>
<td>$2,100</td>
</tr>
<tr>
<td>B. Electric geared &amp; gearless elevators</td>
<td>$2,700</td>
</tr>
<tr>
<td>C. Residential elevators</td>
<td>$1,800</td>
</tr>
<tr>
<td>D. Dumbwaiters</td>
<td>$1,200</td>
</tr>
<tr>
<td>E. Escalators and moving walks</td>
<td>$2,700</td>
</tr>
<tr>
<td>F. Accessibility Equipment covered by A18.1:</td>
<td></td>
</tr>
<tr>
<td>1. Vertical Platform Lift</td>
<td>$1,200</td>
</tr>
<tr>
<td>2. Inclined Platform Lift</td>
<td>$900</td>
</tr>
<tr>
<td>3. Inclined Stairway Chairlifts</td>
<td>$300</td>
</tr>
<tr>
<td>G. Vertical Reciprocating Conveyor (VRC)</td>
<td>$1,200</td>
</tr>
<tr>
<td>H. Roped hydraulic elevators</td>
<td>$2,400</td>
</tr>
</tbody>
</table>

2. Minor Alterations
Building Safety will use 3 hours as the base amount to charge at the time of application. Additional time required to complete the project will be billed at the end of the project.

3. Biennial Certificate of Inspection
A. Electric geared & gearless elevators $900 plus $150 per hour for inspector time exceeding 8 hours.
B. Hydraulic elevators $600 plus $150 per hour for inspector time exceeding 5 hours.
C. Accessibility Equipment covered in the A18.1
1. Vertical platform lift $450 plus $150 per hour for inspector time exceeding 4 hours.
2. Inclined platform lift $450 plus $150 per hour for inspector time exceeding 4 hours.
3. Inclined stairway chair lift $450 plus $150 per hour for inspector time exceeding 4 hours.
D. Dumbwaiters  | $450.00 plus $150 per hour for inspector time exceeding 4 hours.
---|---
E. Vertical Reciprocating Conveyor (VRC)  | $450.00 plus $150 per hour for inspector time exceeding 4 hours.
---|---
4. Annual certificate of Inspection  Escalators and moving walks  | $1050 plus $150 per hour for inspector time exceeding 9 hours.

### 23.10. Table 3-G Grading, excavation and fill permit fees.

1. There is no additional permit fee when grading is done as part of a building permit.
2. Permit fees are required for stand-alone grading permits as follows:
   - A. Less than 10 cubic yards  | $0.00
   - B. 10 to 50 cubic yards  | $75
   - C. 51 to 500 cubic yards  | $225
   - D. 501 to 2,500 cubic yards  | $300
   - E. 2,501 to 5,000 cubic yards  | $450
   - F. 5,001 to 10,000 cubic yards  | $750
   - G. 10,001 to 25,000 cubic yards  | $1,000
   - H. 25,001 to 50,000 cubic yards  | $1,500
   - I. 50,001 to 100,000 cubic yards  | $2,000
   - J. Greater than 100,000 cubic yards  | $2,500
3. Plan review fees are required for grading work as follows:
   - A. Less than 10 cubic yards  | $0.00
   - B. 10 to 50 cubic yards  | $0
   - B. 51 to 500 cubic yards  | $75
   - C. 501 to 2,500 cubic yards  | $225
   - D. 2,501 to 5,000 cubic yards  | $300
   - E. 5,001 to 10,000 cubic yards  | $450
   - F. 10,001 to 25,000 cubic yards  | $600
   - G. 25,001 to 50,000 cubic yards  | $900
   - H. 50,001 to 100,000 cubic yards  | $1200
   - I. Greater than 100,000 cubic yards  | $1500
4. The fee for inspections beyond those required by Chapter 23.105 Grading, Excavation, Fill and Landscaping Code shall be $150 per hour with a one-hour minimum for each inspection.

### 23.10. Table 3-H Re-roof permit fees.

1. Up to 1,500 sq. ft.  | $175 includes plan review.
2. 1,501 to 3,000 sq. ft.  | $300 includes plan review
3. Greater than 3,000 sq. ft.  | $500 includes plan review

### 23.10. Table 3-I Mobile home permit fees.

1. Set-up fee  | $225
2. Land use plan review fee  | $25
### 23.10. Table 3-J Sign permit fees.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sign, other than electrical</td>
<td>$150 per inspection</td>
</tr>
<tr>
<td></td>
<td>Owner/Contractor/permittee shall provide Building Safety with estimated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>number of inspections required to complete project.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Electrical Sign.</td>
<td>$150 per inspection</td>
</tr>
<tr>
<td></td>
<td>Owner/Contractor/permittee shall provide Building Safety with estimated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>number of inspections required to complete project.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Sign Building Plan Review Structural Review, with half-hour increments, one-</td>
<td>$130 per Hour</td>
</tr>
<tr>
<td></td>
<td>half hour minimum</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sign Land Use Plan Review with half-hour increments, one-half hour minimum</td>
<td>$130 per hour</td>
</tr>
</tbody>
</table>

### 23.10. Table 3-K Licenses and testing fees.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Test Fees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Contractor testing fee</td>
<td>$75</td>
</tr>
<tr>
<td></td>
<td>B. Journeyman testing fee</td>
<td>$50</td>
</tr>
<tr>
<td>2.</td>
<td>Issuance or Renewal Fees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Contractor license, 2 years</td>
<td>$360</td>
</tr>
<tr>
<td></td>
<td>B. Journeyman license, 2 years</td>
<td>$125</td>
</tr>
<tr>
<td></td>
<td>C. Trainee license, 2 years</td>
<td>$75</td>
</tr>
<tr>
<td></td>
<td>D. Special Inspector License, 2 years</td>
<td>$125</td>
</tr>
<tr>
<td></td>
<td>E. Administrative late fee</td>
<td>$60</td>
</tr>
<tr>
<td>3.</td>
<td>License Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Backflow Assembly Tester, renewal fee (one-day recertification training</td>
<td>$100</td>
</tr>
<tr>
<td></td>
<td>required)</td>
<td></td>
</tr>
</tbody>
</table>
## 23.10. Table 3-L On-site services fees.

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Certificate of on-site systems approval, (COSA) single family</td>
<td></td>
</tr>
<tr>
<td>A. Existing System</td>
<td>$526</td>
</tr>
<tr>
<td>B. Existing System with active upgrade permit</td>
<td>$268.50</td>
</tr>
<tr>
<td>C. New Installation</td>
<td>$69.80</td>
</tr>
<tr>
<td>2. On-site conditional COSA approval</td>
<td>$279</td>
</tr>
<tr>
<td>3. On-site wastewater disposal system construction permit, includes drain field replacement</td>
<td>$569</td>
</tr>
<tr>
<td>4. Water well construction permit</td>
<td>$215</td>
</tr>
<tr>
<td>5. Septic tank/Holding tank replacement</td>
<td>$215</td>
</tr>
<tr>
<td>6. Water storage tank permit</td>
<td>$150</td>
</tr>
<tr>
<td>7. Renewal for on-site permit or COSA</td>
<td>$140</td>
</tr>
<tr>
<td>8. On-site water/wastewater expedited review</td>
<td></td>
</tr>
<tr>
<td>Additional 60% of the applicable fees</td>
<td></td>
</tr>
<tr>
<td>9. On-site wastewater permit change order review, per hour, half-hour minimum</td>
<td>$140</td>
</tr>
<tr>
<td>10. On-site code compliance re-inspection, per inspection, per hour, one hour minimum</td>
<td>$140</td>
</tr>
<tr>
<td>11. Separation distance variance/waivers:</td>
<td></td>
</tr>
<tr>
<td>A. Variance/Waiver, lot line</td>
<td>$215</td>
</tr>
<tr>
<td>B. Variance/Waiver, well to tank</td>
<td>$1128</td>
</tr>
<tr>
<td>C. Variance/Waiver, well to field</td>
<td>$1128</td>
</tr>
<tr>
<td>D. Variance/Waiver, field to surface water</td>
<td>$859</td>
</tr>
<tr>
<td>E. Variance/Waiver, tank to surface water</td>
<td>$859</td>
</tr>
<tr>
<td>F. Variance/Waiver, well to public sewer</td>
<td>$1128</td>
</tr>
<tr>
<td>G. Variance/Waivers of setback requirements in chapters 15.55 and 15.65 not listed in current fees</td>
<td>$215</td>
</tr>
<tr>
<td>12. Excavator Certification</td>
<td>$456</td>
</tr>
<tr>
<td>13. Well Driller/Pump Installer Certification</td>
<td>$285</td>
</tr>
<tr>
<td>14. Waste treatment equipment manufacturer (plan review &amp; facility inspection)</td>
<td></td>
</tr>
<tr>
<td>A. Initial review and approval – one time fee</td>
<td>$859</td>
</tr>
<tr>
<td>B. Review of changes or modifications, per hour, ½ hour minimum</td>
<td>$150</td>
</tr>
<tr>
<td>15. Sanitary pumper, per truck</td>
<td>$295</td>
</tr>
</tbody>
</table>
### 23.10. Table 3-M Miscellaneous fees and fines.

| 1. Code books and publications | Cost |
| 2. Research, building permit, per hour | $50 |
| 3. Fine, building code violations, civil penalty, fine per day per violation | $100 to $500 |
| 4. Copies, standard 8 1/2"x11" page, each | $0.35 per page |
| 5. Investigation fee for work begun without proper permit(s), in addition to all permit fees required by this Code, | Permit fee required by this Code, or $1,000, whichever is greater |
| a. First Offense: Investigative fee may be waived by the building official if required permit is obtained within reasonable amount of time agreed to by building official. | |
| b. Subsequent Offenses: Investigative fee plus an additional $1,000 fine applied incrementally for each additional offense. As example, the third offense would be investigative fee plus $2,000 if the first one was waived. | |
| 6. Training, per person, per class, when applicable | $50 |
| 7. Code abatement fee, per hour, one hour minimum | $150 |
| 8. Fine (Contractor), work without a required contractor's license, civil penalty |
| a. First Offense: Issuance fee plus test fee (if applicable) and a $1,000 fine which may be waived by the building official if required license is obtained within 30 days. | |
| b. Subsequent Offense: $1,000 plus issuance fee plus test fee (if applicable) and an additional $1,000 applied incrementally for each additional offense. As example, the third offense would be $2,000. | |
| 9. Fine (Journeyman), work without a required Certificate of Qualification |
| a. First Offense: Issuance fee plus test fee and a $250 fine which may be waived by the building official if the individual registers for the journeyman test within 72 hours. | |
| b. Subsequent Offense: $250 plus issuance fee plus test fee and an additional $250 applied incrementally for each additional offense. For example, a third offense is $500. | |
| c. The contractor for whom the violator is working for shall be subject to the same fines as the violator. | |
| 10. Fine (Trainee), work without a required trainee card |
| a. First Offense: $60 (waived if obtained within 72 hours). | |
| b. Subsequent Offense: $100 for each offense and an additional $100 applied incrementally for each additional offense. For example, a third offense is $200. | |
| c. The contractor for whom the violator is working for shall be subject to the same fines as the violator. | |

### 23.10. Table 3-N Fire systems fees.
### Chapter 23.15 Local Amendments to the International Building Code 2012 Edition

#### Sections

- **23.15.100** Local amendments to the International Building Code, 2012 Edition.
- **23.15.103-116** Delete.
- **23.15.202** Definitions.
- **23.15.310.5.2** Bed and breakfast establishments.
- **23.15.406.3.4** Separation.
- **23.15.412.4.1** Exterior walls.
- **23.15.425** Special security requirements for group E buildings.
- **23.15.426** Licensed residential care/assisted living facilities.
- **23.15.427** Child care facilities.
- **23.15.718.4.2** Groups R-1 and R-2.
- **23.15.903.2.3** Group E.
- **23.15.903.2.11** Specific building areas and hazards.
- **23.15.903.3.1.3** NFPA 13D sprinkler systems.
- **23.15.903.3.5** Water supplies.
- **23.15.907.1.2** Fire alarm shop drawings.
- **23.15.907.2.1** Group A.
- **23.15.907.2.2** Group B.
- **23.15.907.2.3** Group E.
- **23.15.907.2.4** Group F.
- **23.15.907.2.6.1** Group I-1
- **23.15.907.2.7** Group M.
- **23.15.907.2.8.1** Group R-1: Manual fire alarm system.
- **23.15.907.2.9.1** Group R-2: Manual fire alarm system.
- **23.15.907.2.10.1** Manual fire alarm system
- **23.15.907.5.2.1.1** Average Sound Pressure
- **23.15.907.5.2.3** Visible alarms
23.15.908.7 Carbon monoxide alarms.
23.15.1008.1.9.7 Delayed egress locks.
23.15.1015.2.2 Three or more exits or exit access doorways.
23.15.1102 Definitions.
23.15.1106 Parking and passenger loading facilities.
23.15.1110.1 Signs.
23.15.1203.2 Attic spaces.
23.15.1209.2 Attic spaces.
23.15.1211 Moisture control in insulated assemblies.
23.15.1403.2 Weather protection.
23.15.1405.3 Vapor retarders.
23.15.1503 Weather protection.
23.15.1507.2 Asphalt shingles.
23.15.1507.3 Clay and concrete tile.
23.15.1507.4 Metal panel roofs.
23.15.1507.5 Metal roof shingles:
23.15.1507.6 Mineral-surfaced roll roofing:
23.15.1507.7 Slate shingles.
23.15.1507.8 Wood shingles:
23.15.1507.9 Wood Shakes
23.15.1508.3 Vapor retarders.
23.15.1603.1.10 Live loads posted
23.15.1604.4 Analysis.
23.15.1608.1 General.
23.15.1608.4 Flat roof snow loads.
23.15.1609.3 Basic wind speed.
23.15.1609.4 Anchorage “Three Second Gust” Wind Zone Map
23.15.1610.1 Soil lateral loads.
23.15.1613.1 Scope.
23.15.1613.2 Definitions.
23.15.1703.7 Special inspector pre-approval program
23.15.1703.7.1 Special inspector intern program
23.15.1703.7.2 Application
23.15.1703.7.3 Special inspector approval
23.15.1703.7.3.1 Approval suspension
23.15.1703.7.3.2 Removal of pre-approval status
23.15.1704.2.4 Report requirement
23.15.1705.2.2.1 Welding.
23.15.1705.3 Concrete construction.
23.15.1705.18 Post-installed concrete and masonry anchors
23.15.1802.1 Definitions
23.15.1803.5.4 Groundwater table
23.15.1803.5.10 Alternate setback and clearance
23.15.1803.5.12 Seismic Design Categories D through F
23.15.1803.5.13 Permafrost
23.15.1803.6 Reporting
23.15.1804.3 Site grading
23.15.1804.5 Compacted fill material
AO repealing and reenacting Title 23 to adopt
Building Codes and local amendments


The amendments to the 2012 Edition of the International Building Code (IBC) are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the International Building Code to which the amendments refer.

23.15.103-116 Delete.
Delete IBC sections 103 through 116; refer to the Anchorage Administrative Code.

23.15.202 Definitions.
Add the following definition:

**USABLE SPACE** is space in a structure used for utility or equipment placement, storage, or building service, such as laundry and maintenance areas, and not defined as habitable space. Space used
for ducts, water and sewer lines, and electrical wiring is not considered usable space.

23.15.310.5.2 Bed and breakfast establishments.
Revise section 310.5 Residential group R-3 by adding the following section:

310.5.2 Bed and breakfast establishments. A single family dwelling containing not more than five sleeping rooms, where guests pay rent in money, goods, labor, or otherwise shall be classified as a Group R-3 occupancy, or shall comply with the International Residential Code.

23.15.406.3.4 Separation.
Amend by changing all references to “1/2-inch (12.7mm)” in item #1 to “5/8-inch Type X”.

23.15.412.4.1 Exterior walls.
Revise section 412.4.1 by adding the following exception:

Exception: Group III hangars.

23.15.425 Special security requirements for group E buildings.
Amend Chapter 4 by adding the following section:

SECTION 425
SPECIAL SECURITY REQUIREMENTS FOR GROUP E BUILDINGS

425.1 General. All Group E buildings with the lower floor level above grade and open on the sides shall be fenced around the building exterior or have skirting below the exterior walls to prevent unauthorized access.

23.15.426 Licensed residential care/assisted living facilities.
Amend Chapter 4 by adding the following section:

SECTION 426
LICENSED RESIDENTIAL CARE/ASSISTED LIVING FACILITIES

426.1 Scope. The provisions of this section apply to licensed residential care/assisted living facilities providing accommodations for 3 to 16 residents.

426.1.1 Multiple facilities within a single structure. Where more than one licensed residential care/assisted living facility is located within a single structure, the combined occupant load of all facilities shall be used to determine the occupancy classification.

Exceptions:
1. Facilities separated by fire barriers constructed in accordance with section 707 and horizontal assemblies constructed in accordance with section 711, or both, having a minimum two hour fire resistance rating so as to completely separate the facility from adjacent occupancies and facilities.

2. Townhouses where each townhouse is separated from adjacent dwelling units with either (two) one hour fire resistance rated walls or (one) two hour fire resistance rated wall, constructed in accordance with the IRC.

426.2 Facilities in new buildings and additions. Facilities located in new buildings and additions shall comply with this code.

426.2.1 Mixed use and occupancy. Residential care/assisted living facilities shall be separated from other occupancies and uses by fire barriers constructed in accordance with section 707 or horizontal assemblies constructed in accordance with section 711, or both, having a minimum 2 hour fire resistive rating, so as to completely separate adjacent occupancies. Egress from residential care/assisted living facilities shall not pass through other occupancies.

426.3 Existing facilities. Existing facilities shall comply with the International Fire Code as amended under AMC 23.45.

426.3.1 Expiration or lapse of Licensure. A facility whose license lapses by more than 180 days is no longer considered an existing facility. Establishment of a new facility in the existing structure requires a change of use permit in accordance with this section.

426.3.2 Increase in the number of residents. An increase in the number of residents that results in a change of occupancy classification requires a change of use permit in accordance with this code.

426.3.3 Modification of license. For facilities housing more than 5 residents, a license modification from individuals capable of self-preservation to individuals who may be incapable of self-preservation requires a change of use permit in accordance with this code.

426.4 Change of use. Conversion of an existing building or portion thereof to a residential care/assisted living facility shall comply with sections 426.4.1 through 426.4.10.

426.4.1 Permit required. Conversion of an existing building or portion thereof to a residential care/assisted living facility shall
require a change of use permit in accordance with the Anchorage Administrative Code, AMC 23.10.

426.4.2 Residents incapable of self-preservation. Facilities housing 6 or more residents, any number of which may be incapable of self-preservation, are classified as Group I-2 and shall comply with the applicable provisions of this code.

426.4.3 Automatic sprinkler system. An automatic sprinkler system shall be provided in accordance with section 903. NFPA 13D systems require a minimum 30 minute water supply, or minimum 20 minute supply with a fire department connection.

426.4.4 Fire and smoke alarms. Fire and smoke alarms shall be installed in accordance with section 907 based on the occupancy classification.

426.4.5 Fire resistive construction. All walls and partitions shall qualify as ½ hour fire resistive construction. Floor assemblies, excluding floors over unusable crawl spaces, shall be protected on the underside with ½ inch thick gypsum wall board, or equivalent. All structural elements shall be separated from the interior of the building by ½ inch thick gypsum wall board, or equivalent, or shall qualify as ½ hour fire resistive structural elements in accordance with chapter 7.

426.4.6 Sleeping rooms. Sleeping rooms shall be separated from adjacent spaces by construction capable of resisting the passage of smoke. Air transfer openings and louvers between sleeping rooms and adjacent spaces are prohibited. Sleeping rooms may be served by HVAC metallic duct systems constructed in accordance with the International Mechanical Code. Sleeping room doors shall be 1-3/4 solid wood core or 20 minute fire rated, and shall be provided with latches suitable for keeping the doors closed.

426.4.7 Interior egress stairs. Interior egress stairs serving sleeping rooms and living areas located above or below the level of exit discharge shall comply with sections 426.4.7.1 through 426.4.7.3.

426.4.7.1 Stairs serving a maximum of two stories shall be permitted to be unenclosed.

426.4.7.2 Stairs serving a maximum of three stories shall be enclosed with ½ hour rated fire barriers and/or horizontal assemblies. Doors shall be self or automatic closing and shall be 20 minute rated.
426.4.7.3 Stairs serving more than three stories shall be enclosed in accordance with this code.

426.4.8 Protection of vertical openings. A maximum of 2 stories may communicate through unprotected openings. Additional stories shall be separated from communicating stories by ½ hour fire resistive assemblies constructed to resist the passage of smoke. Openings, other than metallic HVAC ducts and vents, shall be protected with 20 minute fire rated self or automatic closing doors.

426.4.9 Accessibility. Accessibility shall be provided in accordance with Chapter 11.

426.4.10 Mixed use and occupancy. Residential care/assisted living facilities shall be separated from other occupancies and uses by fire barriers constructed in accordance with section 707 or horizontal assemblies constructed in accordance with section 711, or both, having a minimum 2 hour fire resistive rating, so as to completely separate adjacent occupancies. Egress from residential care/assisted living facilities shall not pass through other occupancies.

23.15.427 Child care facilities.
Amend Chapter 4 by adding the following section:

SECTION 427
CHILD CARE FACILITIES

427.1 Scope. Child care facilities shall comply with this code.

Exception: Child care facilities are permitted to comply with the International Residential Code provided all of the following requirements are met:

1. The facility is located in a detached one or two family dwelling or townhouse (as defined in the International Residential Code).

2. Day care: The facility is limited to a maximum of eight (8) children of any age, including children related to staff, between the hours of 6:00 a.m. and 10:00 p.m.

3. Night care: The facility is limited to a maximum of five (5) children of any age, including children related to staff, between the hours of 10:00 p.m. and 6:00 a.m.

4. The facility shall comply with AMC Chapter 16.55 Child Care and Education Facilities – Centers and Homes.
5. Smoke alarms and carbon monoxide detectors are provided in accordance with the International Residential code.

6. Means of egress and emergency escape and rescue openings comply with the International Residential code.

7. Fire extinguishers are provided in accordance with the International Fire Code as required for a group E occupancy.

8. Child care is limited to the basement, first and second stories.

9. Child care facilities located in a basement or second story shall have access to not less than two means of egress separated by a minimum of ½ the maximum overall diagonal of the area served. One of the required means of egress may consist of a code compliant emergency escape and rescue opening. When child care facilities are located in a basement, at least one exit or emergency escape and rescue opening shall discharge directly to the exterior of the building at or near grade.

23.15.718.4.2 Groups R-1 and R-2.
Amend Exception 3 to read as follows:

Exception 3: The attic space may be subdivided by draftstops into areas not exceeding 3000 square feet, or above every two dwelling units, whichever is smaller. When draftstopping is installed to separate every two dwelling units and each of these units is separated by a corridor, draftstopping is not required at the corridor wall. Where required, all subdivided areas shall be ventilated in accordance with Section 1203.2.

23.15.903.2.3 Group E.
Delete 903.2.3 and replace with the following:

An automatic sprinkler system shall be provided throughout all buildings that contain a Group E occupancy and for every portion of educational buildings below the level of exit discharge. The use of a fire wall does not establish a separate building for purposes of this section.

Exception: Buildings with Group E occupancies having an occupant load of 49 or less.

Daycare uses licensed to care for more than five (5) persons between the hours of 10 p.m. and 6 a.m. shall be equipped with an automatic sprinkler system designed and installed in accordance with subsection 903.3.1 or an approved equivalent system.
23.15.903.2.11 Specific building areas and hazards.
Amend by adding the following sections:

903.2.11.7 Pit sprinklers. Sprinklers shall be installed in the bottom of all new elevator pits below the lowest projection of the elevator car but no higher than 24" (609.6 mm) from the bottom of the pit when the building has a sprinkler system.

903.2.11.8 Sprinkler systems shall not be allowed in elevator machine rooms/ spaces or control room/ spaces and at the tops of hoist ways, except as required by NFPA13 8.15.5.6

903.2.11.8.1 Sprinklers shall be required in all spaces where combustible elevator belts are present.

23.15.903.3.1.3 NFPA 13D sprinkler systems.
Amend section by adding the following sentence:

All required automatic sprinklers systems installed in accordance with NFPA 13D shall have a minimum 30 minute water supply or a minimum 20 minute water supply with a FDC for Group R-3 and R-4 occupancies.

23.15.903.3.5 Water supplies.
Amend by adding new Section 903.3.5.3 as follows:

903.3.5.3 Fire sprinkler hydraulic water flow design.

Fire sprinkler hydraulic water flow design shall be by one of the following methods.

1. Preferred method. Fire sprinkler hydraulic design water supply shall be from AWWU computer model Max Day demand.

2. Alternate method. Can only be used if AWWU computer model cannot be obtained. Fire sprinkler system being designed with water supply data from a hydrant flow test shall have a 10 percent minimum flow rate safety factor at the water source. Hydrant flow test shall be witnessed by the fire code official or their designee.

23.15.907.1.2 Fire alarm shop drawings.
Amend section by adding the following construction drawing to the list of those required to be submitted:


23.15.907.2.1 Group A.
Delete Exception.
23.15.907.2.2  Group B.
Delete Exception.

23.15.907.2.3  Group E.
Amend 907.2.3 (Group E) by adding a second paragraph to read:

Rooms used for sleeping or napping purposes within a day care use of a Group E occupancy must be provided with smoke alarms that comply with Section 907.2.11.2.

Delete Exceptions 2 and 3.

23.15.907.2.4  Group F.
Delete Exception.

23.15.907.2.6.1  Group I-1.
Delete Exception 1.

23.15.907.2.7  Group M.
Delete Exception 2.

23.15.907.2.8.1  Group R-1: Manual fire alarm system.
Delete Exception 2.

23.15.907.2.9.1  Group R-2: Manual fire alarm system.
Amend section 907.2.9.1 by deleting first sentence and replacing it with:

A manual fire alarm system and an automatic fire detection system with smoke detection in the public and common use areas shall be installed in Group R-2 occupancies where:

Delete Exception 2.

23.15.907.2.10.1  Manual fire alarm system.
Delete Exception 2.

23.15.907.5.2.1.1  Average Sound Pressure.
Add the following sentence:

The minimum sound pressure level in every occupiable space shall be 75 dBA in Group R occupancies and 60 dBA in all other occupancies.

23.15.907.5.2.3  Visible alarms.
Amend 907.5.2.3 by adding the following to exception 1:

An upgrade shall be the replacement of a fire alarm panel, or fire system components providing improved functional performance or capabilities. (A software upgrade is exempt from this requirement.)
23.15.908.7 Carbon monoxide alarms.
Replace section 908.7 with the following:

908.7 Carbon monoxide alarms. The provisions of this section apply to Group I-1, R-2, R-3 and R-4 occupancies, and Group A and E occupancies where individuals sleep on a periodic basis. At least one (1) carbon monoxide alarm shall be installed on each floor level. If a floor level contains bedrooms or sleeping rooms, at least one (1) alarm shall be located in the immediate vicinity of the sleeping area, outside of the bedrooms/sleeping rooms. Carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer’s instructions. The alarm shall be clearly audible in all sleeping rooms with intervening doors closed as required by NFPA 720.

Exceptions:
1. Carbon monoxide alarms are not required in dwelling units and structures with no combustion appliances and that do not have an attached enclosed garage.
2. Carbon monoxide alarms are not required in dwelling units and structures with only direct vent combustion appliances and that do not have an attached enclosed garage.
3. Carbon monoxide alarms are not required in Group A, E, I-1, and R-2 occupancies where all combustion equipment is located within a mechanical room separated from the rest of the building by construction capable of resisting the passage of smoke. If the structure has an attached enclosed parking garage, the garage shall be ventilated by an approved automatic carbon monoxide exhaust system designed in accordance with the mechanical code.

908.7.1 Interconnection. In new construction, all carbon monoxide alarms located within a single dwelling unit shall be interconnected in such a manner that actuation of one alarm shall activate all of the alarms within the individual dwelling unit.

908.7.2 Power source. In new construction, carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Wiring shall be permanent and without disconnecting switch other than those required for overcurrent protection. In existing construction, carbon monoxide detectors shall be permitted to be battery powered or cord-and-plug type with battery backup.

908.7.3 Carbon monoxide detection systems. Carbon monoxide detection systems, which include carbon monoxide detectors and audible notification appliances, installed and
maintained in accordance with this section for carbon monoxide alarms and NFPA 720 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

**23.15.1008.1.9.7 Delayed egress locks.**
Revise item number 3 to read as follows:

3. The door locks shall have the capability of being unlocked by a signal from an approved location.

**23.15.1015.2.2 Three or more exits or exit access doorways.**
Amend section 1015.2.2 to read as follows:

Where access to three or more exits is required, three exits shall be separated from each other by a minimum distance of one-third the maximum overall diagonal dimension of the area served.

**23.15.1102 Definitions.**
Revise section 1102.1 by adding the following definition:

CONVENTIONAL INDUSTRY TOLERANCES. In reference to ICC A117.1-2009, section 104.2 Dimensions, convention industry tolerances shall be one percent or one-half inch, which ever results in the lesser tolerance.

**23.15.1106 Parking and passenger loading facilities.**
Revise section 1106.1 Required, by adding the following:

In the event of a conflict between this section and AMC Title 21, the more restrictive requirement shall apply.

**23.15.1110.1 Signs.**
Delete Items 1 and 2 and replace with the following:

1. Accessible parking spaces required by Title 21.
2. Accessible passenger loading zones required by Title 21.

**23.15.1203.2 Attic spaces.**
Amend section 1203.2 as follows:

In the first sentence, add the words “insulation and” before the word “ceilings”.

Amend the third sentence by changing “1 inch” to “1 ½ inch”.

Delete all 3 exceptions.

**23.15.1209.2 Attic spaces.**
Add a sentence at the end of the paragraph to read as follows:

Attic access shall not be located in a room containing bathing facilities.
23.15.1211 Moisture control in insulated assemblies.
Amend Chapter 12 by adding the following section:

SECTION 1211
MOISTURE CONTROL IN INSULATED ASSEMBLIES

1211.1 Moisture control strategies. The building design shall incorporate both interior and exterior moisture control strategies to prevent the accumulation of moisture within insulated assemblies. Exterior moisture control shall comply with Chapters 14 and 15. Interior moisture control shall comply with section 1211.1.1. Should insulated assemblies become wet or start out wet, the design strategy shall allow the assembly to dry to either the exterior or interior. Materials shall be allowed to dry prior to enclosure.

1211.1.1 Interior moisture control in insulated assemblies.
Methods to control moisture accumulation within insulated assemblies from the building interior shall address both vapor diffusion and air leakage. Vapor diffusion shall be controlled by the installation of a class I vapor retarder on the warm-in-winter side of the insulation. The vapor retarder shall be continuous and seams shall be lapped 6 inches minimum. Penetrations and seams shall be sealed with approved tape or sealant to control air leakage.

Exceptions:
1. A vapor retarder is not required in construction where moisture or its freezing will not damage materials.
2. A vapor retarder is not required on crawlspace walls designed to dry to the interior.
3. A vapor retarder is not required on basement walls designed to dry to the interior. Such walls shall be insulated as follows:
   a. Two inches minimum of EPS or XPS foam plastic insulation applied directly against the exterior of the foundation wall, and one inch of EPS, XPS or polyisocyanurate (PIR) applied between the interior surface of the foundation wall and framing. The framing cavity may be insulated with any type of approved insulation.
   b. Three inches minimum of two pound density closed cell foam plastic insulation applied to the interior side of the foundation wall with one inch minimum of insulation between any wall framing and the foundation wall.
   c. Equivalent moisture resistant system approved by the building official.
4. A vapor retarder is not required at cantilevered floor assemblies where the floor decking consists of nominal ¾ inch OSB or other approved material having a perm
rating of less than one. Joints shall be sealed in an approved manner. Joint sealing is not required where the deck is covered with concrete or a gypsum based floor topping.

5. The rim joist does not require a vapor retarder when insulated to a minimum value of R-21 with spray foam having a minimum density of 2 pounds per cubic foot.

6. A class III vapor retarder may be used on walls and roof insulated to a minimum value of R-21 with spray foam having a minimum density of 2 pounds per cubic foot.

7. Up to one-third of the total installed insulation R-value may be installed on the warm side of the vapor retarder. This exception applies only when the daily average indoor relative humidity is maintained below 35 percent during the heating months of November through March.

8. Factory manufactured insulated panels consisting of a metal skin encapsulating and bonded to a foam plastic core do not require a vapor retarder.

23.15.1403.2 Weather protection.
Amend third sentence by adding the words “vapor permeable” after “water-resistant.”

23.15.1405.3 Vapor retarders.
Amend section 1405.3 by deleting subsection 1405.3.1 Class III vapor retarders. Refer to section 23.15.1211.

23.15.1503 Weather protection.
Add the following section:

1503.7 Protection from falling ice and snow. Buildings and structures shall be designed and constructed to minimize a hazardous accumulation of snow and ice on downward sloped eaves, roof surfaces and architectural projections. Where the accumulation of snow and/or ice creates a hazardous condition, the areas below the accumulation shall be protected from falling snow and/or ice. These areas include (but are not limited to) building entrances and exits, pedestrian areas, parking lots, driveways, public right-of-way, children’s play areas and utility locations for fire department connections, gas meters, and electrical meters, services and disconnects.

23.15.1507.2 Asphalt shingles.
Amend the first sentence in subsection 1507.2.8 Underlayment application, to read as follows:

For roof slopes from 2 units vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall consist of self-adhering polymer-modified bitumen sheet complying with ASTM D 1970.
23.15.1507.3  Clay and concrete tile.
Revise subsection 1507.3.3 Underlayment, to read as follows:

Underlayment shall be self-adhering polymer modified bitumen sheet complying with ASTM D 1970. The underlayment shall cover the entire roof surface.

Delete subsection 1507.3.3.1 Low slope roofs.

Delete subsection 1507.3.3.2 High slope roofs.

Delete subsection 1507.3.3.3 High wind attachment.

Delete the column titled "Roof slope up to < 3:12" in Table 1507.3.7 Clay and concrete tile attachment.

23.15.1507.4  Metal panel roofs.
Delete subsection 1507.4.5 Underlayment and high wind.

23.15.1507.5  Metal roof shingles.
Add the following sentence to section 1507.5.3 Underlayment:

For roof slopes from 3 units vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall consist of self-adhering polymer-modified bitumen sheet complying with ASTM D 1970.

Delete subsection 1507.5.3.1 Underlayment and high wind.

23.15.1507.6  Mineral-surfaced roll roofing.
Add the following sentence to subsection 1507.6.3 Underlayment:

For roof slopes from 1 unit vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall consist of self-adhering polymer-modified bitumen sheet complying with ASTM D 1970.

Delete subsection 1507.6.3.1 Underlayment and high wind.

23.15.1507.7  Slate shingles.
Delete subsection 1507.7.3.1 Underlayment and high wind.

23.15.1507.8  Wood shingles.
Add the following sentence to subsection 1507.8.3 Underlayment:

For roof slopes from 3 units vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall

Delete subsection 1507.8.3.1 Underlayment and high wind.

23.15.1507.9 Wood Shakes.
Delete subsection 1507.9.3.1 Underlayment and high wind.

23.15.1508.3 Vapor retarders.
Amend section 1508 by adding the following subsection:

1508.3 Vapor retarders. Refer to section 23.15.1211.

23.15.1603.1.10 Live loads posted.
Add a new subsection to read as follows:

Where the design live load is unusual, and is located on a floor not directly supported by ground, the design live load shall be posted in a conspicuous location.

23.15.1604.4 Analysis.
Add the following paragraph at the end of the section:

Exterior walls and cladding of building and interior partitions shall accommodate gravity system deflections or be capable of resisting loads imposed by vertical movement of the gravity system.

23.15.1608.1 General.
Add the following sentence at the end of the paragraph:

Greenhouses heated year round may be designed for 10 psf (0.48 kN/m²) roof live load without considering roof snow loads.

23.15.1608.4 Flat roof snow loads.
Add the following subsection 1608.4:

1608.4 Flat roof snow loads. The minimum flat roof snow load, P_f, shall be 40 psf (1.92 kN/m²).

23.15.1609.3 Basic wind speed.
Delete this section and replace with the following:

The basic wind speed, in miles per hour (mph), for the determination of the wind loads shall be determined in accordance with the Anchorage “Three Second Gust” Wind Zone Map.

23.15. Figure 1609 Anchorage “Three Second Gust” Wind Zone Map.
Delete the first paragraph and replace with the following:
The ultimate design wind speed, $V_{ult}$, in mph, for the determination of the wind loads shall be determined in accordance with the 2013 Anchorage “Three Second Gust” Wind Zone Map and associated tables.

Delete Figures 1609A, 1609B, and 1609C and replace with the following:

(Remainder of page intentionally left blank, see figure on following page)
23.15.1609.4 Exposure categories.

Add the following definitions to Exposure D:

**SHORELINE.** The high tide line, as indicated by the edge of vegetation on the most recent Municipality base aerial photograph set.

**UNOBSTRUCTED.** Any site not sheltered from the shoreline by vegetation or other impediments at least 4 feet high and covering a minimum of 60 percent of an area extending a minimum of 30 feet perpendicular to a line connecting the building to any point of the shoreline.

23.15.1610.1 Soil lateral loads.

Add the following sentence at the end of the paragraph:

Design lateral pressure shall consider the effects of seasonal frost penetration.

23.15.1613.1 Scope.

Revise the first sentence to read as follows:

Every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7, excluding Chapter 14, Appendices 11A and 11B.

23.15.1613.2 Definitions.

Add the following definition:

**SEISMICALLY-INDUCED GROUND FAILURE ZONES.** For the various mapped ground failure zones, see the Anchorage Coastal Resource Atlas, Vol. 1: The Anchorage Bowl. For the purposes of these amendments the following numbers are assigned to the various mapped areas:

- Zone 1 – “Lowest ground failure susceptibility.”
- Zone 2 – “Moderately low ground failure susceptibility.”
- Zone 3 – “Moderate ground failure susceptibility.”
- Zone 4 – “High ground failure susceptibility.”
- Zone 5 – “Very high ground failure susceptibility.”

23.15.1703.7 Special inspector pre-approval program.

Add the following subsection to read as follows:

Unless otherwise approved by the building official, special inspectors shall be pre-qualified and approved by the building official before performing special inspection activities on any project within the Municipality. Special inspectors shall obtain pre-approval for each category of inspection they wish to perform.
23.15.1703.7.1 Special inspector intern program.
Add the following subsection to read as follows:

The Special Inspection firm proposing to use an intern for part of a Special Inspection shall submit to the building official a written Special Inspector Intern Program for approval. The program shall define:

1. Minimum pre-qualifying experience required for the proposed intern to participate as a Special Inspector Intern. Minimum qualifications to begin the Special Inspector Program shall be defined by the building official.
2. The Special Inspection Intern shall be supervised as described by the written Special Inspector Intern Program. Individuals designated as supervisors shall be preapproved Special Inspectors in the discipline the Intern is training for. Special Inspection reports and documents shall be signed by the intern and countersigned by the supervisor prior to being submitted to the Contractor, the Engineer of Record, and the building official.
3. Completion of Special Inspector Intern training in a particular category of Inspection shall be demonstrated by application for pre-approval as a Special Inspector and acceptance by the building official.
4. Should an Intern fail to perform, the building official may require additional training, additional supervision, or removal from the project.

23.15.1703.7.2 Application.
Add the following subsection to read as follows:

Applicants for pre-approval as special inspectors shall submit an application describing documentable qualifications for each category of inspection(s) to be performed, with years of experience, project references, certifications where appropriate, and references with contact information. Once qualifications are accepted by the building official, an applicant special inspector shall be issued a unique special inspector number. Provisions may be made for pre-qualification of special inspector interns not meeting the basic requirements of a special inspector in a certain category, but who are supervised by a pre-qualified special inspector or design professional.

23.15.1703.7.3 Special inspector approval.
Add the following subsection to read as follows:

Approval shall be by letter from the Municipality and shall include a pocket or wallet card defining special inspector’s information and the categories the special inspector has been pre-approved. Special inspectors shall carry the wallet card on their person when performing inspections and show the card upon request of building official’s representative or designated design professional.
approvals shall be renewed every two (2) years by reapplication of the special inspector.

23.15.1703.7.3.1 Approval suspension.
Add the following subsection to read as follows:

The building official may suspend an individual’s approval as a special inspector for a project where the special inspector demonstrates a lack of knowledge, neglects duties due to the special inspector’s own fault or falsifies documents. The special inspector shall be provided written notification and shall be afforded the opportunity by the building official to be heard. Decisions may be appealed to the Building Board of Examiners and Appeals.

23.15.1703.7.3.2 Removal of pre-approval status.
Add the following subsection to read as follows:

The building official may revoke or suspend an individual’s pre-approval status when a special inspector neglects duties, demonstrates a lack of knowledge, falsifies documents or misrepresents qualifications. Pre-approved status may be reinstated on recommendation of the Special Inspector Peer Committee or after 365 days and upon submission of proof of additional training or certifications. The special inspector shall be provided written notification and shall be afforded the opportunity by the building official to be heard. Pre-approval status decisions may be appealed to the Building Board of Examiners and Appeals.

23.15.1703.8 Ad hoc special inspector peer committee.
Add a new subsection to read as follows:

An advisory committee of special inspection peers may meet to provide guidance on special inspection matters including but not necessarily limited to, special inspector qualifications, special inspection related code issues, special inspection requirements, remedies to disputes regarding special inspection duties and procedures, and special inspector approval program issues. The Ad Hoc Special Inspection Committee shall be comprised of a balanced membership of peers and shall include a balanced representation of the special inspection profession, design professionals, and public officials. The committee shall meet as required and shall be chaired by the building official or designee. Decisions by the building official may be appealed to the Building Board of Examiners and Appeals. For a quorum, a peer committee requires attendance of individuals from four (4) businesses performing similar special inspections, and the building official.

23.15.1704.2.4 Report requirement.
Delete the fourth and fifth sentence and replace with the following:
All discrepancies shall be brought to the immediate attention of the contractor for correction, and shall be documented in a Special Inspection Report. If action is not taken immediately or within an agreed time frame to correct the nonconformance, the Special Inspector shall promptly inform the registered design professional and the building official, verbally and in writing through a Special Inspection Report. Discrepancies discovered by the special inspector after the fact shall be reported to the registered design professional and the building official in writing. Copies of inspection reports shall be available at the construction site for review by Municipality Building Safety Personnel.

23.15.1705.2.2.1 Welding.
Add the following exception:

Special inspection of welds under this section shall not be required where \( R_a < 0.5 \Phi Rn \) for LRFD or \( R_a < 0.5 Rn/\Omega \) for ASD, and where welds are placed by AWS certified welders. The registered design professional in responsible charge shall indicate on the drawings which welds do not require special inspection under this chapter.

23.15.1705.3 Concrete construction.
Add the following exception:

6. Shotcrete work not of a structural nature or not for water retention structures, are fully supported on earth, are for minor repairs, or when no special hazard exist, where approved by the building official.

23.15.1705.18 Post-installed concrete and masonry anchors.
Add the following section to read as follows:

Post-installed concrete and masonry anchors do not require special inspection where all of the following are met:
1. The building Risk Category is I, II, or III;
2. The building is not classified as a high-rise;
3. The non-structural component importance factor, \( I_p \), is 1.0;
4. The tension/shear interaction demand/capacity ratio is less than 0.50.

23.15.1802.1 Definitions.
Add the following definitions:

COLD FOUNDATION. Any foundation where the temperature of the bearing soil is normally subject to freezing.

REGISTERED DESIGN PROFESSIONAL. For purposes of this chapter, a civil engineer licensed in the State of Alaska.
**WARM FOUNDATION.** Any foundation where the temperature of the bearing soil is normally maintained.

23.15.1803.5.4 **Groundwater table.**
Delete the section and replace with the following:

Any subsurface soil investigation completed in accordance with this chapter shall identify the location and elevation of any ground water found within the limits explored.

23.15.1803.5.10 **Alternate setback and clearance.**
Delete the section and replace with the following:

A geotechnical investigation shall be conducted to demonstrate the stability of any slope supporting or adjacent to a foundation. The investigation shall include consideration of the geotechnical conditions, slope geometry, load intensity, erosion characteristics of the materials, and potential reduction in soil strength due to cyclic loading or liquefaction. Evaluation of the slope stability shall be performed by a registered design professional in accordance with Section 23.15.1803.5.12.

23.15.1803.5.12 **Seismic Design Categories D through F.**
Add the following items:

5. A slope shall be considered stable if, based on a limit equilibrium analysis, the minimum factor of safety:

   a. Equals or exceeds 1.50 under static and post-earthquake loading conditions, and;
   b. Equals or exceeds 1.10 under earthquake loading conditions using a horizontal seismic coefficient of 0.30 in Seismically-Induced Ground Failure Zones 1, 2, and 3; and 0.20 in Seismically-Induced Ground Failure Zones 4 and 5.

For slopes that do not satisfy all of the above criteria, the building official may approve an evaluation of the slope performance using a displacement-based method, including methods derived from the Newmark sliding block model, or more advanced numerical modeling. Evaluations of slopes using any displacement-based method shall be based on site-specific probabilistic or deterministic ground motions predicted in accordance with Section 21.1 of ASCE 7, with a 2 percent probability of exceedance within a 50-year period.

6. It may be necessary to extend the geotechnical investigation beyond the immediate site boundaries in order to evaluate the applicable hazard.
7. For Risk Category I and II structures that are located in Seismically-Induced Ground Failure Zones 1, 2, or 3, it is permitted to evaluate the potential for, and consequences of, liquefaction and soil strength loss described above may be determined using simplified screening methods based on historic records, surficial geology, a minimum peak ground acceleration of 0.4 times the design short period spectral acceleration (S_DS), and magnitudes of the characteristic earthquakes on all known active faults with the site region.

23.15.1803.5.13 Permafrost.
Add a new subsection to read as follows:

A subsurface investigation shall be performed to evaluate whether permafrost exists at any building site located within areas delineated on the Mass Wasting map (Anchorage Coastal Resources Atlas, Vol. 1: The Anchorage Bowl, 1980) as having a high potential for isolated permafrost conditions.

23.15.1803.6 Reporting.
Add the following to the end of Item 5:

“…, and mitigation of the effects of seasonal freezing and thawing, and permafrost.”

23.15.1804.3 Site grading.
Add the following paragraph at the end of the section:

There shall not be an increase in surface drainage to adjacent properties. Approved drainage locations shall conform to Title 21 requirements for stormwater treatment and discharge.

23.15.1804.5 Compacted fill material.
Replace “90 percent” in the exception with “95 percent”.

23.15.1805.1.3 Ground-water control.
Add the following sentence at the end of the paragraph:

The space between the side of a basement excavation and the exterior of a basement wall shall be backfilled for half the height of the excavation with the same material (Type GW, GP, SW, or SP soils) on which the footing is placed.

23.15.1805.3 Waterproofing.
Add the following paragraph to the end of the section:

All exterior below grade walls enclosing habitable spaces shall be waterproofed in accordance with Section 1805.3.2.
23.15.1807.1.4 **Permanent wood foundation systems.**
Add the following sentence to the beginning of the first paragraph:

All footings shall be concrete. Permanent wood foundation systems may only be installed in Type GW, GP, SW, or SP soils unless a complete geotechnical investigation and foundation design, prepared by a registered design professional, is submitted for review.

Add the following paragraph at the end of the section:

Hot dipped zinc-coated fasteners may not be used for basement or crawlspace construction. Fasteners and anchor bolts used in concrete footings shall be stainless steel. Anchor bolts shall be a minimum of 10 inch (254 mm) length by 5/8 inch (16 mm) nominal diameter with a minimum embedment of 7 inches (178 mm) into the concrete. Treated wood foundation plates and sills shall be installed in accordance with Section 2308.6.

23.15.1807.3.1 **Limitations.**
Add the following item at the end of the section:

The embedment depth to least dimension shall be less than or equal to 12.

23.15.1808.1 **General.**
Add the following to the beginning of the first paragraph:

Shallow foundations shall be constructed of masonry, concrete, or treated wood. Footings of concrete or masonry shall be of solid material. Foundations supporting wood shall extend a minimum of 6 inches (152 mm) above the adjacent grade. Unless other recommendations are provided in a foundation investigation report the upper 12 inches (305 mm), peat or organic silts (Pt., OL, or OH soils as defined by the Unified Soil Classification System) shall not be used for backfill within 18 inches (457 mm) of the foundation.

23.15.1808.7 **Foundations on or adjacent to slopes.**
Add the following to the end of the first sentence:

“..., or 15 feet (4,572 mm) beyond the surface projection of the most critical theoretical failure surface plane determined from the slope stability analysis in accordance with Section 23.15.1803.5.10, whichever is greater.”

23.15.1809.5 **Frost protection.**
Delete the first sentence and replace with the following:

Foundations and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:
Delete Item 2 and replace with the following:

Designing in accordance with ASCE 32, using a Design Air-Freeze Index (F100) of 3,340 F-Days; or

Add the following at the end of the section:

Minimum footing depths shall be as indicated in Table 23.15.1809.5. Footings shall bear on undisturbed natural inorganic soil, or suitably compacted fill.

Add the following table:

Table 23.15.1809.5 Minimum footing depths.

<table>
<thead>
<tr>
<th>Foundation Type</th>
<th>Minimum Footing Depth (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Warm Foundation</td>
</tr>
<tr>
<td>Perimeter footing ¹</td>
<td>42</td>
</tr>
<tr>
<td>Interior continuous or isolated spread footing ²</td>
<td>8</td>
</tr>
<tr>
<td>Cast-in-place concrete pier</td>
<td>42</td>
</tr>
<tr>
<td>Exterior isolated foundation</td>
<td>N/A</td>
</tr>
</tbody>
</table>

For SI: 1 inch = 25.4 mm

Notes:

1. Dimension indicated is from bottom of footing to adjacent exterior grade. Required depth to bottom of footing within a crawlspace shall not be less than 8 inches (203 mm). Basements or crawl space walls supporting more than 5 feet (1,524 mm) of differential fill on opposite faces shall be restrained as necessary against lateral movement.

2. Dimension indicated is from bottom of footing to nearest adjacent grade.

3. Exterior decks, landings, and platforms attached to the building and not greater than 72 inches (1,829 mm) above grade may bear directly on ground. Bearing material shall meet other provisions of this code. The potential for and the effects of seasonal freeze and thaw shall be considered.

4. The minimum footing depths may not be adequate for frost susceptible soils. Cold footings shall be founded below the frost line, or be protected from freezing with insulation or appropriate means. The effects of seasonal freeze and thaw shall be considered.

5. The minimum footing depth for foundations installed in non-frost susceptible soils may be 60 inches (1,524 mm).

6. Non-load bearing site structures not attached to the building, such as fences, light poles, and sign posts, shall have a footing depth based on analysis of the vertical and lateral loads on the structure, and shall consider the effects of seasonal freeze and thaw.
23.15.1810.3.1 Design conditions.
Add the following at the end of the sentence:

"..., with consideration of the effects of seasonal freeze and thaw."

23.15.1810.3.2.3 Structural steel.
Add the following exception:

Exception:

The building official may approve alternate material specifications where documentation is provided showing the specified material meets or exceeds the requirements for stress, ductility, weldability, and corrosion resistance of any of the listed specifications.

23.15.1810.3.5.3.2 Steel pipes and tubes.
Add the following exception:

The building official may permit smaller diameter piles provided that an analysis is submitted indicating that the piles have sufficient capacity to transfer the required gravity and lateral loads. The safe installation of the piles of smaller diameter is the responsibility of the contractor.

23.15.1905 Modifications to ACI 318.
Replace the section in its entirety with the following:

1905.1 General. The text of ACI 318 shall be modified as indicated in Sections 1905.1.1 through 1905.1.10.

1905.1.1 ACI 318, Section 2.2. Modify existing definitions and add the following definitions to ACI 318, Section 2.2:

DESIGN DISPLACEMENT. Total lateral displacement expected for the design-basis earthquake, as specified by Section 12.8.6 of ASCE 7.

DETAILED PLAIN CONCRETE STRUCTURAL WALL. A wall complying with the requirements of Chapter 22, including 22.6.7.

FREEZING/NEAR FREEZING WEATHER. A period when, for more than 3 consecutive days, the following conditions exist: (1) the average daily air temperature is less than 40 degrees F; and (2) the air temperature is not greater than 50 degrees F for more than one-half of any 24-hour period. The average daily air temperature is the average of the highest and lowest temperatures occurring during the period from midnight to midnight.
ORDINARY PRECAST STRUCTURAL WALL. A precast wall complying with the requirements of Chapters 1 through 18.

ORDINARY REINFORCED CONCRETE STRUCTURAL WALL. A cast-in-place wall complying with the requirements of Chapters 1 through 18.

ORDINARY STRUCTURAL PLAIN CONCRETE WALL. A wall complying with the requirements of Chapter 22, excluding 22.6.7.

SPECIAL STRUCTURAL WALL. A cast-in-place or precast wall complying with the requirements of 21.1.3 through 21.1.7, 21.9 and 21.10, as applicable, in addition to the requirements for ordinary reinforced concrete structural walls or ordinary precast structural walls, as applicable. Where ASCE 7 refers to a “special reinforced concrete structural wall,” it shall be deemed to mean a “special structural wall.”

1905.1.2 ACI 318, Section 6.3. Modify ACI 318, Section 6.3, by adding new Section 6.3.13:

6.3.13 - Except where approved by the registered design professional, anchors shall be tied in place prior to placing concrete.

Exception:
Anchors for light-framed construction having a required embedment length of 7 inches (178 mm) or less may be field placed while the concrete is in plastic condition.

1905.1.3 ACI 318, Section 21.1.1. Modify ACI 318 Sections 21.1.1.3 and 21.1.1.7 to read as follows:

21.1.1.3 - Structures assigned to Seismic Design Category A shall satisfy requirements of Chapters 1 to 19 and 22; Chapter 21 does not apply. Structures assigned to Seismic Design Category B, C, D, E or F also shall satisfy 21.1.1.4 through 21.1.1.8, as applicable. Except for structural elements of plain concrete complying with Section 1905.1.8 of the International Building Code, structural elements of plain concrete are prohibited in structures assigned to Seismic Design Category C, D, E or F.

21.1.1.7 - Structural systems designated as part of the seismic-force-resisting system shall be restricted to those permitted by ASCE 7. Except for Seismic Design
Category A, for which Chapter 21 does not apply, the following provisions shall be satisfied for each structural system designated as part of the seismic force-resisting system, regardless of the Seismic Design Category:

(a) Ordinary moment frames shall satisfy 21.2.
(b) Ordinary reinforced concrete structural walls and ordinary precast structural walls need not satisfy any provisions in Chapter 21.
(c) Intermediate moment frames shall satisfy 21.3.
(d) Intermediate precast structural walls shall satisfy 21.4.
(e) Special moment frames shall satisfy 21.5 through 21.8.
(f) Special structural walls shall satisfy 21.9.
(g) Special structural walls constructed using precast concrete shall satisfy 21.10.

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7.

1905.1.4 ACI 318, Section 21.4. Modify ACI 318, Section 21.4, by adding new Section 21.4.3 and renumbering existing Sections 21.4.3 and 21.4.4 to become 21.4.4 and 21.4.5, respectively:

21.4.3 - Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.

21.4.4 - Elements of the connection that are not designed to yield shall develop at least 1.5 $S_y$.

21.4.5 – In structures assigned to SDC D, E, or F, wall piers shall be designed in accordance with 21.9 or 21.13 in ACI 318.

1905.1.5 ACI 318, Section 21.10. Modify ACI 318, Section 21.10.2, to read as follows:

21.10.2 - Special structural walls constructed using precast concrete shall satisfy all the requirements of 21.9 for cast-in-place special structural walls in addition to Sections 21.4.2 through 21.4.4.

1905.1.6 ACI 318, Section 21.12.1.1. Modify ACI 318, Section 21.12.1.1, to read as follows:

21.12.1.1 - Foundations resisting earthquake-induced forces or transferring earthquake-induced forces
between a structure and ground shall comply with the requirements of Section 21.12 and other applicable provisions of ACI 318 unless modified by Chapter 18 of the International Building Code.

1905.1.7 ACI 318, Section 22.6. Modify ACI 318, Section 22.6, by adding new Section 22.6.7 to read as follows:

22.6.7 - Detailed plain concrete structural walls.

22.6.7.1 - Detailed plain concrete structural walls are walls conforming to the requirements of ordinary structural plain concrete walls and 22.6.7.2.

22.6.7.2 - Reinforcement shall be provided as follows:

(a) Vertical reinforcement of at least 0.20 square inch (129 mm²) in cross-sectional area shall be provided continuously from support to support at each corner, at each side of each opening and at the ends of walls. The continuous vertical bar required beside an opening is permitted to substitute for one of the two No. 5 bars required by 22.6.6.5.

(b) Horizontal reinforcement at least 0.20 square inch (129 mm²) in cross-sectional area shall be provided:

1. Continuously at structurally connected roof and floor levels and at the top of walls;

2. At the bottom of load-bearing walls or in the top of foundations where doweled to the wall; and

3. At a maximum spacing of 120 inches (3048 mm). Reinforcement at the top and bottom of openings, where used in determining the maximum spacing specified in Item 3 above, shall be continuous in the wall.

1905.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10 - Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1 - Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:
(a) Structural plain concrete basement, foundation or other walls below the base are permitted in detached one- and two-family dwellings three stories or less in height constructed with stud bearing walls. In dwellings assigned to Seismic Design Category D or E, the height of the wall shall not exceed 8 feet (2438 mm), the thickness shall not be less than 7-1/2 inches (190 mm), and the wall shall retain no more than 4 feet (1219 mm) of unbalanced fill. Walls shall have reinforcement in accordance with 22.6.6.5.

(b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

Exception:
In detached one- and two-family dwellings three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

(c) Plain concrete footings supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. For footings that exceed 8 inches (203 mm) in thickness, a minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

Exceptions:

1. In Seismic Design Categories A, B and C, detached one-and two-family dwellings three stories or less in height constructed with stud-bearing walls, are permitted to have plain concrete footings without longitudinal reinforcement.
2. For foundation systems consisting of a plain concrete footing and a plain concrete stemwall, a minimum of one bar shall be provided at the top of the stemwall and at the bottom of the footing.

3. Where a slab on ground is cast monolithically with the footing, one No. 5 bar is permitted to be located at either the top of the slab or bottom of the footing.

1905.1.9 ACI 318, Section D.3.3. Modify ACI 318 Sections D.3.3.4.2, D.3.3.4.3(d) and D.3.3.5.2 to read as follows:

D.3.3.4.2 - Where the tensile component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor tensile force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.4.3. The anchor design tensile strength shall be determined in accordance with D.3.3.4.4.

Exception:
Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 shall be deemed to satisfy Section D.3.3.4.3(d).

D.3.3.4.3(d) - The anchor or group of anchors shall be designed for the maximum tension obtained from design load combinations that include E, with E increased by $\mathcal{E}$. The anchor design tensile strength shall be calculated from D.3.3.4.4.

D.3.3.5.2 – Where the shear component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor shear force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.5.3. The anchor design shear strength for resisting earthquake forces shall be determined in accordance with D.4.1.1.

Exceptions:
1. For the calculation of the in-plane shear strength of anchor bolts attaching wood sill plates of bearing or non-bearing walls of light-frame wood structures to foundations or foundation stem walls, the in-plane
design shear strength in accordance with D.6.2 and D.6.3 need not be computed and D.3.3.5.3 shall be deemed to be satisfied provided all of the following are met:

1.1. The allowable in-plane shear strength of the anchor is determined in accordance with AF&PA NDS Table 11E for lateral design values parallel to grain.

1.2. The maximum anchor nominal diameter is 5/8 inches (16 mm).

1.3. Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).

1.4. Anchor bolts are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.

1.5. Anchor bolts are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the wood sill plate.

1.6. The sill plate is 2-inch or 3-inch nominal thickness.

2. For the calculation of the in-plane shear strength of anchor bolts attaching cold-formed steel track of bearing or non-bearing walls of light-frame construction to foundations or foundation stem walls, the in-plane design shear strength in accordance with D.6.2 and D.6.3 need not be computed and D.3.3.5.3 shall be deemed to be satisfied provided all of the following are met:

2.1. The maximum anchor nominal diameter is 5/8 inches (16 mm).

2.2. Anchors are embedded into concrete a minimum of 7 inches (178 mm).

2.3. Anchors are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the track.

2.4. Anchors are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the track.

2.5. The track is 33 to 68 mil designation thickness.

Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be permitted to be determined in accordance with AISI S100 Section E3.3.1.

3. In light-frame construction, bearing or nonbearing walls, shear strength of concrete anchors less than or
equal to 1 inch [25 mm] in diameter attaching sill plate or track to foundation or foundation stem wall need not satisfy D.3.3.5.3(a) through (c) when the design strength of the anchors is determined in accordance with D.6.2.1(c).

23.15.2104.5  Installation of anchors.  Add a new subsection to read as follows:

2104.5 Installation of anchors.  Except where approved by the registered design professional, anchors shall be tied in place prior to grouting.

Exception: Anchors for light-framed construction having a required embedment of 13 inches (330 mm) or less may be field placed while grout is in plastic condition.

23.15.2106.2  ASCE 7 Section 13.4.2.2.  Amend ASCE 7 Section 13.4.2.2 by deleting the second sentence and the exception.

23.15.2106.3  ASCE 7 Section 15.4.9.2.  Amend ASCE 7 Section 15.4.9.2 by deleting the second sentence and the exception.

23.15.2209.1  Storage racks.  Add the following exception to 2209.1:

Exception: The building official may waive the design requirement for storage racks less than or equal to 8 feet (2,438 mm) in height.

23.15.2303.4.5  Alterations to trusses.  Revise the last sentence to read as follows.

Alterations resulting in the addition of loads to any member (e.g., HVAC equipment, piping, additional roofing or insulation, etc.) shall be evaluated in accordance with Section 403 of the International Existing Building Code.

23.15.2304.11.2.2  Wood supported by exterior foundation walls.  Replace “8 inches (203 mm)” in the sentence with “6 inches (152 mm)”.

23.15.2305.4  Anchorage at shear wall ends.  Add the following section:

2305.4 Anchorage at shear wall ends.  1,000 lbs. (4.45 kN) (ASD) net uplift at shear wall boundaries for upper story walls and 1,500 lbs (6.67 kN) (ASD) net uplift for shear walls directly connected to concrete or masonry foundations may be neglected when determining overturning
restraint. Where overturning forces exceed these limits, the full
calculated force must be used to design the anchorage.

23.15.2305.5 NDS SDPWS Section 4.3.6.
Add the following exceptions to NDS SDPWS Section 4.3.6.4.3:

d. A 3x nominal sill plate may be used in lieu of extending the
   washer to within 1/2 inch (13 mm) of the edge of the plate on
   the side(s) with sheathing.

e. Where required nominal capacity does not exceed 1,200 plf
   (17.5 kN/m), a 2x nominal sill plate may be used where the sill
   plate is anchored using two times the number of anchors
   required by design and 0.229-inch by 3-inch by 3-inch (5.82 mm
   by 76 mm by 76 mm) plate washers are used.

23.15.2308.9.2.2 Top plates for studs spaced at 24 inches.
Delete the section and replace with the following:

When bearing studs are spaced at 24-inch (610 mm) intervals, joists or
trusses shall bear within 5 inches (127 mm) of the studs beneath or a
third plate shall be installed.

23.15.2308.9.8 Pipes in walls.
Add the following paragraph at the end of the section:

All studs in exterior plumbing walls shall be a minimum 6-inch (152 mm)
nominal width unless otherwise approved.

23.15. Table 2902.1.
Replace the reference to section 410.1 of the International Plumbing Code with
the following:

Where water is served in restaurants, drinking fountains shall not be
required. In other occupancies where drinking fountains are required,
bottle water dispensers shall be permitted to be substituted for the
required drinking fountains. Drinking fountains shall not be required in B
and S occupancies containing break rooms with sinks.

Replace the reference to section 419.2 of the International Plumbing Code with
the following:

Substitutions for water closets. In each bathroom or toilet room, urinals
shall not be substituted for more than 67 percent of the required water
closets.

Replace the reference to section 411 of the International Plumbing Code with
the following:

Waste connections shall not be required for emergency showers and
eyewash stations.
23.15.3004.3  Area of vents.
Change the last sentence in section 3004.3, exception, to read as follows:

The manual override control shall be capable of opening and closing the vents, and shall be located adjacent to the elevator entrance(s) at the primary recall floor, which is the main entry and egress level of the building, or it may be located adjacent to the main fire alarm panel in the building. The manual override control shall be in the form of a two (2) position switch (it may be keyed if desired), and shall be labeled “Elevator Hoistway Ventilation Manual Override Switch”. It shall also be labeled with the open and closed positions.

23.15.3005.4  Personnel and material hoists.
Add new first sentence to read:

Personnel and material hoists shall meet the requirements of ANSI A10.4.

Add new subsection 3005.4.1 to read:

3005.4.1 Elevators for construction and demolition. All elevators, hoists, and material lifts used for construction to convey personnel and materials for construction and demolition operations shall be required to be certified by either the elevator or lift manufacturer or an independent, NAESA certified elevator inspector at the start of construction, prior to initial use, and each six (6) months thereafter while it remains installed at the project site. Such inspection shall include, but is not be limited to, inspection of the erected frame, the motor, hoist mechanisms, braking mechanism, means of entry and egress, load testing, and governor test. Tests reports and certification letter shall be submitted to the elevator section of the Building Safety Division within 72 hours of completion of the inspection. This requirement shall be retroactive to all permits, started prior to the approval of this code which remain open.

All outstanding non-conformances to ANSI A10.4 shall be corrected, reinspected, and certified before said elevator or hoist is placed in use.

23.15.3006.1  Access.
Add new paragraph to read:

Access to elevator machine rooms shall be from the inside of the building or shall be by an enclosed, ventilated, and well lighted passageway protected from the weather. Passageway shall be a minimum of 3'-6" wide by 6'-8" high, and shall meet the material and construction requirements of this code.

23.15.3412.2  Applicability.
Insert the date "June 9, 1948" in the space provided.
23.15 Appendix.
Adopt Appendices A, C, G and H.

23.15.H.101.2 Signs exempt from permits.
Delete subsection in its entirety and substitute the following:

A. The following signs shall not require a permit under this chapter. An exemption shall not affect the requirement that a sign be installed and maintained so as to conform with the new requirements of this code and any other applicable law.

1. The changing of the advertising copy or message on a painted or printed sign only. Except for theater marquees or similar signs specifically designed for the use of replaceable copy, electric signs shall not be included in this exemption.

2. Painting, repainting or cleaning of an advertising structure or the changing of advertising copy or message thereon shall not be considered an erection or alteration requiring a sign permit, unless structural change is made.

3. Official signs erected by a federal, state or municipal agency.

4. Signs not exceeding six (6) square feet in area on any one of its faces.

5. Signs affixed to or painted on a currently operable and licensed vehicle.

6. Printed messages carried on any surface not attached to or supported from the ground or from a structure. (OA 88-30S).

23.15.H.101.3 Permits required.
Add a new section H.101.3 to read as follows:

A sign permit shall be required before any sign is erected. No permit shall be issued unless the proposed sign fully conforms to all requirements of this chapter and of Anchorage Municipal Code title 21.

23.15.H.101.4 Application for permit.
Add a new section H.101.4 as follows:

A. An application for a sign permit shall be made in writing on forms prescribed by the building official and shall be complete only if accompanied by:

1. The location by street and number of the proposed sign structure;

2. The name, address, and telephone number of owner of the property on which the sign is to be erected;

3. The name, address, and telephone number of the sign contractor or erector;

4. A drawing to scale showing the design of the sign, including dimensions, sign size, method of attachment, structural specifications, source of illumination and showing the
relationship to any building or structure to which it is or is
proposed to be installed or affixed to which it relates;

5. For permanent, freestanding signs only, a plot plan to scale,
indicating location of the sign relative to property lines, streets
and sidewalks, utility easements, buildings, driveways,
parking spaces, existing signs, and structures identified by
their principal use; and

6. Such other information as the building official determines is
reasonably necessary to an evaluation of the proposed sign’s
compliance with this code.

CHAPTER 23.20 LOCAL AMENDMENTS TO THE INTERNATIONAL
MECHANICAL CODE 2012 EDITION

Sections

23.20.100 Local amendments to the International Mechanical Code,

23.20.101.2 Scope.

23.20.103-110 Delete.

23.20.202 General definitions.

23.20.302 Protection of structure.

23.20.303.4 Protection from damage.

23.20.304.3 Elevation of ignition source.

23.20.304.13 Aircraft hangars.

23.20.306.3 Appliances in attics.

23.20.306.4 Appliances under floors.

23.20.306.5 Equipment and appliances on roofs or elevated
structures.

23.20.306.5.2 Electrical requirements.

23.20.306.6 Mezzanines and platforms.

23.20.401.2 Ventilation required.

23.20.401.4.1 Mechanical intake openings serving single-family
dwelling units.

23.20. Table 401.5 Opening sizes in louvers, grilles and screens protecting
air intake openings.

23.20. Table 403.3 Minimum ventilation rates.

23.20. Table 403.3.1.2 Zone air distribution effectiveness.

23.20.501.3 Exhaust discharge.

23.20.501.3.1.1 Exhaust discharge.

23.20.501.3.2 Exhaust opening protection.

23.20.504.6.4.2 Manufacturer’s instructions.

23.20.504.6.5 Length identification.

23.20.505.1 Domestic systems.

23.20.505.2 Makeup air required.

23.20.507.2.1.1 Operation.

23.20.507.2.3 Domestic cooking appliances used for commercial
purposes.

23.20.507.9 Clearances for Type I hood.

23.20.511.1 Dust, stock and refuse conveying systems.

23.20.515.1 Multi-port exhaust fans.
The amendments to the International Mechanical Code (IMC) are listed hereafter by section. The last digits of the section number (after the title and chapter digits) are the section of the International Mechanical Code to which the amendment refers, i.e., 23.20.303 refers to amendments to section 303 of the International Mechanical Code).

**23.20.100** Local amendments to the International Mechanical Code, 2012 Edition.

**23.20.101.2** Scope.
Delete the exception.

**23.20.103-110**
Delete sections 103 through 110. Refer to the Anchorage Administrative Code.

**23.20.202** General definitions.
Add the following definition:

**Commercial clothes dryer.** Factory built package, multiple production. Used in business with direct intercourse of the function with the public. Not designed for use in individual family living environment.

Add to the end of the definition of “**Clothes dryer**” a new sentence:

Also see “Commercial clothes dryer”.
23.20.302 Protection of structure.

Add the following section:

302.6 Roof penetrations. For roof construction regulated by the IRC:
1. No penetrations shall be located in required valley ice barrier.
2. All roof penetrations, excluding attic ventilation, shall be located a minimum of six feet from valley centerline and four feet from the exterior wall line measured on a horizontal plane.
3. All roof penetrations shall extend above the roof surface a minimum of 24 inches, except attic ventilation.

23.20.303.4 Protection from damage.

Add the following section:

303.4.1 Appliances subject to vehicle impact. Appliances, including their associated piping and ductwork, subject to vehicle impact shall be protected by one or more of the following methods:

1. Install the appliance on a platform a minimum of 24 inches high. The appliance shall not extend beyond the face of the platform. Piping and ductwork shall not be surface mounted to the platform in a location subject to vehicle impact.
2. Protect the appliance with a barrier. The barrier shall be a minimum of 30" high and be constructed of a minimum 2" diameter schedule 40 steel pipe. The barrier must have a minimum 6" setback from the platform or appliance. The maximum unprotected distance shall not exceed five (5) feet. The barrier shall be installed per one of the following methods:
   a. Buried a minimum of 2'0" deep in compacted soil and imbedded in concrete slab
   b. Set in a minimum 1'0" x 1'0" square by 1'0" deep block of concrete (slab not included).
   c. Secured to the wood framed garage floor with flange and stainless steel bolts and imbedded in concrete slab.
   d. Secured to the concrete slab using a floor flange with a minimum of four 3/8" diameter by 3 ½" long galvanized or stainless anchor bolts.
3. Mount appliance and associated piping and ductwork to wall and/or suspend from the ceiling in a location clear of any potential vehicle interference.

In all cases the minimum clear width and depth of the garage shall be maintained in accordance with Title 21.

23.20.304.3 Elevation of ignition source.

Amend section 304.3 by adding the following to the end of the paragraph:
Rooms and spaces that are not part of the living space of a dwelling unit shall include but are not limited to utility, storage, mud, laundry, toilet and bathing rooms.

Group F, M and S occupancies with overhead doors providing access to vehicles and equipment containing combustible fuel shall comply with this section.

Delete the exception.

### 23.20.304.13 Aircraft hangars.

Amend by adding a new section as follows:

**304.13 Aircraft hangars.** Overhead appliances installed in aircraft storage areas shall be located at least 10’ vertically above the upper surface of the wings or engine enclosure of the tallest aircraft which may be housed in the hangar.

**Exception.** Where a 10’ vertical separation cannot be maintained in an NFPA 409 Class III hangar, a sealed combustion appliance may be used. The appliance shall be located as high and as far away from the wings and engine enclosure as possible. This exception shall not apply to NFPA 409 Class I and Class II hangars.

### 23.20.306.3 Appliances in attics.

Add a new Exception 3 as follows:

**Exception 3.** The passageway and level surface are not required for replacement of horizontal furnaces located above drop ceilings in strip malls. All other code requirements apply.

### 23.20.306.4 Appliances under floors.

Amend by adding the following as the first sentence:

Installation of fuel burning appliances in under-floor crawl spaces is prohibited unless prior written approval is obtained from the authority having jurisdiction.

Add Exception #3 as follows:

**Exception #3.** Direct vent appliances can be installed as long as no water or sign of water is present and the installation is in accordance with IMC 304.10.

### 23.20.306.5 Equipment and appliances on roofs or elevated structures.

At the end of item #2 add the following sentence:

The bottom rung of the ladder shall be located within 14” of floor or grade.
Add exception number 2 to section 306.5 as follows:

2. Where equipment requiring access and appliances are installed on the roof of a new building or new building addition, such access shall be provided by a permanent approved means, interior to the building, extending from floor level to the equipment and/or appliances level service space, regardless of the roof height.

23.20.306.5.2 Electrical requirements.
Revise the sentence to read as follows:

A receptacle outlet shall be provided as required by the N.E.C.

23.20.306.6 Mezzanines and platforms.
Add a new section as follows:

306.6 Mezzanines and platforms. Every mezzanine or platform containing appliances or equipment requiring access more than ten feet, six inches above the ground or floor level shall be made accessible by a stairway or ladder fastened to the structure. The ladder shall be constructed in compliance with the provisions of Local Amendment 23.20.306.5.

23.20.401.2 Ventilation required.
Amend section 401.2 by revising the first sentence to read as follows:

Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with one of the following applicable options:

1) Section 403,
2) ASHRAE Standard 62.1-2010, Ventilation for Acceptable Indoor Air Quality, or

Exception: Nail salon ventilation shall be in accordance with Table 403.3.

23.20.401.4.1 Mechanical intake openings serving single-family dwelling units.
Add a new section as follows:

401.4.1 Mechanical intake openings serving single family dwelling units. Mechanical outdoor air intake openings serving single family dwelling units shall be located a minimum of six (6) feet horizontally from a gas pressure regulator relief vent outlet. Where a vent outlet is located within six (6) feet horizontally of a mechanical outdoor intake opening, such opening shall be located a minimum of two (2) feet below
23.20. Table 401.5  Opening sizes in louvers, grilles and screens protecting air intake openings.
Revise the minimum and maximum opening sizes as follows:

<table>
<thead>
<tr>
<th>OUTDOOR OPENING TYPE</th>
<th>MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS MEASURED IN ANY DIRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake openings in residential occupancies</td>
<td>½ inch</td>
</tr>
<tr>
<td>Intake openings in other than residential occupancies</td>
<td>Not &lt; ½ inch and not &gt; 1 inch</td>
</tr>
</tbody>
</table>

23.20. Table 403.3 Minimum ventilation rates.
Revise footnote h to read as follows:

h. For nail salons, each nail station shall be provided with a source capture system capable of exhausting not less than 50 cfm per station. The exhaust inlet shall be located within 24 inches of the nail application, and the exhaust air stream shall not impinge on an occupant. These provisions apply to manicure applications and are recommended for pedicures.

23.20. Table 403.3.1.2 Zone air distribution effectiveness.
In the last row of the table, delete the words "near to" and add in their place "within 4 feet of".

23.20.501.3 Exhaust discharge.
Delete Exception #1 to 501.3.

23.20.501.3.1 Exhaust discharge.
Insert the word "public" between the words "onto" and "walkways".

23.20.501.3.2 Exhaust opening protection.
Delete the words "1/4 inch (6mm) and not larger than".

23.20.504.6.4.2 Manufacturer’s instructions.
Add a sentence to the end of the paragraph to read:

The duct shall be routed using the shortest possible distance and/or the least number of 45 and 90 degree elbows, as possible.

Add the following exception:
Exception: For distances exceeding the dryer manufacturer's recommendations, a booster fan, listed for the purpose, shall be used for lengths up to the booster fan manufacturer's recommendations.

23.20.504.6.5 Length identification.
Replace the words "equivalent length" with the words "total length plus total number of elbows".

Add to the end of the paragraph:

"and shall be laminated or in a moisture-resistant sleeve secured to the wall using screws, staples, or thumb tacks. Push pins are not acceptable."

23.20.505.1 Domestic systems.
Delete the first sentence and replace with the following:

Each domestic range, fuel-fired or electric, shall be equipped with either a range hood or an integral downdraft exhaust system discharging to the exterior of the building through a duct constructed of galvanized steel, stainless steel, aluminum, or copper. Clearance above the cook top shall be at least thirty (30) inches to unprotected combustible material. When the underside of such combustible material is protected with insulating millboard at least one-quarter (1/4) inch thick covered with 0.021 inch thick (No. 28 U.S. gauge) sheet metal or metal ventilating hood, the distance shall not be less than twenty-four (24) inches.

Delete Exception No. 1.

23.20.505.2 Makeup air required.
Amend paragraph by adding the following:

Exception: A back draft test may be performed to verify proper operation of all combustion appliances. If back draft occurs under any operational scenario, makeup shall be required.

23.20.507.2.1.1 Operation.
Delete the first two sentences.

23.20.507.2.3 Domestic cooking appliances used for commercial purposes.
Add the following exception:

Exception: A residential gas or electric stovetop with up to 4 burners, used for warming foods in a commercial building application such as an office building break room or church kitchen may utilize a residential or Type II exhaust hood, vented to the exterior under the following stipulations:

1. The intended use will not produce grease laden vapors or smoke.
2. A letter of intended use is submitted to the AHJ stating the intended use with a printed menu if applicable. This provision does not apply to office break rooms.

3. A permanent laminated or moisture resistant sign shall be placed in plain sight within 6 feet of the stove top stating “Cooking that produces grease laden vapors or smoke is prohibited.” This provision does not apply to office break rooms.

23.20.507.9 Clearances for Type I hood.
Change the ending of the last sentence of the Exception after “(457 mm)” to read “…on sides and above, and continuous to the floor.”

23.20.511.1 Dust, stock and refuse conveying systems.
Amend by adding the following exception to section 511.1:

Exception: Manufactured dust collectors and separators designed and installed in accordance with NFPA 664.

23.20.515.1 Multi-port exhaust fans.
Add new section as follows:

515.1 Multi-port exhaust fans. Multi-port exhaust fan installations shall comply with the following:

1. This type of fan may be used for exhausting environmental air such as bathrooms and toilet rooms and shall not be used for clothes dryer or range exhaust.

2. If this fan is installed in the attic, it shall be within three (3) feet of the attic access and the exhaust registers it serves shall be permanently labeled as to the location of the fan for service and maintenance.

3. The operating range for these fans is limited to -40 degrees F to +140 degrees F.

4. Combustion air requirements for fireplaces, water heaters, furnaces, boilers, etc., shall not be effected by the use or operation of this type of fan.

5. These fans shall not be used to exhaust combustible or flammable vapors, fumes, or dusts.

6. The exhaust fan and ductwork shall be insulated with minimum two (2) inch thick fiberglass duct insulation to minimize heat transfer to the attic space, which can result in ice damming on the roof.

7. All ceiling vapor barrier penetrations shall be sealed airtight to minimize condensation build-up in the attic and ice damming on the roof.

8. All duct seams shall be sealed airtight with duct mastic/sealer to prevent condensation damage in the attic.

23.20.601.4 Contamination prevention.
Amend by adding the following two exceptions:
Exceptions:

***

3. Environmental air exhaust ducts under positive pressure may extend into or through ducts or plenums if one of the following design approaches is used:

   a. Route environmental air exhaust ducts inside a shaft when passing through a duct or plenum.
   b. Install a second duct around the environmental air exhaust duct where passing through ducts and plenums to minimize leakage to the duct or plenum; seal both ends of the outer duct to outside.
   c. Seal the environmental air exhaust ducts along all seams and joints using a listed low to medium pressure duct sealant, typically applied by brush, trowel, or caulking gun; install sealant per manufacturer's recommendations.
   d. Provide flexible duct with no seams in the duct or plenum only to a limit of eight (8) feet. The eight (8) feet limit is due to high static losses. Also, sleeving the metal duct with flexible seamless duct is acceptable.

4. Gas vents installed in accordance with section 503.3.6 in the International Fuel Gas Code.

23.20.602.1 General.
Delete from the first sentence the words “uninhabited crawl spaces”.

Add the following sentence to the end of the paragraph:

Underfloor crawlspaces shall not be used as plenums.

23.20.702 Circulation of air.
Amend by adding the following section:

702 Circulation of air. Fuel burning appliances may be required to pass a back draft test as a part of the final plumbing or mechanical inspection. This test shall be conducted with all exhaust fans operating and with fireplace draft open.

23.20.801.20 Plastic vent joints.
Add to the end of the paragraph:

Solvent cement joints for CPVC and PVC pipe and fittings shall be primed. The primer shall be a contrasting color listed for the use.

23.20.801.21 Location and support of venting systems other than masonry chimneys.
Add a new section as follows:
801.21 Location and support of venting systems other than masonry chimneys. Unless a vent or chimney listed for exterior use in cold weather climates is installed, a vent or chimney system installed exterior to the building outside the thermal envelope shall be enclosed in an insulated (R-19 minimum) chase. The portion of the system above the last roof and its projected plane need not be enclosed. The portion of the system passing through an attic space need not be insulated or enclosed.

23.20.802.9 Vent terminals - ice and snow protection.
Amend by adding the following section:

802.9 Vent terminals – ice and snow protection. Vent terminations penetrating a metal roof with a pitch shall be protected by an ice or snow deflector of an approved type acceptable to the Administrative Authority.

23.20.804.3.4 Horizontal terminations.
Add the following two sentences to Item 6:

An anticipated snow depth of twelve (12) inches shall be used when determining the manufacturer’s minimum vent termination height. Measurements shall be made to the bottom of the vent outlet.

23.20.918.6 Prohibited sources.
Change the wording to the first half of the sentence to read:

"Outdoor, return, or transfer air for a forced-air heating system..."

Change sub-paragraph #6 to read "A crawl space".

23.20.923.2 Small ceramic kilns – ventilation.
Amend by adding the following section:

923.2 Small ceramic kilns - ventilation. A canopy-type hood shall be installed directly above each kiln. The face opening area of the hood shall be equal to or greater than the top horizontal surface area of the kiln. The hood shall be constructed of not less than 0.024-inch (No. 24 U.S. gauge) galvanized steel or equivalent and be supported at a height of between twelve (12) inches and thirty (30) inches above the kiln by noncombustible supports.

Exception: Electric kilns installed with listed exhaust blowers may be used when marked as being suitable for the kiln and installed in accordance with manufacturer’s instructions.

Each hood shall be connected to a gravity ventilation duct extending in a vertical direction to outside the building. This duct shall be of the same construction as the hood and shall have a minimum cross-sectional area of not less than one-fifteenth of the face opening area of the hood. The
duct shall terminate a minimum of twelve (12) inches above any portion of a building within four (4) feet and terminate no less than four (4) feet from any openable windows or other openings into the building or adjacent property line. The duct opening to the outside shall be shielded, without reduction of duct area, to prevent entrance of rain into the duct. The duct shall be supported at each section by noncombustible supports.

Provisions shall be made for air to enter the room in which a kiln is installed at a rate at least equal to the air being removed.

23.20.928  Evaporative cooling equipment.
Revise Section 928.1, item #4 to read:

Be provided with potable water backflow protection in accordance with Section 603.3 of the Uniform Plumbing Code.

23.20.1001.1  Scope.
Amend Exception 7 by deleting the words “or state”.

23.20.1004.4  Mounting.
Add the following to the end of the paragraph:

Boilers shall be installed in a water-tight pan of corrosion-resistant material. The pan shall be equipped with a minimum three quarter (3/4) inch (20mm) diameter drain discharging to an approved location.

Exceptions:
1. A pan is not required when a boiler is installed on a concrete slab.
2. A pan is not required where a corrosion-resistant material is placed under the boiler provided that it covers the entire platform and extends to all walls adjoining the platform and turning up the walls a minimum of two (2) inches.

23.20.1006.6  Safety and relief valve discharge.
Add to the end of the paragraph:

When a boiler is installed on a platform, the boiler relief valve piping shall discharge to between 6" and 24" off the finished floor over the edge of the platform.

23.20.1006.7  Boiler safety devices.
Amend by replacing section 1006.7 with the following:

1006.7  Boiler safety devices. Boilers shall be equipped with controls and limit devices as required by the manufacturer’s installation instructions, Table 1006.7 and the conditions of the listing.
## 23.20. Table 1006.7 – CONTROLS AND LIMIT DEVICES FOR AUTOMATIC BOILERS.

<table>
<thead>
<tr>
<th>Boiler Group</th>
<th>Fuel Type</th>
<th>Fuel Input Range (^1) (Inclusive)</th>
<th>Type Of Pilot (^2)</th>
<th>Trial for Main</th>
<th>Direct Electric Ignition</th>
<th>Flame Pilot</th>
<th>Main Burner Flame Failure (^3)</th>
<th>Assured Fuel Supply Control (^4)</th>
<th>Assured Air Supply Control (^5)</th>
<th>Low Fire Start Up Control (^6)</th>
<th>Pre-Purging Control (^7)</th>
<th>Hot Water Temp. and Low Water Limit Controls (^8)</th>
<th>Steam Pressure and Low Water Limit Controls (^9)</th>
<th>Approved Fuel Shutoff (^10)</th>
<th>Control and Limit Device System Design (^11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Gas</td>
<td>0-400,000 Btu/h</td>
<td>Any type</td>
<td>90</td>
<td>Not required</td>
<td>90</td>
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<td>Required</td>
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<td>B</td>
<td>Gas</td>
<td>400,001-2,500,000 Btu/h</td>
<td>Interrupted or intermittent</td>
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<td>15</td>
<td>15</td>
<td>2-4</td>
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<td>Not required</td>
<td>Required</td>
<td>Not required</td>
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<td>2,500,001-5,000,000 Btu/h</td>
<td>Interrupted or intermittent</td>
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<td>Over 5,000,000 Btu/h</td>
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<td>15</td>
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<td>0-400,000 Btu/h</td>
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<td>90</td>
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<td>90</td>
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<td>400,001-1,000,000 Btu/h</td>
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<td>30</td>
<td>30</td>
<td>2-4</td>
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<td>2-4</td>
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</table>
1. Fuel input shall be determined by one of the following:
   1.1 The maximum burner input as shown on the burner nameplate or as otherwise identified by the manufacturer.
   1.2 The nominal boiler rating, as determined by the building official, plus 25 percent.

2. Automatic boilers shall have one flame failure device on each burner which shall prove the presence of a suitable ignition source at the point where it will reliably ignite the main burner, except that boiler Groups A, B, E, F and G which are equipped with direct electric ignition shall monitor the main burner, and all boiler groups using interrupted pilots shall monitor only the main burner after the prescribed limited trial and ignition periods. Boiler Group A equipped with continuous pilot shall accomplish 100 percent shutdown within 90 seconds upon pilot flame failure. The use of intermittent pilots in boiler Group C is limited to approved burner units.

3. In boiler Groups B, C and D, a 90-second main burner flame failure limit may apply if continuous pilots are provided on manufacturer-assembled boiler-burner units approved by an approved testing agency as complying with nationally recognized standards approved by the building official. Boiler Groups F and G equipped to reenergize their ignition system within 0.8 second after main burner flame failure shall be permitted 30 seconds for Group F or 15 seconds for Group G to reestablish its main burner flame.

4. Boiler Groups C and D shall have controls interlocked to accomplish a nonrecycling fuel shutoff upon high or low gas pressure, and boiler Groups F, G and H using steam or air for fuel atomization shall have controls interlocked to accomplish a nonrecycling fuel shutoff upon low atomizing steam or air pressure. Boiler Groups F, G and H equipped with a preheated oil system shall have controls interlocked to provide fuel shutoff upon low oil temperature.

5. Automatic boilers shall have controls interlocked to shut off the fuel supply in the event of draft failure if forced or induced draft fans are used or, in the event of low combustion airflow, if a gas power burner is used. Where a single motor directly driving both the fan and the oil pump is used, a separate control is not required.

6. Boiler Groups C, D and H, when firing in excess of 400,000 Btu per combustion chamber, shall be provided with low fire start of its main burner system to permit smooth light off. This shall
normally be a rate of approximately one-third of its maximum firing rate.

7. Boiler Groups C, D and H shall not permit pilot or main burner trial for ignition operation before a purging operation of sufficient duration to permit a minimum of four complete air changes through the furnace, including combustion chamber and the boiler passes. Where this is not readily determinable, five (5) complete air changes of the furnace, including combustion chamber up to the first pass, shall be considered equivalent. An atmospheric gas burner with no mechanical means of creating air movement or an oil burner which obtains two-thirds or more of the air required for combustion without mechanical means of creating air movement shall not require purge by means of four (4) air changes so long as its secondary air openings are not provided with means of closing. If such burners have means of closing secondary air openings, a time delay shall be provided which puts these closures in a normally open position for four (4) minutes before an attempt for ignition. An installation with a trapped combustion chamber shall in every case be provided with a mechanical means of creating air movement for purging.

8. Every automatic hot-water-heating boiler, low-pressure hot-water-heating boiler, and power hot-water boiler shall be equipped with two (2) high-temperature limit controls with a manual reset on the control with the higher setting interlocked to shut off the main fuel supply, except the manual reset on the high-temperature limit control shall not be required on any automatic package boiler not exceeding 400,000 Btu/h input and approved by an approved testing agency. Every automatic hot-water heating, power boiler and package hot-water supply boiler shall be equipped with one low-water-level limit control with a manual reset interlocked to shut off the fuel supply, installed to prevent damage to the boiler and to permit testing of the control without draining the heating system except on boilers used in Group R Occupancies of less than six (6) units. However, a low-water-flow limit control installed in the circulating water line may be used instead of the low-water-level limit control for the same purpose on coil-type boilers.

9. Every automatic low-pressure steam-heating boiler, small power boiler and power steam boiler shall be equipped with two high-steam pressure limit controls interlocked to shut off the fuel supply to the main burner with manual reset on the control with the higher setting, and two (2) low-water-level limit controls, one of which shall be provided with a manual reset device and independent of the feed water controller. Coil-type flash steam boilers may use two (2) high-temperature limit controls, one of which shall be manually reset in the hot-water coil section of the boiler instead of the low-water-level limit control.
10. Boiler Groups C, D and H shall use an approved automatic reset safety shutoff valve for the main burner fuel shutoff, which shall be interlocked to the programming control devices required. On oil burners where the safety shutoff valve shall be subjected to pressures in excess of ten (10) psi when the burner is not firing, a second safety shutoff valve shall be provided in series with the first. Boiler Groups C and D, using gas in excess of 1-pound-per-square-inch pressure or having a trapped combustion chamber or employing horizontal fire tubes, shall be equipped with two (2) approved safety shutoff valves, one of which shall be an automatic-reset type, one of which may be used as an operating control, and both of which shall be interlocked to the limit-control devices required. Boiler Groups C and D using gas in excess of 1-pound-per-square-inch pressure shall be provided with a permanent and ready means for making periodic tightness checks of the main fuel safety shutoff valves.

11. Control and limit device systems shall be grounded with operating voltage not to exceed 150 volts except, on approval by the building official, existing control equipment to be reused in an altered boiler control system may use 220-volt single phase with one side grounded, provided such voltage is used for all controls. Control and limit devices shall interrupt the ungrounded side of the circuit. A readily accessible means of manually disconnecting the control circuit shall be provided with controls so arranged that when they are de-energized the burner shall be inoperative.

23.20.1006.8 Electrical requirements. Delete section in its entirety.

23.20.1007 Boiler low-water cutoff. Delete section in its entirety.

23.20.1105.3 Refrigerant detector. Add a second sentence to read as follows:

Refrigerant detectors shall alarm audibly and visually both inside and outside the machinery room or refrigerated space.

23.20.1105.6.2 Make-up air. Amend last sentence by changing \( \frac{1}{4} \)-inch to \( \frac{1}{2} \)-inch.

23.20.1105 Machinery room, general requirements. Add a subsection 1105.10 as follows:

1105.10 Seismic protection. Refrigeration piping from adjacent equipment or machinery rooms that are not attached to the building shall be provided with seismic protection suitable for outdoor use and
approved for use by the Administrative Authority. Examples: flexible connectors approved for use in refrigeration systems, soft copper piping, swing joints.

23.20.1301.1 Scope.
Revise the first sentence of the section to read as follows:

The design, installation, construction, and repair of fuel oil storage and piping systems shall be in accordance with this chapter and NFPA 31.

CHAPTER 23.25 LOCAL AMENDMENTS TO THE UNIFORM PLUMBING CODE 2012 EDITION

Sections

23.25.102-103 Delete.
23.25.204.0 "B" definitions.
23.25.210 Definitions – health care facilities.
23.25.312.12.3 Rodent proofing.
23.25.314.0 Trenching, excavation, and backfill.
23.25.318.2 Pressure tests (10 psi or less).
23.25.320.0 Mezzanines and platforms.
23.25.403.3.1 Non-water urinals.
23.25.403.4 Metered faucets.
23.25.409.6 Access to whirlpool bathtub pump.
23.25.415.2 Where required.
23.25.418.3(4) Unvented garage floor drains.
23.25.422 Minimum number of required fixtures.
23.25.423.0 Minimum hot water supply temperature.
23.25.506.0 Air for combustion and ventilation.
23.25.507.0 Other water heater installation requirements.
23.25.507.2 Seismic strapping for small water heaters.
23.25.507.4.1 Water heaters located in mobile homes.
23.25.507.5 Relief valve discharge.
23.25.507.13 Installation in residential garages.
23.25.508.0 Appliances on roofs.
23.25.509.0 Venting of appliances.
23.25.510.0 Sizing of category I venting systems.
23.25.603.0 Cross connection control.
23.25.603.4 General requirements.
23.25.603.4.8 Area drain sizing for backflow assemblies.
23.25.603.5.6.4 Lawn irrigation.
23.25.603.5.8 Water cooled equipment.
23.25.603.5.10 Steam or hot water boilers.
23.25.603.5.22 Potable water supply to dental chairs.
23.25.603.5.23 Hydronic heating/cooling.
23.25.603.5.24 Steam systems.
23.25.603.5.25 Cooling towers.
23.25.603.5.26 Tall buildings over 30 feet in height.
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23.25.603.5.27 Commercial hose bibbs.</td>
</tr>
<tr>
<td>2</td>
<td>23.25.604.1 Materials - water pipe and fittings.</td>
</tr>
<tr>
<td>3</td>
<td>23.25.604.2 Materials - copper tube.</td>
</tr>
<tr>
<td>4</td>
<td>23.25.604.9 Materials - plastic pipe materials.</td>
</tr>
<tr>
<td>5</td>
<td>23.25.606.3 Shut off valves in multi-family dwelling units.</td>
</tr>
<tr>
<td>6</td>
<td>23.25.608.0 Water pressure, pressure regulators and pressure relief valves.</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>23.25.609.3 Under concrete slab.</td>
</tr>
<tr>
<td>9</td>
<td>23.25.609.3.(3) Water supply accessibility.</td>
</tr>
<tr>
<td>10</td>
<td>23.25.609.4 Testing.</td>
</tr>
<tr>
<td>11</td>
<td>23.25.609.10.1 Mechanical devices.</td>
</tr>
<tr>
<td>12</td>
<td>23.25.610.8 Size of meter and building supply pipe using Table 6-6.</td>
</tr>
<tr>
<td>13</td>
<td>23.25.613.0 Indoor water meter setter.</td>
</tr>
<tr>
<td>14</td>
<td>23.25.704.0 Fixture connections (drainage).</td>
</tr>
<tr>
<td>15</td>
<td>23.25.712.1 Media.</td>
</tr>
<tr>
<td>16</td>
<td>23.25.719.0 Cleanouts.</td>
</tr>
<tr>
<td>17</td>
<td>23.25.724.0 Building drain accessibility.</td>
</tr>
<tr>
<td>18</td>
<td>23.25.801.3 Bar and fountain sink traps.</td>
</tr>
<tr>
<td>19</td>
<td>23.25.815.0 Soda fountains, condensates, drip pans, ice machines, and other similar equipment.</td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>23.25.906.8 Roof penetrations.</td>
</tr>
<tr>
<td>22</td>
<td>23.25.908.2 Bathroom wet venting.</td>
</tr>
<tr>
<td>23</td>
<td>23.25. Table 1002.2 Horizontal lengths of trap arms.</td>
</tr>
<tr>
<td>24</td>
<td>23.25.1014.1 Grease interceptors.</td>
</tr>
<tr>
<td>25</td>
<td>23.25.1017.1 Interceptors required.</td>
</tr>
<tr>
<td>26</td>
<td>23.25.1101.1 Where required.</td>
</tr>
<tr>
<td>27</td>
<td>23.25.1101.3 Material uses.</td>
</tr>
<tr>
<td>28</td>
<td>23.25.1101.5 Subsoil drains.</td>
</tr>
<tr>
<td>29</td>
<td>23.25.1101.6 Building subdrains.</td>
</tr>
<tr>
<td>30</td>
<td>23.25.1101.9 Filling stations and motor vehicle washing establishments.</td>
</tr>
<tr>
<td>31</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>23.25.1101.11.1 Primary roof drainage.</td>
</tr>
<tr>
<td>33</td>
<td>23.25.1101.11.2.2(B) Combined system.</td>
</tr>
<tr>
<td>34</td>
<td>23.25.1108.0 Controlled-flow roof drainage.</td>
</tr>
<tr>
<td>35</td>
<td>23.23.1109.2 Methods of testing storm drainage systems.</td>
</tr>
<tr>
<td>36</td>
<td>23.25.1207.2 Temporary gas installations – permit required.</td>
</tr>
<tr>
<td>37</td>
<td>23.25.1207.3 Temporary gas installations – permit not required.</td>
</tr>
<tr>
<td>38</td>
<td>23.25.1208.5.8.1 Pipe joints.</td>
</tr>
<tr>
<td>39</td>
<td>23.25.1208.5.8.2 Tubing joints.</td>
</tr>
<tr>
<td>40</td>
<td>23.23.1208.5.8.4(2) Metallic piping joints and fittings.</td>
</tr>
<tr>
<td>41</td>
<td>23.25.1210.1.1 Cover requirements.</td>
</tr>
<tr>
<td>42</td>
<td>23.25.1210.1.5 Piping through foundation wall.</td>
</tr>
<tr>
<td>43</td>
<td>23.25.1210.1.8 Ground penetrations.</td>
</tr>
<tr>
<td>44</td>
<td>23.25.1210.1.9 Fuel gas piping connectors.</td>
</tr>
<tr>
<td>45</td>
<td>23.25.1210.1.10 Frost heave protection for copper tubing.</td>
</tr>
<tr>
<td>46</td>
<td>23.25.1210.4.1(3) Manufactured home connections.</td>
</tr>
<tr>
<td>47</td>
<td>23.25.1210.5.2 Medium pressure gas.</td>
</tr>
<tr>
<td>48</td>
<td>23.25.1210.18 Above-ground outdoor piping.</td>
</tr>
<tr>
<td>49</td>
<td>23.25.1213.3 Test pressure.</td>
</tr>
<tr>
<td>50</td>
<td>23.25.1301.1 Where required.</td>
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</tbody>
</table>
23.25.100 Local amendments to the Uniform Plumbing Code, 2012 Edition

Amendments to the 2012 Uniform Plumbing Code and appendices A, B, C, (excluding C8.0 and C9.0) D, parts E-M of Appendix E, and I, are adopted and listed hereafter by section. The digits after the title and chapter digits are the section number of the Uniform Plumbing Code to which the amendment refers, e.g., 23.25.510.8 refers to section 510.8 of the Uniform Plumbing Code.

23.25.102-103 Delete.
Delete sections 102 and 103; refer to the Anchorage Administrative Code.

23.25. 204.0 Definitions. – B –
Amend by adding the following definition:

\textbf{Bathroom.} Any room or space containing a bathtub, shower, hot tub, or swimming pool.

23.25.210.0 Definitions. – H –
Amend by adding the following definition:

\textbf{Health Care Facilities.} Buildings or portions or buildings in which medical, dental, psychiatric, nursing, obstetrical or surgical care is provided.

23.25.312.12.3 Rodent proofing.
Delete Section 312.12.3 in its entirety.

23.25.314.0 Trenching, excavation, and backfill.
Amend section 314.4 by adding, after the third sentence, the following:

Backfill material shall be 3/8" pea gravel or smaller. In the case of cast iron drain, waste and vent piping, the backfill material shall be 3/4" gravel and earth or smaller.

23.25.318.2 Pressure tests (10 psi or less).
Delete .10 psi and replace with .20 psi

23.25.320.0 Mezzanines and platforms.
Add new section as follows:

Every mezzanine or platform containing appliances or equipment requiring access more than ten feet, six inches above the ground or floor level shall be made accessible by a stairway or ladder fastened to the structure. The ladder shall be constructed with:
1. Rung spacing not to exceed fourteen (14) inches on center.
2. Toe spacing not less than six (6) inches deep.
3. At least 18” spacing between rails.
4. Rungs at least 0.75 inches in diameter capable of withstanding a 300 lb. load.
5. Offset sections and landings capable of withstanding 100 pounds per square foot when heights exceed 30 feet.

23.25.403.3.1 Non-water urinals.
Delete section in its entirety.

23.25.403.4 Metered faucets.
Add to the end of the first sentence of section 403.4:

...bus stations, cocktail lounges, bars, concert halls, sports arenas, theaters, shopping malls, churches, and grocery stores.

23.25.409.6 Access to whirlpool bathtub pump.
Add to section 409.6:

The access shall be required to be a minimum of 16"x16", although alternate access arrangements may be considered. The intent is the pump may be removed easily and safely. All pumps shall be located so the supporting or securing bolts are no more than two (2) feet from the access opening. The access panel may be siliconed in place and shall remain easily removable. If removal of a pump motor is in question, the contractor shall be required to remove the pump motor to demonstrate proper access.

23.25.415.2 Where required
Delete section 415.2 in its entirety

23.25.418.6 Unvented garage floor drains.
Amend section 418 “Floor Drains” by adding the following section:

23.25.418.6 Unvented garage floor drains.

23.25.418.6.1 General. A maximum of three (3) unvented floor drains may be installed in one- and two-family residential garages. Each shall have a three-inch (3”) (76mm) minimum trap and trap arm, and two-inch (2”) (50.8mm) floor drain. No other plumbing fixtures may be connected to the garage drain piping. When a contractor or homeowner installs this type of system, they shall install the waste lines as per the Uniform Plumbing Code regarding slopes and backfill material.

23.25.418.6.2 Inspections. Underground inspections of these floor drains are not required, but spot checks may be made by inspectors. If requested, MOA staff performs this inspection at no additional fee.
23.25.422 Minimum number of required fixtures.
Delete section 422.1 through 422.4.1 and refer to the Building Code.

23.25.423.0 Minimum hot water supply temperature.
Add new section as follows:

423.1 Minimum temperature.
The minimum hot water temperature to showers, tub and shower combinations, and tub fillers shall be 110°.

23.25.506.0 Air for combustion and ventilation
Delete section 506.0 in its entirety

23.25.507.0 Other water heater installation requirements.
Replace Section 507.4 with the following:

507.4 Water heaters shall be installed in a watertight pan of corrosion-resistant material. The pan shall be equipped with a minimum three quarter (3/4) inch (20mm) diameter drain discharging to an approved location. Water heater enclosures shall be provided with an approved floor drain.

Exceptions:

1. A floor drain is not required when a water heater is installed in a garage and the garage floor slopes to the exterior.

2. A floor drain is not required if a water heater is equipped with a listed safety device to control flooding.

3. A floor drain is not required when a water heater is installed in an attic or above a drop ceiling and the pan is drained to an approved location.

4. A pan is not required when a water heater is installed on a concrete slab on grade.

5. A pan is not required in a garage, where a corrosion-resistant material is placed under the water heater provided that it covers the entire platform and extends to all walls adjoining the platform and turning up the walls a minimum of two inches.

23.25.507.2 Seismic strapping for small water heaters.
Add an exception to UPC Section 507.2:

Exception: Tank type gas and electric water heaters that are a minimum of 5 gallons and a maximum of 10 gallons require only one approved seismic strap placed as close to the middle of the heater as possible, measured vertically, without blocking access to the controls.
23.25.507.4.1 Water heaters located in mobile homes.
Add new section as follows:

507.4.1 Water heaters located in mobile homes.
A. Installation of a water heater located in a compartment off the bedroom shall be acceptable if the water heater was factory installed, if the compartment is sealed from the bedroom by a panel screwed to the wall, and if the combustion air is taken from a source outside of the bedroom and complies with Uniform Plumbing Code.
B. A water heater replaced in an existing mobile home shall be replaced with a water heater tested, approved, and listed for use in mobile homes. The proper combustion air shall be installed to supply the new water heater per the mechanical code.

23.25.507.5 Relief valve discharge.
Replace Section 507.5 with the following:

When a water heater is installed in a garage, the water heater relief valve piping shall discharge to the floor over the edge of the platform.

23.25.507.13 Installation in residential garages.
Delete the words “unless listed as flammable vapor ignition resistant” from paragraph (1).

23.25.508.0 Appliances on roofs
Delete section 508.0 in its entirety.

23.25.509.0 Venting of appliances
Delete section 509.0 in its entirety.

23.25.510.0 Sizing of category I venting systems
Delete section 510.0 in its entirety.

23.25.603.0 Cross-connection control.
Amend by adding the following:

PURPOSE AND SCOPE: The purpose of this section is to protect the public health by controlling or eliminating actual or potential installation of cross-connections. The control or elimination of cross-connections shall be in accordance with this code, the current edition of the cross-connection control manual published by the Pacific Northwest section of The American Water Works Association and the manual of Cross-Connection Control published by the University of Southern California Foundation for Cross-Connection Control. In the event a conflict exists between the technical publications adopted herein and the Uniform Plumbing Code, the most stringent provision shall apply.
UNSAFE FACILITIES: The Municipality of Anchorage may refuse to furnish water and may discontinue services to any premises where plumbing facilities, appliances, or equipment using water are dangerous, unsafe, or not in conformity with the water utility tariff or other related municipal ordinances. No potable water service connection to any premises shall be installed or continued in use by a purveyor unless the potable water supply is protected by all necessary backflow prevention devices and assemblies. The installation or maintenance of a cross-connection, endangering the quality of the purveyor's water supply, shall be unlawful and is prohibited.

ADMINISTRATIVE AUTHORITY: The Building Official or authorized representative.

PURVEYOR: The operator or owner of a water supply.

PREMISES: Real property, including any house or building thereon, located within the Municipality of Anchorage.

CROSS-CONNECTION INSPECTIONS: No water shall be delivered to any structure hereafter built within the Municipality of Anchorage until it is inspected by the Administrative Authority for possible cross-connections and approved as being protected from such cross-connections.

Inspections shall be made periodically of all potentially hazardous buildings, structures, or improvements of any nature now receiving water through the municipal water system, for the purpose of ascertaining whether cross-connections exist. Such inspections shall be made by the Administrative Authority.

Any building modification requiring a plumbing or mechanical permit may require a cross-connection inspection and compliance.

POSSIBLE CROSS-CONNECTIONS: Backflow prevention assemblies or devices shall be installed in any premises where, in the judgment of the Administrative Authority, the nature and extent of activities, or the materials used or stored on the premises, may present a hazard to the potable water supply in the event a cross-connection were to be made; even though such cross-connection has not been made. Such circumstances include, but are not limited to:

1. Premises having an auxiliary water supply.
2. Premises having intricate plumbing arrangements making it impractical to ascertain whether or not cross-connections in fact exist.
3. Premises where entry is restricted so inspection for cross-connections cannot be made with sufficient frequency or on sufficiently short notice to assure cross-connections do not exist.
4. Premises having a repeated history of cross-connections being established or re-established.
5. Premises on which any substance is handled under pressure, so as to permit entry into the water supply. This shall include the handling of process waters and cooling waters.
6. Premises where materials of a toxic or hazardous nature are handled in such a way if back siphonage should occur, a health hazard might result.

The following facilities, or portions of a building containing one of the listed facilities, when connected to a potable water supply, require backflow prevention assemblies or devices unless the authority with jurisdiction determines no hazard exists. An example of a facility within a building is a dental office in a multi-story office building. For this application, a reduced pressure principle backflow preventer is required to be installed on the hot and cold water serving the dental office and backflow prevention is not required on the main supply to the building. This protects both the city main and the occupants in the building:

- Hospitals, mortuaries, and clinics;
- Laboratories;
- Metal plating industries;
- Piers and docks;
- Sewage treatment plants;
- Food or beverage processing plants;
- Chemical plants;
- Petroleum processing or storage plants;
- Radioactive material processing plants, nuclear reactors, or other facilities where radioactive materials may be utilized;
- Manufacturing facilities;
- Car wash facilities;
- Water systems not within the definition of potable water supply;
- Fire sprinkler systems;
- Medical/dental facilities;
- Waterfront facilities;
- Irrigation systems;
- Laundries and dry cleaners;
- High rise or other buildings above system pressure which require booster pumps; and
- Sand, gravel and concrete plants or other material processing plants.

### 23.25.603.4 General requirements.

Amend by adding a second paragraph to section 603.4.1 as follows:

Backflow assemblies and devices shall be approved if they successfully passed both the laboratory and field evaluation tests conducted by the University of Southern California Foundation for Cross-Connection Control.
23.25.603.4.8 Area drain sizing for backflow assemblies.
Delete Section 603.3.9 and replace with the following:

For new building construction, backflow devices or assemblies with drainage (reduced pressure principle assemblies) shall be provided with an area drain, as listed below.

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<thead>
<tr>
<th>Backflow Device Size</th>
<th>Area Drain Waste Line Minimum Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1” and less</td>
<td>2”</td>
</tr>
<tr>
<td>1¼” – 2”</td>
<td>3”</td>
</tr>
<tr>
<td>2 ½” – 3”</td>
<td>4”</td>
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<tr>
<td>4” and greater</td>
<td>6”</td>
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</tbody>
</table>

Exception: Area drain size is not required to be larger than building sewer service line

23.25.603.5.6.4 Lawn irrigation.
Add new paragraphs as follows:

The Uniform Plumbing Code regulates the installation of these types of plumbing systems up to and including the required type(s) of backflow preventer. A permit, plan check, and inspection is required to ensure the potable water piping is sized correctly for the number of fixture units effected by such a system and required piping material and backflow preventer(s) are installed. The installation down stream of the required backflow preventer is not regulated by the plumbing code and is considered non-potable water piping.

Installation of backflow preventers and/or vacuum breakers on public systems shall be done by a plumbing contractor properly licensed with the Municipality of Anchorage. Private installations require either a plumbing contractor or a legal owner complying with all the requirements in the Anchorage Administrative Code.

23.25.603.5.8 Water cooled equipment
Amend section by adding a second paragraph to read as follows:

Installation, operation or use of air conditioning or cooling units employing water or other fluid as a cooling agent without a recovery and recirculation unit is prohibited.

23.25.603.5.10 Steam or hot water boilers
Amend section 603.5.10 as follows:

603.5.10 Steam or hot water boilers. Potable water connections to hot water boilers shall be protected from backflow by a minimum double check valve with intermediate vent backflow prevention assembly complying with ASSE 1012. Potable water connections to steam boilers shall be protected from backflow by a minimum reduced pressure principle backflow prevention assembly in accordance with
Table 603.2. Where chemicals are introduced into the system a reduced pressure principle backflow prevention assembly shall be provided in accordance with Table 603.2.

23.25.603.5.22 Potable water supply to dental chairs.
Amend section 603.5 by adding a new section as follows:

603.5.22 Potable water supply to dental chairs. Potable water supply to each individual dental chair shall be protected by a backflow preventer as approved by the administrative authority.

23.25.603.5.23 Hydronic heating/cooling.
Amend section 603.5 by adding a new section as follows:

603.5.23 Hydronic heating/cooling. Systems with heat transfer fluids containing plain water or water/propylene glycol mixture require a minimum double check valve with intermediate atmospheric vent backflow preventer to be installed on any directly connected potable water makeup piping to the system. (A suitable example of this backflow preventer is a Watts 9D or a Hersey BCP valve.) In addition, the below listed requirements shall be complied with when a system contains propylene glycol:

1. Water/propylene mixture shall contain a food grade powder dye. (A suitable example is FD+C Powder Dye.) Liquid food coloring is not acceptable due to its potential dissipation into the system.

2. A warning tag shall be installed on the backflow preventer stating the following information:
   A. System contains propylene glycol - use no other substitute.
   B. Do not add ethylene glycol or automotive anti-freeze of any type.
   C. No high hazard toxic chemicals permitted to be added to this system.

Systems with a heat transfer fluid containing Ethylene Glycol approved for such use require minimum protection of the potable water makeup system by installation of a physical air gap or a reduced pressure principal backflow preventer.

23.25.603.5.24 Steam systems.
Amend section 603.5 by adding a new section 603.5.24 as follows:

603.5.24 Steam systems. Due to potential addition of toxic chemicals in any steam system, the minimum protection for the potable water makeup shall be by installation of a physical air gap or a reduced pressure principal backflow preventer.
23.25.603.25  Cooling towers.
Amend section 603.5 by adding a new section 603.5.25 as follows:

603.5.25  Cooling towers. Cooling towers obtaining makeup water from a potable source shall have a reduced pressure principal backflow preventer or air gap separation installed at the source of the potable water.

23.25.603.26  Tall buildings over 30 feet in height.
Amend section 603.5 by adding a new section 603.5.26 as follows:

603.5.26  Tall buildings over 30 feet in height. Buildings with water piping exceeding 30 feet in height measured from grade plane as defined by the Building Code to the highest portion of the piping system shall be equipped with a Double Check Valve Assembly on the main water supply to the building.

23.25.603.27  Commercial hose bibbs.
Amend section 603.5 by adding a new section 603.5.27 as follows:

603.5.27  Commercial hose bibbs. Hose bibbs within facilities that have a potential for a high hazard cross-connection such as automotive and maintenance shops and any facility where chemicals are used or stored in the vicinity of the hose bibb shall be protected by a minimum pressure vacuum breaker or spill-resistant vacuum breaker.

23.25.604.1  Materials - water pipe and fittings.
Add a sentence and an exception to the end of 604.1 to read as follows:

Asbestos-Cement, PE, PVC, PEX-AL-PEX, PE-AL-PE and HDPE shall not be used for cold water building supply distribution systems outside a building.

Exception: PVC or HDPE water service pipe 4 inch in diameter and greater may extend from the utility main horizontally into the footprint of the building. The piping shall transition underground to an approved metallic pipe at a 90 degree fitting. The PVC and HDPE pipe and fittings shall comply with the latest version of the Anchorage Water and Wastewater Utility (AWWU) Design Construction Practice Manual (DCPM).

23.25.604.2  Materials - copper tube.
Amend to delete the words "or underground outside of structures" in the Exception.

23.25.604.9  Materials - plastic pipe materials.
Amend by deleting paragraph 604.9 and the exception and substitute the following:
Plastic piping materials shall not be used for water service piping from the street service main, private well, or other water source to a building or premises.

Exception: PVC or HDPE water service pipe 4 inch in diameter and greater may extend from the utility main horizontally into the footprint of the building. The piping shall transition underground to an approved metallic pipe at a 90 degree fitting. The PVC and HDPE pipe and fittings shall comply with the latest version of the Anchorage Water and Wastewater Utility (AWWU) Design Construction Practice Manual (DCPM).

23.25.606.3 Shut off valves in multi-family dwelling units.
Replace section 606.3 with the following:

In multi-dwelling units, one (1) or more shutoff valves shall be provided in each dwelling unit so as the water supply to the entire dwelling unit can be shut off without stopping water supply to other units. These valves shall be accessible in the dwelling units that they control. Shutoff valves shall be visible and shall not exceed ten (10) feet from a crawl space access when the shutoff valves are located in a crawl space.

23.25.608.0 Water pressure, pressure regulators and pressure relief valves.
Amend by deleting paragraph 608.5 and substitute the following:

608.5 Relief valves shall be provided with a drain, not smaller than the relief valve outlet of galvanized steel or hard drawn copper pipe and fittings, CPVC or listed relief valve drain tube with fittings which shall not reduce the internal bore of the pipe tubing (straight lengths as opposed to coils), and shall extend from the valve to a floor drain or other approved location inside the building. The drain pipe shall terminate not more than two (2) feet (610 MM) nor less than six (6) inches (152 MM) above the floor drain or other approved location and point downward. No part of such drain pipe shall be trapped, and the terminal end shall not be threaded. Each relief valve drain shall be piped independently of other relief valve drains.

23.25.609.3 Under concrete slab
Add exception to 609.3(2)

Exception: Brazing shall not be required on non-pressurized, non-potable piping such as trap primers. Where joints are permitted, they shall be of the approved type.

23.25.609.4 Testing.
Amend by deleting the words “Except for plastic piping” before “a fifty (50) pound test, to read as follows:
Upon completion of a section or of the entire hot and cold water supply system, it shall be tested and proved tight under a water pressure not less than the working pressure under which it is to be used. The water used for tests shall be obtained from a potable source of supply. A fifty (50) pound per square inch (344.5 kPa) air pressure may be substituted for the water test. In either method of test, the piping shall withstand the test without leaking for a period of not less than fifteen (15) minutes.

23.25.609.10.1 Mechanical devices
Add sentences to the end of Section 609.10.1 to read as follows:

Properly sized expansion tanks approved for potable water may be used in a single-family and duplex residence in lieu of water hammer arresters. Such expansion tanks must be installed on the cold water piping between the shutoff valve and each water heater maker location. In the event the expansion tanks do not eliminate the water hammer, mechanical water hammer devices will be required. Examples of quick-acting valve locations include, but are not limited to, a dishwasher, clothes washer, toilet ballcock, icemaker, and any single handle faucet.

23.25.609.11 Water supply accessibility.
Amend section 609 by adding the following section:

23.25.609.11 Water supply accessibility. Where the building water supply pipe enters the building within a crawlspace, it shall exit the ground or slab in an area with a minimum of forty inches (40") clear space between ground or slab and bottom of structure, and provide an unobstructed passageway no less than forty (40) inches high and twenty-two (22) inches wide from the water supply entrance to the crawlspace access.

23.25.610.8 Size of meter and building supply pipe using Table 6-6.
Amend by deleting the last sentence of section 610.8 and substitute the following:

No new street service or building supply pipe shall be less than one (1) inch (25.4 mm) in diameter.

23.25.613.0 Indoor water meter setter.
Amend Chapter 6 by adding section 613 as follows:

613.0 Indoor water meter setter.

613.1 All newly constructed single family, duplex and triplex residences shall install an approved indoor water meter setter with meter idler or a removable section of pipe to facilitate the future installation of water meters in a horizontal position. It shall be located in the vicinity of the
main supply full-way valve, ahead of any branch lines and shall also be valved on the outlet side. An easily accessible frost-proof area with adequate clearances shall be provided for meter installation, maintenance or removal. "Easily accessible" shall be considered an open area not concealed by an appliance, furnace, water heater or standard building material. When the meter is installed in under floor or crawl spaces, the maximum distance from the access opening to the meter shall not exceed ten (10) feet (3048 mm).

613.2 A horizontal section of pipe may be used in lieu of the indoor meter setter provided the pipe is equal in length to a water meter of the same size including meter couplings, but in no case shall it be less than twenty-four inches (24"), (610 mm) in length. The piping shall be supported to provide a permanent support for the water meter when installed.

613.3 When the water tariff is revised to allow the metering of these residences, the utility shall furnish two meters and remote feed-outs at its expense and its crews shall install remote read-out meters at the time of actual meter installation.

23.25.704.3 Commercial Dishwashing Machines and Sinks.
Amend the second sentence in paragraph 704.3 to read as follows:

“A floor drain or flush mounted floor sink shall be provided within 5 feet of the fixture, and the fixture…”

23.25.712.1 Media
Delete the first sentence of 712.1 and replace with the following:

The piping of the plumbing, drainage, and venting systems shall be tested with water or air. The air test shall be a minimum 5psi and shall be performed with gauges of .20 incrementation or less.

23.25.719.0 Cleanouts.
Delete first paragraph of 719.1 and substitute the following:

Cleanouts shall be placed at the end of building drains, two (2) feet (610 mm) outside building and shall be of same material as the building drain.

23.25.724.0 Building drain accessibility.
Add new Local Amendment 23.25.724.0 – Building drain accessibility.

Where the building drain pipe enters in a crawl space, it shall exit the ground or slab in an area with a minimum of forty (40) inches clear space
between the ground or slab and bottom of structure, and provide an unobstructed passageway no less than forty (40) inches high and twenty-two (22) inches wide from where the building drain exits the ground and the crawlspace access.

23.25.801.3 Bar and fountain sink traps.
Amend paragraph 801.3 by deleting the words “5 feet” from the last sentence and substituting the words “fifteen (15) feet.”

23.25.815.0 Soda fountains, condensates, drip pans, ice machines, and other similar equipment.
Add new section as follows:

815.0 Soda fountains, condensates, drip pans, ice machines, and other similar equipment.

A. If the drain outlet for this type of equipment is below or remotely located from an approved point of disposal, the equipment may drain by gravity to a single pump, lift station receiver based on the following:

1. A "Little Giant" condensate unit or equal is acceptable for lift station receiver. The pump shall be appropriately sized for the required condition.
2. The equipment drain outlet or tailpiece may not exceed 1" I.D.
3. The discharge pipe and fittings from the lift station receiver shall be a material approved for drainage piping and shall be piped to an approved indirect waste receptor per Uniform Plumbing Code section 701.

B. Vending company employees may install the drainage piping from the equipment they install to an approved point of disposal, provided the equipment drain pipe from the outlet of the tailpiece to a lift station receiver or approved point of disposal does not exceed five (5) feet measured along the centerline of the pipe and such piping is installed in accordance with the Uniform Plumbing Code requirements.

C. If the equipment installed requires a water supply, it shall be provided by a properly licensed plumber to within ten (10) feet of the equipment, complete with any required backflow prevention device. The vendor employee may make the water connection from that point to the equipment.

23.25.906.8 Roof penetrations.
Amend section 906 by adding a new section 906.8 as follows:

906.8 Roof penetrations. For roof construction regulated by the International Residential Code:
1. No roof penetration shall be located in required valley ice barrier.
2. All roof penetrations shall be located a minimum of six feet from valley centerline and four feet from the exterior wall line measured on a horizontal plane, excluding attic ventilation.

**23.25.908.2 Bathroom wet venting.**
Delete subsection 908.2 in its entirety.

**23.25. Table 1002.2 Horizontal lengths of trap arms.**
Add ** after “Horizontal Lengths of Trap Arms” and add below Table 1002.2 the following note:

** Trap arms for residential floor drains may be extended beyond the limits of Table 1002.2 to where they pass under the nearest wall before installing the required vent.

**23.25.1014.1 Grease interceptors.**
Amend by adding the following words to the first sentence after the words “leading from sinks”:

“such as pot sinks (two- and three-compartment), scullery sinks, dishwashing sinks, silverware sinks”.

**23.25.1017.1 Interceptors required.**
Amend by deleting reference to “550 gallons” and replacing with “100 gallons”.

**23.25.1101.1 Where required.**
Delete from the first sentence the words “or into a combined sewer system where a separate storm sewer system is not available.”

Delete from the second sentence the words “In the case of one- and two-family dwellings,” and “such as streets or lawns”.

**23.25.1101.3 Material uses.**
Amend by deleting reference to “Chapter 15 Firestop Protection” and replacing with “the Building Code”.

**23.25.1101.5 Subsoil drains.**
Amend section 1101.5.1 by adding the following to the beginning of the section:

When required by the authority having jurisdiction...

**23.25.1101.6 Building subdrains.**
Amend section 1101.6 by deleting the word “public” and inserting the word “storm”. 
23.25.1101.9  Filling stations and motor vehicle washing establishments.
Amend section 1101.9 by adding to the beginning of the paragraph:

When required by the authority having jurisdiction...

23.25.1101.11.1  Primary roof drainage.
Delete the first sentence and replace with the following:

Roof areas of a building shall be drained by roof drains, gutters, scuppers, or sheet flow off the edge of the roof.

23.25.1101.11.2.2(B)  Combined system.
Delete 1101.11.2.2(B) and replace with the following:

The secondary roof drains may connect to the horizontal portion of the primary drain a minimum of 3 feet downstream from the primary drain. Additionally, an approved flexible connector shall be installed on each roof drain per the manufacturer’s installation instructions or a swing joint configuration may be used (see detail “A” of MOA Handout P.02). When this combined system is used, an overflow line must be installed in the drain line and run to the exterior of the building above grade to an appropriately designed overflow drain or scupper system to allow sheet flow from the drain line to surface in case of below grade freeze-up of main drain line or storm main. The primary storm drainage system shall connect to an underground public storm sewer or discharge to an approved location.

23.25.1108.0  Controlled-flow roof drainage.
Delete sections 1108.0 in its entirety.

23.25.1109.2  Methods of testing storm drainage systems.
Delete the words "except that plastic pipe shall not be tested with air" from the first sentence.

23.25.1207.2  Temporary gas installations – permit required.
Amend section 1207 by adding a new section 1207.2 as follows:

1207.2  Temporary gas installations – permit required.

A.  Temporary gas approval is given to allow "comfort heating" appliances to be used to provide temporary heat to a building or building site prior to the completion of the building's primary heating system.

B.  The most commonly used appliance is a natural gas portable space heater. Other comfort heat appliances allowed for temporary heat purposes are warm air furnaces, boilers, and unit heaters. It is NOT the policy of the Building Safety Division or Enstar Natural Gas Company to allow "decorator fireplaces" or
"ranges" to be utilized as temporary heat for buildings. These appliances are not designed or "listed" for such purpose.

C. All appliances used to provide temporary heat for buildings shall be installed in accordance with the manufacturers' instructions and terms of their listing, with particular attention being paid to the clearances to combustibles from the top, bottom, back, and sides of these appliances.

D. Unit heaters used for temporary heat shall be installed per manufacturers' instructions and listed clearances to combustibles from the top, bottom, front, back, and sides of these appliances. The vent connector shall be graded at one-quarter inch (1/4") per foot slope upward to the outside and it shall be changed to "B" vent at the wall penetration. The "B" vent must maintain its listed clearance to combustibles, extend a minimum of five (5) feet vertically, and be secured.

E. Furnaces used for temporary heat shall comply with the same requirements as for unit heaters as stated above. In addition, the return air for the furnace shall be ducted a minimum of ten (10) feet from the furnace.

F. Portable space heaters shall be provided with one hundred percent (100%) outside air to the back end of the heater. In most cases, the gas regulator attached to these heaters shall be piped to the outside. If the regulator vent discharges, it shall not be allowed to discharge into the space being heated.

G. Gas hose used for temporary heaters shall be a type approved by the Building Safety Division and all manufacturers' listed clearances shall be maintained. The hose shall have an internal wire mesh or braid and be "kink proof". Supporting wire shall run the full length of the hose. Each time a hose is moved from one lot to another, it shall be retested with sixty (60) psi air pressure.

23.25.1207.3 Temporary gas installations – permit not required.
Amend section 1207 by adding a new section 1207.3 as follows:

1207.3 Temporary gas installations – permit not required. A permit and inspection shall not be required for residential temporary construction heat serving tented footings and foundations. This provision is for thawing ground and curing concrete, not comfort heat for workers, such as plumbers installing underground. This allowance is limited to portable "SURE FLAME" type heaters and not intended for unit heaters, furnaces, and boilers with special venting considerations. All heaters and hoses shall be of the approved type. Heaters shall be listed by an approved listing agency. All hoses shall have an internal wire mesh or braid, and be "kink proof". Supporting wire shall run the full length of the hose. One hundred percent (100%) outside air shall be provided to heater at all times. Listed clearances to combustibles shall be maintained. A licensed journeyman plumber or gasfitter shall perform all work.
23.25.1208.5.8.1 Pipe joints.
Amend by adding the following at the end of the paragraph:

All joints in underground ferrous piping shall be welded when any of the following conditions apply:

1. The nominal pipe diameter is 2 ½ inches or larger.
2. The pipe is installed under a driveway.
3. Medium pressure systems.

23.25.1208.5.8.2 Tubing joints.
Amend by adding the following sentences at the end of the paragraph:

All joints in underground copper shall be brazed with wrought copper fittings. No underground joints shall be permitted unless the underground length of run exceeds sixty (60) feet. All pipe to tubing transitions shall be made above ground.

23.23.1208.5.8.4(2) Metallic piping joints and fittings.
Amend Item 2 by deleting the words "cast iron".

Delete Item 5.

Add a new Item 9 as follows:

9. Right and left nipple couplings. Where unions are necessary, right and left nipples and couplings shall be used. Ground joint unions may be used at exposed fixture, appliance, or equipment connections and in exposed exterior locations immediately on the discharge side of a building shutoff valve.

23.25.1210.1.1 Cover requirements.
Amend by adding the following sentence to the end of the paragraph:

Plastic and copper gas piping shall have at least eighteen inches (18") of earth cover or other equivalent protection.

23.25.1210.1.5 Piping through foundation wall.
Delete paragraph in its entirety and replace with the following:

Building fuel gas piping entrances and exits shall be located above grade or in an approved vented vault.

23.25.1210.1.8 Ground penetrations.
Add a new section as follows:

1210.1.8 Ground penetrations. At all points where fuel gas piping enters or leaves the ground, there shall be installed, above ground, an approved or listed fuel gas piping connector, capable of absorbing a six-inch (6") displacement, in any direction, due to frost heave action.
23.25.1210.1.9 Fuel gas piping connectors.
Add a new section as follows:

1210.1.9 Fuel gas piping connections. Fuel gas piping connectors listed for outdoor use may be used between the meter and house main. No flex connector may pass through any wall, partition, panel, or other barrier. Solid fittings shall be used on each end.

23.25.1210.1.10 Frost heave protection for copper tubing.
Add a new section as follows:

1210.1.10 Frost heave protection for copper tubing. At points where copper tubing type systems enter or leave the ground, they shall be protected from frost heave action by the incorporation of a suitable above ground six-inch radius loop, or listed fuel gas piping connector of equal size.

23.25.1210.4.1(3) Manufactured home connections.
Add the following item to the section:

(3). Pounds to inches water column regulators serving mobile homes and connected to copper tubing shall be attached to the exterior of the mobile home, and shall not be located under the mobile home.

23.25.1210.5.2 Medium pressure gas.
Add a new section as follows:

1210.5.2.1 Medium pressure gas. The installation of a medium pressure gas system (2 psig or 5 psig) within a building must be pre-approved by the local gas utility. Steel piping shall be welded. Test pressure for all medium pressure gas piping shall be 60 psig.

Exception:
Medium pressure gas piping within mechanical room spaces that house the equipment being served shall be threaded or welded in accordance with 1208.5.8. Threaded piping shall not be concealed within the space.

1210.5.2.2 CSST medium pressure gas. The installation of a CSST medium pressure gas system (2 psig or 5 psig) within a building must be preapproved by the local gas utility. Test pressure for all medium pressure gas piping shall be 60 psig. Joints shall be limited to the meter connection and at the regulator to the appliance being served. Intermediate joints are not allowed without prior approval.

23.25.1210.18 Above-ground outdoor piping.
Amend section 1210 by adding a new section 1210.18 as follows:
1210.18 Above-ground outdoor piping. All piping installed outdoors shall be elevated not less than 3 ½ inches above ground and where installed across roof surfaces, shall be elevated not less than 3 ½ inches above the roof surface. Piping installed above ground, outdoors, and installed across the surface of roofs shall be securely supported and located where it will be protected from physical damage. Where passing through an outside wall, the piping shall also be protected against corrosion by coating or wrapping with an inert material. Where piping is encased in a protective pipe sleeve, the annular space between the piping and the sleeve shall be sealed.

23.25.1213.3 Test pressure.
Amend section as follows:

Replace the reference to "1 ½" with "ten (10)".

Replace the minimum test pressure of three (3) psig with ten (10) psig and add the following sentences at the end of the paragraph:

Required pressure tests of ten (10) psig shall be performed with gauges of 1/10 psi increments or less.
Welded pipe shall be tested with not less than sixty (60) psig test pressures.

23.25.1301.1 Where required.
Amend by adding to the end of the first sentence the words “or in accordance with the latest version of FGI Guidelines for Design and Construction of Hospital and Health Care Facilities.”

23.25.1309.1.1 Veterinary clinics.
Amend by adding new section:

23.25.1309.1.1 Veterinary clinics. The material requirements, installation, and testing practices of NFPA 99 for Level 3 gas and vacuum systems shall apply to veterinary clinics except third party verification is not required.

23.25.1309.8 Vacuum systems for dental offices.
Amend Part II – Medical Gas and Vacuum Systems by adding a new section 1309.8 as follows:

1309.8 Vacuum systems for dental offices. The purpose of this amendment is to point out and clarify the requirements for wet vacuum systems in dental offices. Refer to NFPA 99C (most current edition) [NFPA 99 5.3.10] for full text of these requirements.

A. Level 3 wet vacuum systems (in dental offices) may be installed using schedule 40 PVC with pressure fittings [NFPA 99 5.3.10.2 and 5.3.10.3]. Piping and fittings installed in plenums shall have a
flame spread index of not more than 25 and a smoke developed rating of not more than 50.

B. The wet vacuum system (in dental offices) is considered a Level 3 system if:

1. The system is entirely separate from other Level 1 systems.
2. The occupancy to be served and the function of the occupancy is distinct from other occupancies in the building.
3. The patient population, during or subsequent to treatment, are not dependent for life on the vacuum system, and the treatment the facility performs may be completed without detrimental effect on patient outcomes in the event of sudden loss of vacuum systems [NFPA 99 Chapter 18].

C. The wet vacuum system (in dental offices) shall be verified by a third party technically competent and experienced in the field of Level 3 vacuum systems and testing, and meeting the requirements of ANSI/ASSE Standard 6030 [NFPA 5.3.12.3].

CHAPTER 23.30  LOCAL AMENDMENTS TO THE NATIONAL ELECTRICAL CODE 2014 EDITION

Sections
23.30.20  Certificate of fitness—right to inspection.
23.30.210.23(E)  Permissible loads, multiple-outlet branch circuits (outlets per circuit).
23.30.210.52(K)  Dwelling unit receptacle outlets (under-floor crawl spaces).
23.30.230.1  Scope.
23.30.230.32  Protection against damage.
23.30.230.70(A)(1)  Readily accessible location.
23.30.250.53(D)(2)  Metal underground water pipe, supplemental electrode required.
23.30.250.68(C)  Grounding electrode connections.
23.30.250.118  Types of equipment grounding conductors.
23.30.250.122(B)  Increase in size.
23.30.300.4(I)  Protection against physical damage (roofs).
23.30.300.5  Underground installations (separation from other systems).
23.30.300.24  Cold temperature installations.
23.30.310.15(B)  Ampacities for conductors rated 0-2000 volts (tables).
<table>
<thead>
<tr>
<th>Article</th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.30.330.40</td>
<td>Boxes and fittings.</td>
<td></td>
</tr>
<tr>
<td>23.30.334.10</td>
<td>Uses permitted.</td>
<td></td>
</tr>
<tr>
<td>23.30.334.104</td>
<td>Conductors.</td>
<td></td>
</tr>
<tr>
<td>23.30.410.17</td>
<td>Other closet or storage spaces.</td>
<td></td>
</tr>
<tr>
<td>23.30.445.18</td>
<td>Disconnecting means required for generators.</td>
<td></td>
</tr>
<tr>
<td>23.30.510</td>
<td>Hazardous (classified) locations.</td>
<td></td>
</tr>
<tr>
<td>23.30.511.3(C)(1)</td>
<td>Major repair garages; floor areas.</td>
<td></td>
</tr>
<tr>
<td>23.30.511.3(C)(2)</td>
<td>Major repair garages, ceiling areas.</td>
<td></td>
</tr>
<tr>
<td>23.30.511.3(D)(1)</td>
<td>Minor repair garages; floor areas.</td>
<td></td>
</tr>
<tr>
<td>23.30.511.3(E)(1)</td>
<td>Specific areas adjacent to classified locations.</td>
<td></td>
</tr>
<tr>
<td>23.30.513.3(D)</td>
<td>Areas suitably cut off and ventilated.</td>
<td></td>
</tr>
<tr>
<td>23.30.620.71(A)</td>
<td>Motor controllers.</td>
<td></td>
</tr>
<tr>
<td>23.30.700.19</td>
<td>Multiwire branch circuits.</td>
<td></td>
</tr>
<tr>
<td>23.30.702.5</td>
<td>Transfer equipment.</td>
<td></td>
</tr>
</tbody>
</table>

**23.30.10 Local amendments to the National Electrical Code 2014 Edition.**

The amendments to the 2014 edition of the National Electrical Code are listed here by section. The last digits of the number after the title and chapter digits are the article, section and subsection of the National Electrical Code to which the amendment refers, i.e., 23.30.210.23(E) refers to article 210, section 210.23 and subsection (E) of the National Electrical Code, 2014 Edition.

**Informational Note:** For further information on other Building Codes, Policies and Handouts that may affect electrical installation requirements go to the Municipality of Anchorage, Building Safety Website at: www.muni.org/departments/ocpd/development/bsd

**23.30.20 Certificate of fitness—right to inspection.**

Municipal electrical inspectors may contact any electrical worker performing work for which a certificate of fitness is required by Alaska Statue 18.62.070 and request the person to exhibit their certificate of fitness or trainee certificate of fitness. The inspector may immediately serve upon that person a notice to cease any further work in that occupation until the person has demonstrated possession of the required certificate.

- **23.30.210.12(A) Arc-fault circuit-interrupter protection (dwelling units).**
  Delete items (3) and (4).

- **23.30.210.23(E) Permissible loads, multiple-outlet branch circuits (outlets per circuit).**
  Add subsection (E) as follows:

  **(E) Outlets per circuit.** In dwelling units, no more than thirteen (13) outlets are allowed on one branch circuit. All smoke detectors on a circuit may be counted as a total of one outlet. Appliance circuits are limited to six (6) duplex receptacles per circuit.
Exception: Fixed lighting circuits designed to meet the appropriate sections of the code.

Add subsection (J) as follows:

(J) Parking spaces. For each dwelling unit and mobile home, there shall be at least one (1) exterior GFCI protected duplex outlet on a separate 20-ampere circuit adjacent to required on-site parking locations.

Exception: For multi-family dwellings, eight-plex and larger where indoor parking is provided, the required number of exterior duplex receptacles may be reduced by the number of indoor heated parking locations.

23.30.210.52(K) Dwelling unit receptacle outlets (under-floor crawl spaces).
Add subsection (K) as follows:

(K) Under-floor crawl spaces. A receptacle shall be provided in each unconnected space; the receptacle shall be located adjacent to a sump when one is provided. This receptacle shall be a GFCI protected duplex outlet.

23.30.230.1 Scope.
Add the following sentence:

The service installation shall also conform to the written electric service requirements of the utility serving the area.

23.30.230.32 Protection against damage.
Add the following paragraph:

Physical protection of underground service laterals for residential services of 200 amperes and less shall consist of not more than nine feet of liquid tight flexible metal conduit.

23.30.230.70(A)(1) Readily accessible location.
Add the following paragraph:

The service disconnecting means shall be operable from the exterior of the building if the service disconnect is within the building. A fire pump service disconnect is not required to be operable from the exterior of the building.

Replace subsection (3) with:
(3) **Remote Control.** Where a remote control device(s) is used to actuate the service disconnecting means, the service disconnecting means shall be located in accordance with section 230.70(A)(1). The control device shall meet the requirements of the electrical utility.

**23.30.250.53(D)(2) Metal underground water pipe, supplemental electrode required.**
Delete the exception.

**23.30.250.68(C) Grounding electrode connections.**
Delete the exception under location (1).

**23.30.250.118 Types of equipment grounding conductors.**
Delete items (2) through (14) and replace with:

1. The copper sheath of mineral insulated, metal-sheathed cable Type MI.
2. Metal enclosures of busways listed for grounding.
3. Armor of Type AC cable as provided in 320.108.
4. Type MC cable that provides an effective ground-fault current path in accordance with one or more of the following:
   a. It contains an insulated or uninsulated equipment grounding conductor in compliance with 250.118(1).
   b. The combined metallic sheath and uninsulated equipment grounding/bonding conductor of inter-locked metal tape-type MC cable that is listed and identified as an equipment grounding conductor.
   c. The metallic sheath or the combined metallic sheath and equipment grounding conductors of the smooth or corrugated tube-type MC cable that is listed and identified as an equipment grounding conductor.
5. Cable trays as permitted in 392.10 and 392.60.

**23.30.250.122(B) Increase in size.**
Add the following to the end of the paragraph:

Increase in size shall not be required for circuits less than 100 feet in length. Circuits 100 amps or less may use the 60 degree C column for determining smallest conductor size with sufficient ampacity in accordance with section 110.14. Rounding up shall not be considered as the smallest conductor size with sufficient ampacity.

**23.30.300.4(I) Protection against physical damage (roofs).**
Add subsection (I) as follows:

(I) **Roofs.** Raceways run on the surface of a roof or subject to damage from snow, ice, or foot traffic, shall be rigid metal or intermediate metal conduit only.
23.30.300.5 Underground installations (separation from other systems).
Add subsection (L) as follows:

(L) Separation from other systems. When direct buried cables or conductors cross or are installed parallel to sewers, water lines, gas or other fuel lines, steam lines, communication and utility electric cables or conductors, a minimum 12 inch radial separation shall be maintained.

23.30.300.24 Cold temperature installations.
Add section 300.24 as follows:

300.24 Cold Temperature installations: Thermoplastic type insulated wires or cables, or non-metallic tubing shall not be installed when ambient temperatures are less than 20 degrees F.

23.30.310.15(B) Ampacities for conductors rated 0-2000 volts (tables).
Replace (7) with the following:

(7) 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders. For individual dwelling units of one family, two-family, and multifamily dwellings, conductors, as listed in Table 23.30.310.15(B)(7), shall be permitted as 120/240-volt, 3-wire, single-phase service-entrance conductors, service-lateral conductors, and feeder conductors that serve as the main power feeder to each dwelling unit and are installed in raceway or cable with or without an equipment grounding conductor. For application of this section, the main power feeder shall be the feeder between the main disconnect and the panelboard that supplies, either by branch circuits or by feeders, or both, all loads that are part or associated with the dwelling unit. The feeder conductors to a dwelling unit shall not be required to have an allowable ampacity rating greater than their service-entrance conductors. The grounded conductor shall be permitted to be smaller than the ungrounded conductors, provided the requirements of 215.2, 220.61, and 230.42 are met.

Table 23.30.310.15(B)(7) Conductor Types and Sizes for 120/240-Volt, 3-Wire, Single-Phase Dwelling Services and Feeders. Conductor Types RHH, RHW, RHW-2, THHN, THHW, THW, THW-2, THWN, THWN-2, XHHW, XHHW-2, SE, USE, USE-2

<table>
<thead>
<tr>
<th>Service or Feeder Rating (Amperes)</th>
<th>Conductor (AWG or kcmil)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Copper</td>
</tr>
<tr>
<td>100</td>
<td>4</td>
</tr>
</tbody>
</table>
Accompanying the end of the paragraph:
An insulated bushing or its equivalent protection shall be provided between the conductors and the outer metal sheath and must be visible for inspection.

23.30.334.10 Uses permitted.
Delete item (3).

23.30.334.104 Conductors.
Replace section 334.104 with:

334.104. Conductors. The insulated power conductors shall be sizes 14 AWG through 2 AWG with copper conductors or sizes 10 AWG through 2 AWG with aluminum or copper-clad aluminum conductors. Conductors supplying receptacles shall be minimum size 12 AWG copper conductors or sizes 10 AWG with aluminum or copper-clad aluminum conductors. The communication conductors shall comply with Part V of Article 800.

23.30.410.17 Other closet or storage spaces.
Add section 410.17 as follows:

410.17 Other Closet or Storage Spaces. Luminaires shall meet the location requirements for clothes closets or be of a totally enclosed fluorescent or LED type.

23.30.445.18 Disconnecting means required for generators.
Add the following sentence to the end of the section:

Generator disconnecting means shall conform to the requirements of sections 23.30.230.70(A)(1) and 23.30.230.70(A)(3).

23.30.510 Hazardous (classified) locations.
Add the following informational note:
Informational Note: The requirement for elevation of ignition source in the International Mechanical Code and the International Fuel Gas Code does not constitute a hazardous classification in accordance with this code. The requirement for elevation of ignition source may apply to both classified and unclassified areas. The requirement reads as follows:

**Elevation of ignition source.** Equipment and appliances having an ignition source and located in hazardous locations and public garages, private garages, repair garages, automotive motor fuel-dispensing facilities and parking garages shall be elevated such that the source of ignition is not less than 18 inches above the floor surface on which the equipment or appliance rests. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate directly with a private garage through openings shall be considered to be part of the private garage. Rooms and spaces that are not part of the living space of a dwelling unit shall include but not be limited to utility, storage, mud, laundry, toilet and bathing rooms. Group F (factory), M (mercantile) and S (storage) occupancies with overhead doors providing access to vehicles and equipment containing combustible fuel shall comply with this section.

**23.30.511.3(C)(1) Major repair garages; floor areas.**
Replace subsection (1) with:

(1) **Floor Areas.** The entire floor area up to a level of 18 inches above the floor shall be classified as Class I, Division 2.

**23.30.511.3(C)(2) Major repair garages, ceiling areas.**
Replace paragraph (a) with the following:

(a) **Ventilation provided.** New buildings shall be classified as Class I, Division 2. For existing buildings only, the ceiling areas shall be unclassified where ventilation is provided, from a point not more than 18 inches from the highest point in the ceiling to exhaust the ceiling area at a rate of not less than 1 cfm/ft² of ceiling area at all times that the building is occupied or when vehicles using lighter-than-air gaseous fuels are parked below this area.

**23.30.511.3(D)(1) Minor repair garages; floor areas.**
Replace subsection (1) with:

(1) **Floor areas.** Floor areas in minor repair garages without pits, below grade work areas, or subfloor work areas shall be unclassified. Where floor areas include pits, below grade work areas, or subfloor work areas in lubrication or service rooms the floor area up to a level of 18 inches above any unventilated pit, below grade work area, or subfloor work area and extending a distance of 3 feet horizontally from the edge of any such pit, below grade work area, or subfloor work area, shall be classified as Class I, Division 2.
23.30.511.3(E)(1) Specific areas adjacent to classified locations.
Replace subsection (1) with:

(1) Specific areas adjacent to classified locations. Areas adjacent to classified locations in which flammable vapors are not likely to be released such as offices, stock rooms, switchboard rooms, and other similar locations shall be unclassified where any of the following parameters apply:

a) Adjacent areas less than 300 square feet and mechanically ventilated at a rate of four or more air changes per hour.

b) Adjacent areas designed with positive air pressure.

c) Adjacent areas effectively cutoff by walls or partitions.
Doorways shall be by means of a vestibule providing a two door separation.

23.30.513.3(D) Areas suitably cut off and ventilated.
Replace subsection (D) with:

(D) Areas Suitably Cut Off and Ventilated. Areas adjacent to classified locations in which flammable liquids or vapors are not likely to be released such as offices, stock rooms, electrical control rooms, and other similar locations shall be unclassified where designed with positive air pressure and effectively cutoff by walls. Doorways shall be by means of a vestibule providing a two door separation.

23.30.620.71(A) Motor controllers.
Add the following to the end of the paragraph:

Motor controllers that are recessed mounted in a wall with less than 1-1/4 inch clearance between the back of the cabinet and the inside surface of the wall sheathing shall be protected by 1/16 inch thick steel plate, or equivalent.

23.30.700.19 Multiwire branch circuits.
Add the following exception:

Exception: Existing installations on multiwire branch circuits where retrofit kits or same type replacements are installed, or no more than 6 new luminaires/unit equipment with associated branch wiring are added to each existing circuit.

23.30.702.5 Transfer equipment.
Add the following to the end of the section:

Transfer switches for residential applications which are installed without a permanently installed—generator shall be configured to allow installation as a separately derived system (i.e. an additional switched pole for the grounded conductor will be provided in the transfer switch).
CHAPTER 23.45 LOCAL AMENDMENTS TO THE INTERNATIONAL FIRE CODE 2012 EDITION

Sections


23.45.105.4.2 Information on construction documents.
23.45.105.6 Required operational permits.
23.45.202 General Definitions.
23.45.307.2.1 Authorization.
23.45.308.1.4 Open-flame cooking devices.
23.45.401.3 Emergency responder notification.
23.45.408 Use and occupancy-related requirements.
23.45.408.12 Occupants needing physical assistance.
23.45.502.1 Definitions.
23.45.503 Fire apparatus access roads.
23.45.506.1.2 Key boxes for nonstandardized fire service elevator keys.
23.45.607.4 Elevator key location.
23.45.901.6.2 Records.
23.45.903.2.3 Group E.
23.45.903.2.11 Specific building areas and hazards.
23.45.903.3.1.3 NFPA 13D sprinkler systems.
23.45.903.3.5 Water supplies.
23.45.907.1.2 Fire alarm shop drawings.
23.45.907.2.1 Group A.
23.45.907.2.2 Group B.
23.45.907.2.3 Group E.
23.45.907.2.4 Group F.
23.45.907.2.6.1 Group I-1.
23.45.907.2.7 Group M.
23.45.907.2.8.1 Group R-1: Manual fire alarm system.
23.45.907.2.9.1 Group R-2: Manual fire alarm system.
23.45.907.2.10.1 Manual fire alarm system.
23.45.907.5.2.1.1 Average Sound Pressure.
23.45.907.5.2.3 Visible alarms.
23.45.908.7 Carbon monoxide alarms.
23.45.1008.1.9.7 Delayed egress locks.
23.45.1015.2.2 Three or more exits or exit access doorways.
23.45.1103.3 Elevator operation.
23.45.1103.5 Sprinkler systems.
23.45.1103.7 Fire alarm systems.
23.45.1103.7.5.1 Group R-1 hotel and motel manual fire alarm system.
23.45.1103.8.1 Where required.
23.45.1104.16.5.1 Examination.
23.45.2006.3 Construction of aircraft-fueling vehicles and accessories.
23.45.3103.5 Use period.
23.45.3104.15 Heating and cooking equipment.
23.45 Chapter 80 Referenced standards.
23.45.D102.1 Access and loading.

23.45.APPENDIX K

SECTION K101 General.
K101.1 Scope.

SECTION K102 Definitions.
K102.1 Definitions.

SECTION K103 Fire protection system permits.
K103.1 General.
K103.2 Plan review requirements.
K103.3 Permit requirements.
K103.4 Fire systems requiring a permit.
K103.4.1 Fire systems requiring no plan review.

SECTION K104 Fire Protection System Reporting.
K104.1 Reporting.
K104.2 Fire system status.
K104.2.2 Status 2.
K104.2.3 Status 3.
K104.2.4 Status 4.


The amendments to the 2012 Edition of the International Fire Code are listed hereinafter by section. The last digits of the section number (after the title and chapter digits) refer to the section of the International Fire Code to which the amendment applies, i.e., 23.45.103.3.1.1 refers to section 103.3.1.1 of the International Fire Code (2012 Edition).

The 2012 International Fire Code, including Appendices B through G, I and K, are adopted as amended.

23.45.105.4.2 Information on construction documents.
Amend section 105.4.2 by adding a new Section 105.4.2.2 as follows:

105.4.2.2 Fire system plans. Fire system plans shall be designed by a State of Alaska Fire System Permit holder Level IC, IIC or IIIC only, in accordance with 13 AAC 50.027 or a professional mechanical or electrical engineer registered under AS 08.48. Plans shall include the following on each drawing:

1. Original signature or engineering seal;
23.45.105.6 Required operational permits.
Amend section 105.6 by adding a new section:

105.6.47 Connection to municipal fire alarm. An operation permit is required to connect a private fire alarm system to the municipal fire alarm circuit.

23.45.202 General Definitions.
Amend section 202 by adding definition for driveway:

DRIVEWAY. A vehicular ingress and egress route serving:
1. No more than five dwelling units, or
2. Not more than two unoccupied buildings or structures each with an area less than 1500 square feet.

23.45.307.2.1 Authorization.
Add the following sentence to the end of the paragraph:

Failure to obtain a required permit is prosecutable under AMC chapter 8.20, AMC section 15.35.100 and/or Alaska Statute chapter 41.15.

23.45.308.1.4 Open-flame cooking devices.
After the word "operated" add "or stored".

After the words "combustible balconies" add "and decks".

23.45.401.3 Emergency responder notification.
Amend by adding new Section 401.3.4 to read as follows

401.3.4 False alarm charges. The owner of a building containing a fire alarm or fire protection system shall pay a charge in accordance with AMC section 14.70.190 for false alarms to which the fire department responds.

As used in this section, “false alarm” means an alarm signal generated by a fire alarm system reporting an alarm for which no fire or emergency actually exists, and includes system malfunctions, faulty operation of detectors, and false alarms not classified above. It does not include incidents where the detector or system operated as designed, such as but not limited to, a smoke detector sounding from someone smoking under the detector or a manual pull station being pulled.

23.45.408 Use and occupancy-related requirements.
Amend 408 by adding a new Section 408.12 as follows:

23.45.408.12 Occupants needing physical assistance.
Facilities housing occupants needing physical assistance shall comply with this section.

408.12.1 Applicability. The provisions of this section apply to Group I-1 institutional and Group R-3 and R-4 residential care/assisted living facilities where the occupants require physical assistance from staff or others to respond to an emergency.

408.12.2 Definitions. The following terms shall have the meaning shown when used in Section 408.12.

Evacuation capability means the ability of occupants, residents, and staff as a group either to evacuate a building or to relocate from the point of occupancy to a point of safety;

Point of safety means a location (a) exterior to and away from a building or (b) within a building of any type construction protected throughout by an approved automatic sprinkler system and is either (1) within an exit enclosure meeting the requirements of section 1022 or (2) within another portion of the building separated by smoke partitions meeting the requirements of IBC section 710 with not less than one half hour fire resistance rating, and the portion of the building has access to a means of escape or exit conforming to the requirements of this code and does not require return to the area of the fire.

Prompt evacuation capability means a group has the ability to move reliably to a point of safety in a manner equivalent to the ability of a household in the general population as measured under section 408.12.3.

Slow evacuation capability means a group has the ability to move reliably to a point of safety in a manner not as rapid as members of a household in the general population, as measured under section 408.12.3.

Impractical evacuation capability means a group does not have the ability to reliably move to a point of safety in a timely manner as measured under section 408.12.3.

408.12.3 Fire drills. A fire drill conducted by the fire official or other approved licensee shall make the initial determination of evacuation capability. Changes to the evacuation capability shall be based on a record of drills conducted by the facility and
recorded for review by the fire official or other licensing official. The drills shall be conducted six (6) times a year on a bimonthly basis, with at least two (2) drills conducted during the night when residents are sleeping. Records shall indicate the time taken to reach a point of safety, date and time of the drill, location of simulated fire origin, escape paths used, and comments relating to residents who resisted or failed to participate in the drills. The relation of drill time to evacuation capability is as follows:

1. Three (3) minutes or less – prompt;
2. Over three (3) minutes but under 14 minutes – slow; or
3. Fourteen (14) minutes or more – impractical.

408.12.4 Evacuation capability and fire protection requirements. Evacuation capability and fire protection requirements of a facility under this section are as follows:

408.12.4.1 Prompt evacuation capability. Evacuation capability of three minutes or less indicates prompt evacuation capability. Facilities maintaining prompt evacuation capability are considered to be in compliance with this code.

408.12.4.2 Slow evacuation capability. Evacuation capability of more than three but less than 14 minutes indicates slow evacuation capability. Group I-1, R-3 and R-4 facilities maintaining slow evacuation capability must be protected by an automatic sprinkler system with quick response or residential sprinklers installed in accordance with section 903.3. Additionally, Group I-1 and R-4 facilities maintaining slow evacuation capability must be protected by an automatic smoke detection system using addressable smoke detectors in accordance with the provisions of this code.

408.12.4.3 Impractical evacuation capability. Evacuation capability of fourteen minutes or more indicates impractical evacuation capability. Impractical evacuation capability is not allowed and must be corrected.

23.45.502.1 Definitions. Amend 502.1 by adding DRIVEWAY to definitions.

23.45.503 Fire apparatus access roads. Amend 503.1 by adding the following sentence:

Driveways shall be provided and maintained in accordance with Section 503.7.
Amend 503 by adding a new Section 503.7 as follows:

503.7 Driveways. Driveways shall be provided when any portion of an exterior wall of the first story of a building is located more than 150 feet (45720 mm) from a fire apparatus access road. Driveways shall comply with Sections 503.7.1 through 503.7.4.

Exception: Where driveways cannot be installed because of topography, railways, waterways, non-negotiable grades or other similar conditions, the fire code official is authorized to require additional fire protection.

503.7.1 Dimensions. Driveways shall provide a minimum unobstructed width of 12 feet (3658 mm) and a minimum unobstructed height of 13 feet 6 inches (4115 mm).

503.7.2 Length. Driveways in excess of 150 feet (45720 mm) in length shall be provided with a turnaround[s]. Driveways in excess of 200 feet (60960 mm) in length and less then 20 feet (6096 mm) in width shall be provided with a turnout[s] in addition to a turnaround[s].

503.7.3 Turnarounds. The design for driveway turnarounds shall be approved by the fire code official.

503.7.4 Turnouts. Driveway turnouts shall be an all-weather road surface at least 10 feet (3048 mm) wide and 30 feet (9144 mm) long. Driveway turnouts shall be located as required by the fire code official.

23.45.506.1.2 Key boxes for nonstandardized fire service elevator keys.

Amend by changing the language of 506.1.2 Item 1 to the following:

The key cylinder for the Elevator key box shall be of a tubular, 7 pin, style 137 construction and shall have a bitting code of 6143521 starting at the tab sequenced clockwise as viewed from the barrel end of the key. The key shall be coded “FEO-K1”.

23.45.607.4 Elevator key location.

Amend by adding the following clarifying language to 607.4:

Building owners/managers shall have 2 years from the date of adoption of this requirement to complete the following for all existing buildings with elevators. The keys to be provided in the elevator key box shall include but are not limited to; the machine room/space or control room/space keys (as is applicable to the elevator(s) in each building), the proper hoist way door unlocking device keys for the particular vintage of elevator or bank of elevators, a fire service key for
each phase-I and phase-II switch, a key to the auxiliary power selector switch (if present), stop/run keys (if present), and all other keys located in the elevator car operating panels, such as the fans, lights, floor lockouts and service cabinets. All keys shall be marked for their intended use.

23.45.901.6.2 Records.
Amend section 901.6.2 by deleting “upon request” and replacing it with “in accordance with appendix K”.

23.45.903.2.3 Group E.
Delete 903.2.3 and replace with the following:

An automatic sprinkler system shall be provided throughout all buildings that contain a Group E occupancy and for every portion of educational buildings below the level of exit discharge. The use of a fire wall does not establish a separate building for purposes of this section.

Exception: Buildings with Group E occupancies having an occupant load of 49 or less.

Daycare uses licensed to care for more than five (5) persons between the hours of 10 p.m. and 6 a.m. shall be equipped with an automatic sprinkler system designed and installed in accordance with subsection 903.3.1 or an approved equivalent system.

23.45.903.2.11 Specific building areas and hazards.
Amend by adding the following sections:

[903.2.11.7 Pit sprinklers. Sprinklers shall be installed in the bottom of all new elevator pits below the lowest projection of the elevator car but no higher than 24” (609.6 mm) from the bottom of the pit when the building has a sprinkler system.]

903.2.11.8 Sprinkler systems shall not be allowed in elevator machine rooms/ spaces or control room/ spaces and at the tops of hoist ways, except as required by NFPA13 8.15.5.6.

903.2.11.8.1 Sprinklers shall be required in all spaces where combustible elevator belts are present.

23.45.903.3.1.3 NFPA 13D sprinkler systems.
Amend section by adding the following sentence:

All required automatic sprinklers systems installed in accordance with NFPA 13D shall have a minimum 30 minute water supply or a minimum 20 minute water supply with a FDC for Group R-3 and R-4 occupancies.
AMEND BY ADDING NEW SECTION 903.3.5.3 AS FOLLOWS:

**903.3.5.3 Fire sprinkler hydraulic water flow design.** Fire sprinkler hydraulic water flow design shall be by one of the following methods:

1. Preferred method. Fire sprinkler hydraulic design water supply shall be from AWWU computer model Max Day demand.

2. Alternate method. Can only be used if AWWU computer model cannot be obtained. Fire sprinkler system being designed with water supply data from a hydrant flow test shall have a 10 percent minimum flow rate safety factor at the water source. Hydrant flow test shall be witnessed by the fire code official or their designee.

**23.45.907.1.2 Fire alarm shop drawings.**

Amend section by adding the following construction drawing to the list of those required to be submitted:


**23.45.907.2.1 Group A.**

Delete Exception.

**23.45.907.2.2 Group B.**

Delete Exception.

**23.45.907.2.3 Group E.**

Amend 907.2.3 (Group E) by adding a second paragraph to read:

Rooms used for sleeping or napping purposes within a day care use of a Group E occupancy shall be provided with smoke alarms that comply with Section 907.2.11.2.

Replace “30” in exception #1 one with “50”.

Delete Exception #2 and replace with the following:

2. Emergency voice/alarm communication systems are not required in group E occupancies with an occupant load of 100 or less.

Delete Exception #3.

**23.45.907.2.4 Group F.**

Delete Exception.

**23.45.907.2.6.1 Group I-1**

Delete Exception #1
23.45.907.2.7  Group M.
Delete Exception #2.

23.45.907.2.8.1  Group R-1: Manual fire alarm system.
Delete Exception #2.

23.45.907.2.9.1  Group R-2: Manual fire alarm system.
Amend section 907.2.9.1 by deleting first sentence and replacing it with:

A manual fire alarm system and an automatic fire detection system with smoke detection in the public and common use areas shall be installed in Group R-2 occupancies where:

Amend by deleting Exception # 2.

23.45.907.2.10.1  Manual fire alarm system.
Delete Exception # 2

23.45.907.5.2.1.1  Average sound pressure.
Add the following sentence:

The minimum sound pressure level in every occupiable space shall be 75 dBA in Group R occupancies and 60 dBA in all other occupancies.

23.45.907.5.2.3  Visible alarms.
Amend 907.5.2.3 by adding the following to Exception #1:

An upgrade shall be the replacement of a fire alarm panel, or fire system components providing improved functional performance or capabilities. (A software upgrade is exempt from this requirement.)

23.45.908.7  Carbon monoxide alarms.
Replace section 908.7 with the following:

908.7.1 Carbon monoxide alarms. The provisions of this section apply to Group I-1, R-2, R-3 and R-4 occupancies, and Group A and E occupancies where individuals sleep on a periodic basis. At least one (1) carbon monoxide alarm shall be installed on each floor level. If a floor level contains bedrooms or sleeping rooms, at least one (1) alarm shall be located in the immediate vicinity of the sleeping area, outside of the bedrooms/sleeping rooms. Carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer’s instructions. The alarm shall be clearly audible in all sleeping rooms with intervening doors closed as required by NFPA 720.

Exceptions:
1. Carbon monoxide detectors are not required in dwelling units and structures with no combustion appliances and that do not have an attached enclosed garage.

2. Carbon monoxide detectors are not required in dwelling units and structures with only direct vent combustion appliances and that do not have an attached enclosed garage.

3. Carbon monoxide detectors are not required in Group A, E, I-1, and R-2 occupancies where all combustion equipment is located within a mechanical room separated from the rest of the building by construction capable of resisting the passage of smoke. If the structure has an attached enclosed parking garage, the garage shall be ventilated by an approved automatic carbon monoxide exhaust system designed in accordance with the mechanical code.

908.7.2 Interconnection. In new construction, all carbon monoxide detectors located within a single dwelling unit shall be interconnected in such a manner that actuation of one alarm shall activate all of the alarms within the individual dwelling unit.

908.7.3 Power source. In new construction, carbon monoxide detectors shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Wiring shall be permanent and without disconnecting switch other than those required for overcurrent protection. In existing construction, carbon monoxide detectors shall be permitted to be battery powered or cord-and-plug type with battery backup.

908.7.4 Carbon monoxide detection systems. Carbon monoxide detection systems, which include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

23.45.1008.1.9.7 Delayed egress locks.
Revise item number 3 to read as follows:

3. The door locks shall have the capability of being unlocked by a signal from an approved location.

23.45.1015.2.2 Three or more exits or exit access doorways.
Amend section 1015.2.2 to read as follows:

Where access to three or more exits is required, three exits shall be separated from each other by a minimum distance of one-third the maximum overall diagonal dimension of the area served.
23.45.1103.3 Elevator operation.
Amend section 1103.3 by adding a subsection 1103.3.1.

1103.3.1 Compliance date. Buildings where the elevator(s) have a rise of 75 feet or greater shall have until January 1, 2021 to comply with 1103.3. Buildings where the elevator(s) fall within the scope of 1103.3 and have a rise of less than 75 feet shall have until January 1, 2025 to comply with 1103.3.

23.45.1103.5 Sprinkler systems.
Delete “and 1103.5.2” and add “through 1103.5.4”.

Add two new subsections as follows:

1103.5.3 Group E occupancies. An approved automatic fire extinguishing or sprinkler system shall be installed throughout an existing building containing a Group E occupancy having an occupant load of 50 or more in accordance with Section 903.2.3, as amended, whenever alterations involving the reconfiguration of space, or additions are made to the Group E occupancy.

1103.5.4 Pit sprinklers. In buildings that contain a fire sprinkler system, sprinklers shall be installed in the bottom of all existing elevator pits below the lowest projection of the elevator car but no higher than 24" from the bottom of the pit.

23.45.1103.7 Fire alarm systems.
Amend section 1103.7 by adding the following to the end of the exception:

“…meeting a minimum sound pressure level of 65 dBA in Group R and I-1 occupancies and 60 dBA in other occupancies.”

23.45.1103.7.5.1 Group R-1 hotel and motel manual fire alarm system.
Amend section 1103.7.5.1 by deleting Exception #2.

23.45.1103.8.1 Where required.
Amend section 1103.8.1 by deleting Exceptions number 1 and 2. Renumbeри Exception 3 to Exception 1.

23.45.1104.16.5.1 Examination.
Amend section by deleting 1104.16.5.1 Examination.

23.45.2006.3 Construction of aircraft-fueling vehicles and accessories.
Revise 2006.3 by adding Exceptions to read:
**Exception:** A vehicle or trailer tank with a capacity of 500 gallons or less may be used for non-commercial refueling of private non-commercial aircraft provided:

1. The tank is placarded with no smoking signs, the type of fuel contained in the tank, and the tank capacity;
2. The tank and all appurtenances used in the fueling operation are listed and approved for the specific purpose;
3. Electrical bonding is provided as required under Section 2006.3.7.
4. Two (2) listed portable fire extinguishers complying with section 906, each having a minimum rating of 20-B:C are provided. A portable fire extinguisher shall be readily accessible from either side.

**23.45.3103.5 Use period.**
Add a new exception to read as follows:

**Exception:** Seasonal Use Structures permitted under AMC 23.10.104.3.

**23.45.3104.15 Heating and cooking equipment.**
Amend 3104.15 by adding at the end of the sentence:

“unless as otherwise approved by the fire code official.”

**23.45 Chapter 80 Referenced standards.**
Amend IFC chapter 80 by adding:

NFPA 291 – 12...............Recommended Practice for Fire Flow Testing and Marking of Hydrants, ......................... Ref. 507.5.2

**23.45.D102.1 Access and loading.**
Amend section by deleting 75,000 pounds and replacing it with 80,000 pounds.

**23.45.APPENDIX K**
Amend Part VII - Appendices by adding APPENDIX K to read as follows:

APPENDIX K

FIRE PROTECTION SYSTEM PERMITS AND STATUS REPORTING

SECTION K101 GENERAL
K101.1 Scope.
Fire protection system permits and service reports shall be in accordance with this appendix and all other applicable requirements of the International Fire Code.

SECTION K102 DEFINITIONS.

K102.1 Definitions.
For the purpose of this appendix, certain terms are defined as follows:

FIRE SYSTEM MAINTENANCE. Maintenance to fire systems may include like for like change of system devices. Fire system maintenance shall not require a permit.

SECTION K103 FIRE PROTECTION SYSTEM PERMITS.

K103.1 General.
Permits for fire protection systems shall be issued by the Fire Code Official. The building owner shall maintain a record of all fire system modifications in accordance with section 901.2.2.

K103.2 Plan review requirements.
Fire system plan review may be required by the fire code official whenever a fire system is changed, modified, or when the proposed modifications are determined to be special circumstances which require further plan review.

K103.3 Permit requirements.
Whenever a permit is required for a fire protection system a permit application shall be submitted along with all supporting documentations to the fire code official.

K103.4 Fire systems requiring a permit.
A permit shall be required when any of the following exist:

1. New fire systems. A permit for a fire system is required on all new fire systems whether the system is required or not.

2. Fire sprinkler and water based systems. A fire systems permit is required for fire sprinkler and water based systems under the following conditions:
   a. Whenever there is a relocation of 15 or more or an addition of 6 or more sprinkler heads to a system riser.
b. Whenever 4 or more conventional sprinklers and piping are replaced with flexible piping and sprinklers.

c. Whenever there are changes to piping that require seismic bracing.

d. Whenever there are changes to the most demanding design density flow area.

e. Increase to the building area and/or an increase to the system design density.

f. High pile/rack storage sprinkler system modifications.

g. All additions to an in-rack sprinkler system or a new in rack sprinkler system.

h. Any change to an ESFR sprinkler system.

i. Any change to a sprinkler system that has a 0.2 gpm/sf or greater density.

j. At the discretion of the fire official considering that there may be sufficient changes to the system and that the minimum design density requirements and/or seismic bracing requirements must be verified.

k. Pipe schedule systems must be plan reviewed if the changes will affect pipe size anywhere other than on a branch line or any of the above requirements.

Note: Sprinkler head addition limitation to a system is cumulative. This means that if 6 sprinklers require a permit or plan review and 5 sprinklers are added one month and 1 sprinkler a month later, it does not negate the need to obtain a permit or plan review. As soon as 6 sprinklers, (cumulative) are modified or added, then a plan review and construction permit shall be required.

3. Backflow prevention device. A fire system permit with full drawings and hydraulic calculations shall be required for installation of a Backflow Prevention Device under the following conditions:

a. New backflow prevention device installed on a water-based fire system that previously did not have a backflow installed.

b. New backflow prevention device installed on a water-based fire system that is in addition to the backflow prevention devices that were previously approved for installation.

c. Changing a backflow prevention device from a double check to a reduce pressure backflow device.

d. New sprinkler system installations.
4. **Fire alarm system.** A fire system permit is required for fire alarm systems under the following conditions:
   a. Fire alarm control panel is replaced or upgraded—Full visual upgrade is required per the IFC.
      i. **Provide:** battery calculations, verification that sound pressure level measured in dBA are adequate, system components are compatible.
   b. Any changes to a networked fire alarm system.
   c. Addition of a booster power supply.
   d. Addition of 11 or more initiating devices on any fire alarm system. All changes must be documented on the plans with corrected voltage drops, battery calculations, etc.
      i. **Provide:** battery calculations, verification that sound pressure level measured in dBA are adequate, system components are compatible, that circuit capacities are not exceeded with new devices, wiring diagram showing the connection between new and existing systems.
   e. Addition of 6 or more fire alarm indicating devices on any fire alarm system. All changes must be documented on the plans with corrected voltage drops, battery calculations, etc.
      i. **Provide:** battery calculations, verification that sound pressure level measured in dBA are adequate, line voltage calculations for lines with new devices, wiring diagram showing the connection between new and existing systems.
   f. If a permit is not required, provide a system certification form and a basic as-built plan showing the location of the new devices and which circuit was augmented.

**Note:** The device addition limitation to a system is cumulative. This means that if 7 devices require a permit or plan review and 6 devices are added one month and 6 devices are added a month later, it does not negate the need to obtain a permit or plan review. As soon as 7 devices (cumulative) are reached than a plan review and construction permit shall be required.
5. **Kitchen hood fire systems.** A fire systems permit is required for kitchen hood fire systems under the following conditions:
   a. If there is addition of 4 or more nozzle flow points to a system not exceeding maximum allowable flow points for the cylinder
   b. If there is additional agent cylinders to be added
   c. If there is a larger agent cylinder added
   d. If the system is relocated

   **Note:** The device addition limitation to a system is cumulative. This means that if 3 flow points are added one month and 1 flow point is added a month later, it does not negate the need to obtain a permit or plan review. As soon as 4 flow points (cumulative) are reached than a plan review and construction permit shall be required.

6. **Special hazard fire systems.** A fire systems permit is required for special hazard fire systems under the following conditions:
   a. If there is any addition or deletion to the system.
   b. If the system is relocated.

7. **Fire standpipe system.** A fire systems permit is required for fire standpipe systems under the following conditions:
   a. If there is any addition or modification to the system.

8. **Fire Pump.** A fire systems permit is required for fire pumps under the following conditions:
   a. If there is any addition to the system
   b. Change out of the fire pump
   c. Change out of the fire pump controller
   d. Modifications to piping arrangements
   e. Change out or rebuilding of electric motor/diesel engine
   f. Changes to electrical service

**K103.4.1 Fire systems requiring no plan review.**
In cases where changes are made to fire systems and a plan review is not required, the following actions shall be required by the company/individual making the changes:

1. Design must be performed by a person holding a Level C State of Alaska Fire Systems Permit.

   **Exception:** Sprinkler addition can be documented by a Level B State of Alaska Fire Systems Permit hold if the repairs are done per the pipe schedule parameters set in
NFPA 13. Additions must be indicated in requirement (2d) that it was done per pipe schedule and does not exceed the limitations of a pipe schedule system.

2. A person holding a Level B or C State of Alaska Fire Systems permit shall make the changes.

3. The person making the changes shall submit a letter to the permanent building fire system file in accordance with section 901.6.2.1 and 907.8, after the changes are made explaining what was changed, a simple diagram on 8 ½ x 11 paper of the changes, a statement verifying that the changes are in compliance with the appropriate standard/code, the permit number of the person who actually made the changes, and the signature of the person who performed the repairs.

4. The person who designed the changes shall provide a letter to the Fire Marshal’s Office no later than thirty (30) days after the changes are made explaining the following: What was changed; a statement verifying that the changes are in compliance with the appropriate standard/code; the permit number of the person who actually made the changes; and the permit number and signature of the person who performed the design.

SECTION K104  FIRE PROTECTION SYSTEM REPORTING.

K104.1 Reporting.
All fire service companies providing services in the Building Safety Service Area shall provide a legible copy of the fire system service report to the Division of Fire Prevention, Anchorage Fire Department. System service reports shall contain the following information:

1. Company name, address, and phone number.
2. Inspector’s first and last name and State of Alaska Fire System Permit number issued under 13 AAC 50.035.
3. Contact phone number: office and cell if available.
4. System Status (1-4)
5. Deficiencies shall be typed or legibly hand written and shall be printed text (no cursive/long hand handwriting).
6. All reports shall have building name, occupancy inspected, and address clearly identified on the first page, and all subsequent pages shall have the building name and date of inspection on the top of the page.
7. All reports shall have the building contact person’s name and phone number on the front page.
8. Only white or yellow copies will be accepted for reports submitted.
9. Deficiency write-ups must include the code citation that is in violation and a description of the problem.

**K104.2 Fire system status.**

Fire protection system service reports shall contain the status of the system serviced in accordance with K104.2.1 through K104.2.4.

**K104.2.1 Status 1.** Systems out of service or having identified major deficiencies shall be reported as Status 1. The fire service company shall immediately contact the Division of Fire Prevention at 267-4901, if the system cannot be returned to service. After-hours or on weekends, contact AFD dispatch at 267-4950. Written notification shall be faxed to the Fire Marshal’s Office within 24 hours at 249-7788.

**K104.2.1.1 Corrective action.** Systems reported as Status 1 shall be repaired immediately. Building and facilities with systems reported as Status 1 shall comply with IFC 901.7 through 901.7.6, and AFD Fire watch policy 08-010.

**K104.2.1.2 Qualifying deficiencies.** Systems with deficiencies listed in K104.2.1.2.1 through K104.2.1.2.5 shall be reported as Status 1.

**K104.2.1.2.1 Fire sprinkler or water based system:**

1. Non-working flow/pressure switches.
2. Damage to fire department connections.
3. No water to system.
4. Frozen or otherwise damaged system.
5. Local sprinkler alarm not functioning.
6. Large quantities of corrosion scale or debris found when flowing of test connections, remote drains or water motor gong alarm lines. Clogged or plugged sprinkler heads, test ports or alarm lines.
7. Physically damaged piping, sprinkler heads or valves (such as from forklift strike).
8. Main drain test where residual pressure drops below 20 psi during flow of main drain.

9. Where any of the following occur:
   - All sprinkler heads are painted in any room exceeding 1000 square feet.
   - When 25% of sprinkler heads are painted within any building.
   - When 20 or more sprinkler heads are painted in any building.
10. Antifreeze systems where freeze protection is rated above 20° Fahrenheit.

**K104.2.1.2.2 Fire pump:**
1. Non-working fire pump.
2. Fire pump controls not working or malfunctioning.
3. Degradation of water supply below rating of pump, or any degradation causing cavitations of pump.

**K104.2.1.2.3 Fire alarm system (detection and alarm):**
1. Non-working fire alarm panel.
2. Malfunctioning fire alarm panel.
3. Audio and visual devices not working entire NAC loop.
4. Detection not working entire detection loop.
5. Loss of programming.
6. Audio & visual devices not working - more than three devices in building.
7. Detection devices not working - more than three devices in building.

**K104.2.1.2.4 Kitchen hood fire system:**
1. System cylinder is not charged or is leaking.
2. Appliance not properly covered due to rearrangement of appliances.
3. Plugged discharge nozzles.
5. Fuel or electric power supply not shutting off.

**K104.2.1.2.5 Required clean agent or special hazard system:**
1. System cylinder is not charged or is leaking.
2. Releasing panel not functional.
3. Where any of the following occur:
   - New holes and/or openings in walls and ceilings.
   - Wall or ceiling removed in system area.
   - Faulty door closers where required.
   - In any room or system area, physical changes to the building which could change clean agent concentration level, which adversely impact systems ability to perform as designed.
K104.2.2 Status 2.
Systems with a critical deficiency shall be reported as Status 2. The fire service company shall contact the Division of Fire Prevention at 267-4901 or by fax at 249-7788 within 14 days from the date of inspection if the deficiency cannot be repaired and system returned to service. Reports shall be sent to the Fire Marshal’s Office in a manner approved by the fire code official.

K104.2.2.1 Corrective action. Systems reported as Status 2 shall be repaired within 14 days.

K104.2.2.2 Qualifying deficiencies. Systems with deficiencies listed in K102.2.2.2.1 through K102.2.2.2.6 shall be reported as Status 2.

K104.2.2.2.1 Fire sprinkler or water based system.
1. Five or more painted sprinkler heads in a concentrated area or more than 10 in a facility.
2. Change of use in buildings which causes a change in the occupancy classification to a higher hazard occupancy.
3. Low water pressure - negative changes of 10% or more of static or residual pressures during main drain test from previous year test or from original flow information where available.
4. Any other major problem that will affect the performance - (bad trim valves, pressure switches, etc.).
5. No monitoring on required systems.
6. Five-year obstruction investigation not performed or not verifiable.
7. Water control valves that will not hold back water / allow water to leak by.

K104.2.2.2.2 Fire pump.
1. Low fuel
2. Pump packing leaking beyond specifications.
3. Fire pump room below 40 degrees.
4. Fire pump not meeting its rated discharge pressure or GPM flow over a 10% difference.
5. Any other major problem that will affect the performance.
K104.2.2.3 Fire alarm system (detection and alarm).
1. Batteries overdue for replacement.
2. No monitoring on required system.
3. Audio and visual devices not working – up to three devices; over three devices Status 1.
4. Detection not working – up to three devices; over three devices Status 1.
5. Any other major problem that will affect the performance.

K104.2.2.4 Kitchen hood fire system.
1. Hood and ducts with heavy grease buildup.
2. Any other major problems that will affect the performance.

K104.2.2.5 Required clean agent or special hazard system.
1. Room not properly sealed.
2. Room size has changed.
3. Expired Squibs.
4. HVAC shut downs not properly working.
5. Any other major problem that will affect the performance.

K104.2.2.6 Non-required clean agent or special hazard system.
1. Room not properly sealed.
2. Room size has changed.
3. Expired Squibs.
4. HVAC shut downs not properly working.
5. Any other major problem that will affect the performance.
6. System cylinder is not charged or is leaking.
7. Releasing panel not functional.
8. Wall or ceiling removed in system area.
9. Faulty door closers where required.
10. In any room or system area, physical changes to the building which could change clean agent concentration level, which adversely impact system’s ability to perform as designed.

K104.2.3 Status 3.
Systems with a minor deficiency shall be reported as Status 3. Status 3 reports shall be provided to the Division of Fire Prevention in a manner approved by the fire code official within
30 days from the date of inspection. These deficiencies will not affect the performance of the system.

**K104.2.3.1 Corrective action.** Systems reported as Status 3 shall be repaired within 30 days.

**K104.2.3.2 Qualifying deficiencies.** Systems with minor deficiencies such as missing signs, data plates, leaking ball drip, improperly identified zones in panel programming, and similar items which will not affect the ability of the system to perform in any way shall be reported as Status 3. Includes any items not included in Status 1 or Status 2, and defined by NFPA as deficiencies.

**K104.2.4 Status 4.**
System with no deficiencies shall be reported as Status 4. Status 4 reports shall be provided to the Division of Fire Prevention in a manner approved by the fire code official within 30 days from the date of inspection.

### CHAPTER 23.55 FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS 2012 EDITION

**Sections**

- 23.55.100 Definitions.
- 23.55.200 Policy.
- 23.55.210 Implementation.
- 23.55.300 Cost of services.
- 23.55.400 Responsibility for payment.
- 23.55.500 Enforcement.

**23.55.100 Definitions.**

Whenever the term "municipally financed fire protection" is used, it shall include services received from the Municipality of Anchorage Fire Department, and other service areas offering tax-supported fire-protection services.

A. **Accidental alarm** means an alarm set off and transmitted through accidental operation of an automatic or manual fire alarm device, frequently caused by low air pressure on an automatic fire-extinguishing system, dry valves, excessive heat due to industrial processes or cold weather.

B. **Call out** means the initial response of a fire department to a report of a fire.

C. **Needless alarm** means an alarm of fire apparently given in good faith which proves to be needless because fire department assistance was not required.
23.55.200  Policy.

The policy of the municipality is to provide fire protection within service areas to the maximum extent possible within the budgets approved by the Assembly and supported by taxes raised within the service areas. Further, the municipality recognizes a supplementary obligation to protect lives and property from destruction by fire in areas of the municipality which do not support fire protection services by taxes or voluntary contributions sufficient to maintain a volunteer fire department capable of responding adequately to all calls twenty-four (24) hours per day, seven (7) days per week throughout the year.

23.55.210  Implementation.

The mayor is authorized to permit the use of municipally financed fire protection services outside of the areas providing tax or other adequate support for the services on the following conditions:

A. The first obligation is to areas furnishing tax support, and the service to the outside areas shall not jeopardize the service to the areas furnishing tax support,

B. The second obligation is to areas which voluntarily contribute to the maintenance of a 24-hour-per-day, seven-day-per-week fire department.

C. The third obligation is to other areas.

23.55.300  Cost of services.

A. In areas outside of fire service areas, $500.00 shall be charged for call out of the Fire Department. After the first hour, hourly rates for each piece of fire apparatus used in suppressing the fire shall be charged in accordance with the following:

1. Pumper: $75.00 per hour.
2. Tanker: $75.00 per hour.
3. Brush tank: $75.00 per hour.
4. Bulldozer: $75.00 per hour.

23.55.400  Responsibility for payment.

A. The responsibility for payment of the charges in section 23.55.300 shall rest jointly and severally upon the following:

1. Owners of the property upon which the fire originated;
2. Tenants of the property upon which the fire originated;
3. Persons residing on the property upon which the fire originated; and
4. Any person legally responsible for the fire by reason of negligence or otherwise.
B. For the purpose of this section only, the term "fire" is meant to include not only fires but any action or omission to act which results in a needless or accidental alarm.

C. **APPEAL.** Charges incurred under section 23.55.300 may be appealed to the Assembly for reconsideration including waived fees, reduced fees, or alternate payment options.

### 23.55.500 Enforcement.

The municipality shall have the right to bring suit for the collection of these charges, plus costs and attorneys' fees, against any or all of the parties responsible for payment.

### CHAPTER 23.60 LOCAL AMENDMENTS TO THE INTERNATIONAL ENERGY CONSERVATION CODE 2012 EDITION

#### Sections

- **23.60.100** Local amendments to the International Energy Conservation Code 2012 Edition.
- **23.60.C102-C109** Delete sections.
- **23.60.C303.1.4** Insulation product rating.
- **23.60. Table C402.1.2** Opaque Thermal Envelope Assembly Requirements.
- **23.60. Table C402.2** Opaque Thermal Envelope Requirements.
- **23.60. Table C402.3** Building Envelope Requirements: Fenestration.
- **23.60.C402.2.1** Roof assembly.
- **23.60.C402.2.4** Thermal resistance of below-grade walls.
- **23.60.C402.2.6** Slabs on grade.
- **23.60.C403.2.2** Equipment and system sizing.
- **23.60.C403.2.4.4** Shutoff damper controls.
- **23.60.C403.2.6** Energy recovery ventilation systems.
- **23.60.C403.2.7.1.3** High-pressure duct systems.
- **23.60.C403.2.8** Piping insulation.
- **23.60.C403.2.10** Air system design and control.
- **23.60.C403.4.3.4** Part load controls.
- **23.60.C404.3** Temperature control.
- **23.60.C405.2.1.1** Interior lighting controls.
- **23.60.C405.2.1.2** Light reduction controls.
- **23.60.C405.2.2** Additional lighting controls.
- **23.60.C405.2.2.1** Automatic time switch control devices.
- **23.60.C405.2.2.2** Occupancy sensors.
- **23.60.C405.2.2.3** Daylighting zone control.
- **23.60.C405.5** Interior lighting power requirements (Prescriptive).
- **23.60.C408.2** Mechanical systems commissioning and completion requirements.
- **23.60.R102-R109** Delete sections.
- **23.60.R303.1.4** Insulation product rating.
- **23.60.R401.3** Certificate (Mandatory).
23.60. Table R402.1.1 Insulation And Fenestration Requirements By Component.

23.60. Table R402.1.3 Equivalent U-Factors.

23.60.R402.2.1 Ceilings with attics.

23.60.R402.2.10 Crawl space walls.

23.60.R402.3.7 Glazing limitation.

23.60.R402.4.1.2 Testing.

23.60.R402.6 Crawl space.

23.60.R402.7 Ventilation.

23.60.R403.2.3 Building Cavities (Mandatory).

23.60.R403.3 Mechanical system piping insulation.

23.60.R403.6 Equipment sizing (Mandatory).

23.60.R405.3 Performance based compliance.


The amendments to the 2012 edition of the International Energy Conservation Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the International Energy Conservation Code to which the amendments refer.

23.60.C102-C109 Delete sections.

Delete sections C102 through C109. Refer to the Anchorage Administrative Code.

23.60.C303.1.4 Insulation product rating.

Add the following exception:

Exception: A mean testing temperature of 40°F is acceptable for demonstrating compliance with this code.

23.60. Table C402.1.2 Opaque Thermal Envelope Assembly Requirements.

Replace TABLE C402.1.2 with the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Maximum Allowable Factor</th>
<th>ANSI/ASHRAE/IESNA 90.1 Appendix A Section Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofs - Insulation entirely above deck</td>
<td>U-0.032</td>
<td>A2.2</td>
</tr>
<tr>
<td>Roofs - Metal Buildings (W/R-5 Thermal Blocks)</td>
<td>U-0.049</td>
<td>A2.3</td>
</tr>
<tr>
<td>Roofs - Attic and Other</td>
<td>U-0.027</td>
<td>A2.4, A2.5</td>
</tr>
<tr>
<td>Walls Above Grade - Mass</td>
<td>U-0.071</td>
<td>A3.1</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Walls Above Grade - Metal Building</td>
<td>U-0.057</td>
<td>A3.2</td>
</tr>
<tr>
<td>Walls Above Grade - Metal Framed</td>
<td>U-0.064</td>
<td>A3.3</td>
</tr>
<tr>
<td>Walls Above Grade - Wood framed and Other</td>
<td>U-0.051</td>
<td>A3.4</td>
</tr>
<tr>
<td>Walls, Below Grade</td>
<td>C-0.119</td>
<td>A4.2</td>
</tr>
<tr>
<td>Floors – Mass</td>
<td>U-0.064</td>
<td>A5.2</td>
</tr>
<tr>
<td>Floors - Steel Joist/Framing</td>
<td>U-0.033</td>
<td>A5.3</td>
</tr>
<tr>
<td>Floors - Wood Joist/Framing</td>
<td>U-0.033</td>
<td>A5.4</td>
</tr>
<tr>
<td>Slab-on-grade Floors – Unheated</td>
<td>F-0.52</td>
<td>A6.3</td>
</tr>
<tr>
<td>Slab-on-grade Floors - Heated</td>
<td>F-0.84</td>
<td>A6.3</td>
</tr>
</tbody>
</table>

*a* Use of opaque assembly U-factors, C-factors and F-factors from ANSI/ASHRAE/IESNA 90.1 Appendix A is permitted, provided the construction complies with the applicable construction details from ANSI/ASHRAE/IESNA 90.1 Appendix A.

23.60. Table C402.2  Opaque Thermal Envelope Requirements.
Replace TABLE C402.2 with the following:

| TABLE C402.2  
OPAQUE THERMAL ENVELOPE REQUIREMENTS  
CLIMATE ZONE 7 
All Other and Group R |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofs - Insulation entirely above deck</td>
<td>R-30ci</td>
</tr>
<tr>
<td>Roofs - Metal Buildings (with R-5 thermal blocks per ASHRAE 90.1 Appendix A)</td>
<td>R-13 + R-19</td>
</tr>
<tr>
<td>Roofs - Attic and Other</td>
<td>R-38</td>
</tr>
<tr>
<td>Walls - Above Grade - Mass</td>
<td>R-15.2ci</td>
</tr>
<tr>
<td>Walls - Above Grade – Metal Building</td>
<td>R-19+R-5.6ci</td>
</tr>
<tr>
<td>Walls - Above Grade – Metal Framed</td>
<td>R-13+ R-7.5ci</td>
</tr>
<tr>
<td>Walls - Above Grade – Wood framed and other</td>
<td>R-13+ R-7.5ci or R-21</td>
</tr>
<tr>
<td>Walls - Below Grade</td>
<td>R-8ci</td>
</tr>
<tr>
<td>Floors – Mass</td>
<td>R-15ci</td>
</tr>
</tbody>
</table>
| Floors – Joist/Framing - Note: For framing cavities 12 inches or less in depth the entire cavity shall be filled with insulation. | R-30 wood framing  
R-38 metal framing |
| Floors - Slab-on-grade, unheated | R-8, extending 36” below |
| Floors - Slab-on-grade, heated | R-10, extending 36” below |
| Opaque Doors – Swinging | U -0.50 |
| Opaque Doors – Roll-up or sliding | U -0.50 |

23.60. Table C402.3  Building Envelope Requirements: Fenestration
Replace TABLE C402.3 with the following:
TABLE C402.3
BUILDING ENVELOPE REQUIREMENTS: FENESTRATION
CLIMATE ZONE 7

<table>
<thead>
<tr>
<th>Description</th>
<th>U-factor Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical fenestration - U-factor - Framing materials other than metal with or without metal reinforcement or cladding</td>
<td>0.35</td>
</tr>
<tr>
<td>Vertical fenestration - U-factor - Metal Framing with or without thermal break – Curtain wall/storefront</td>
<td>0.40</td>
</tr>
<tr>
<td>Vertical fenestration - U-factor - Metal Framing with or without thermal break – Entrance Doors</td>
<td>0.80</td>
</tr>
<tr>
<td>Vertical fenestration - U-factor - Metal Framing with or without thermal break – All other - Including operable windows, fixed windows and non-entrance doors</td>
<td>0.45</td>
</tr>
<tr>
<td>Vertical fenestration - SHGC - PF&lt;0.25</td>
<td>0.45</td>
</tr>
<tr>
<td>Vertical fenestration - SHGC - PF≥0.25</td>
<td>No Requirement</td>
</tr>
<tr>
<td>Skylights - U-factor - Glass or plastic</td>
<td>0.60</td>
</tr>
<tr>
<td>Skylights - SHGF - Glass or plastic</td>
<td>No Requirement</td>
</tr>
</tbody>
</table>

23.60.C402.2.1 Roof assembly

Add the following sentence:

When eave vents are installed, baffling of the vent openings shall be provided to deflect the incoming air above the surface of the insulation.

Replace exception number one with the following:

1. Continuously insulated tapered roof assemblies with an average R-value of not less than that specified in Table C402.2 and having not less than R-12.5 at each roof drain location.

23.60.C402.2.4 Thermal resistance of below-grade walls.

Amend section C402.2.4 by adding the following sentence:

In new construction, the minimum required R-value of insulating material shall be installed on the exterior side of the wall.

23.60.C402.2.6 Slabs on grade.

Revise the exception to read as follows:

**Exception:** Where the slab-on-grade floor is greater than 36 inches below the finished exterior grade and the below grade wall is insulated in accordance with section C402.2.4, perimeter insulation is not required.

23.60.C403.2.2 Equipment and system sizing.

Amend section C403.2.2 by adding exception number 3 as follows:

3. Heating equipment may be oversized by up to 25 percent.
23.60.C403.2.4.4  Shutoff damper controls.
Amend section C403.2.4.4 by adding exception number 4 as follows:

4. Motorized dampers shall not be required for exhaust systems where grease, lint, and similar particulates may accumulate on the damper and create a fire hazard.

23.60.C403.2.6  Energy recovery ventilation systems.
Amend the exception by revising condition Number 8 to read as follows:

8. For each system where the largest source of air exiting the building at a single location at the building exterior is less than 75 percent of the design outdoor airflow rate.

Amend the exception by adding condition number 10 as follows:

10. Where the system does not operate continuously and is controlled only to operate under a safety operation such as carbon monoxide exhaust systems in garages.

Amend the exception by adding condition number 11 as follows:

11. Where it is demonstrated that simple economic payback is greater than 20 years. Market value equipment, construction and utility costs at the time of design shall be used to determine economic payback.

23.60.C403.2.7.1.3 High-pressure duct systems.
Amend section C403.2.7.1.3 by deleting the last sentence stating “Documentation shall be furnished by the designer demonstrating…”

23.60.C403.2.8  Piping insulation.
Amend section C403.2.8 by adding exception number 7 as follows:

7. Piping within baseboard radiation assemblies serving the zone requiring conditioning and piping that is intended to serve as a terminal heating device.

23.60.C403.2.10  Air system design and control.
Amend section C403.2.10 by replacing 5 horsepower with 10 horsepower.

23.60.C403.4.3.4  Part load controls.
Amend section C403.4.3.4 by replacing 300,000 Bth/h with 500,000 Btu/h, and adding an exception as follows:

Exception: Where the hydronic system serves domestic hot water generation equipment or other equipment that requires a consistent supply temperature and is not applicable to fluid temperature setback control.
23.60.C404.3 Temperature control.
Delete section C404.3.

23.60.C405.2.1.1 Interior lighting controls
Amend section C405.2.1.1 by adding exception number 3 as follows:

3. Equipment rooms, storerooms, restrooms, and similar common
and/or normally unoccupied spaces that are already controlled by an
occupancy sensor.

23.60.C405.2.1.2 Light reduction controls.
Amend section C405.2.1.2 by revising exception number 3 as follows:

3. Corridors, equipment rooms, storerooms, restrooms, public lobbies,
electrical or mechanical rooms and similar common and/or normally
unoccupied spaces.

Amend section C405.2.1.2 by adding exception number 7 as follows:

7. Areas where HID lighting is utilized as the primary light source.

23.60.C405.2.2 Additional lighting controls.
Amend C405.2.2 by replacing the first sentence with the following:

Provide additional controls in building areas specified in Sections
C405.2.2.1 and C405.2.2.2.

23.60.C405.2.2.1 Automatic time switch control devices.
Amend section C405.2.2.1 by replacing the first sentence with the following:

Occupied areas exceeding 5000 square feet (465 square meters) and
under the control of a single occupant, owner, or tenant shall be equipped
with an automatic control device to shutoff lighting.

23.60.C405.2.2.2 Occupancy sensors.
Amend section C405.2.2.2 by deleting "private offices" from the first sentence.

23.60.C405.2.2.3 Daylighting zone control.
Delete section C405.2.2.3

23.60.C405.5 Interior lighting power requirements (Prescriptive).
Amend section C405.5 by replacing the first sentence with the following:

A building complies with this section if its total connected lighting power
calculated under section C405.5.1 is no greater than 125 percent of the
interior lighting power calculated under section C405.5.2.
23.60.C405.6  Delete this section.

23.60.C405.7  Delete this section.

23.60.C408.2  **Mechanical systems commissioning and completion requirements.**

Revise the exception to read as follows:

**Exception:** Mechanical systems serving buildings smaller than 30,000 square feet or simple mechanical systems covered by Section C403.3 are exempt from the commissioning requirements in this section. These exempt systems shall be tested to ensure that control elements are calibrated, adjusted and in proper working condition.


Delete sections R10[1][2] through R401[09]. Refer to the Anchorage Administrative Code.

23.60.R303.1.4  **Insulation product rating.**

Add the following exception:

**Exception:** A mean testing temperature of 40°F is acceptable for demonstrating compliance with this code.

23.60.R401.3  **Certificate (Mandatory).**

Add the following exception:

**Exception:** A certificate is not required for additions, alterations, renovations, and repairs to an existing building.

23.60. Table R402.1.1  **Insulation And Fenestration Requirements By Component.**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>R-VALUE (MINIMUM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FENESTRATION</td>
<td>3.1</td>
</tr>
<tr>
<td>SKYLIGHT</td>
<td>1.8</td>
</tr>
<tr>
<td>CEILING</td>
<td>49</td>
</tr>
<tr>
<td>WOOD FRAME WALL</td>
<td>21</td>
</tr>
<tr>
<td>MASS WALL</td>
<td>21</td>
</tr>
<tr>
<td>FLOOR</td>
<td>38</td>
</tr>
<tr>
<td>BASEMENT WALL</td>
<td>15 CONTINUOUS or 19 CAVITY</td>
</tr>
<tr>
<td>SLAB</td>
<td>10 FOR 36 INCHES VERTICALLY ALONG PERIMETER</td>
</tr>
<tr>
<td>SLAB, HEATED</td>
<td>10 UNDER ENTIRE SLAB AND FOR 36 INCHES VERTICALLY ALONG PERIMETER</td>
</tr>
<tr>
<td>CRAWLSPACE WALL</td>
<td>15 CONTINUOUS or 19 CAVITY</td>
</tr>
</tbody>
</table>
23.60. Table R402.1.3  Equivalent U-Factors.
Replace TABLE R402.1.3 with the following:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>EQUIVALENT MAXIMUM U-FACTOR OR F-FACTORa</th>
</tr>
</thead>
<tbody>
<tr>
<td>FENESTRATION</td>
<td>U-0.32</td>
</tr>
<tr>
<td>SKYLIGHT</td>
<td>U-0.55</td>
</tr>
<tr>
<td>CEILING</td>
<td>U-0.020</td>
</tr>
<tr>
<td>WOOD FRAME WALL</td>
<td>U-0.057</td>
</tr>
<tr>
<td>MASS WALL</td>
<td>U-0.057</td>
</tr>
<tr>
<td>FLOOR</td>
<td>U-0.027</td>
</tr>
<tr>
<td>BASEMENT WALL</td>
<td>U-0.067</td>
</tr>
<tr>
<td>SLAB</td>
<td>F-0.51</td>
</tr>
<tr>
<td>SLAB, HEATED</td>
<td>F-0.55</td>
</tr>
<tr>
<td>CRAWLSPACE WALL</td>
<td>U-0.067</td>
</tr>
</tbody>
</table>

a Use of opaque assembly U-factors, C-factors and F-factors from ANSI/ASHRAE/IESNA 90.1 Appendix A is permitted, provided the construction complies with the applicable construction details from ANSI/ASHRAE/IESNA 90.1 Appendix A.

23.60.R402.2.1  Ceilings with attics.
Amend section R402.2.1 by adding the following exception:

**Exception:** R-38 fiberglass blanket insulation may be compressed at the eave to provide a 1.5 inch air space when installed between wood trusses having a minimum heel height of 11.25 inches.

23.60.R402.2.10  Crawl space walls.
Delete section R402.2.10 Crawl space walls.

23.60.R402.3.7  Glazing limitation.
Add the following section:

**R402.3.7 Glazing limitation.** Glazing shall be limited to 18% of the conditioned floor area.

23.60.R402.4.1.2  Testing.
Amend section R402.4.1.2 by adding the following exception:

**Exception:** Testing is recommended but not required.

23.60.R402.6  Crawl space.
Add the following section:

**R402.6 Crawl space (mandatory).**
R402.6.1 Unconditioned crawl space. When a crawl space is ventilated to the exterior by natural means in accordance with IRC section R408.2, the floor separating the crawl space from the living area shall be insulated in accordance with section R402.1. The crawl space shall not be heated.

R402.6.2 Conditioned crawl space. When a crawl space is ventilated by mechanical means in accordance with IRC section R408.3, the crawl space walls shall be insulated in accordance with section R402.1. The floor of the crawl space shall be covered in accordance with IRC section R408.3.

23.60.R402.7 Ventilation
Add the following section:

R402.7 Ventilation (Mandatory). Ventilation shall comply with ANSI/ASHRAE Standard 62.2-2010, including Addenda. Where there are conflicts between an adopted code and this standard, the adopted code shall apply.

23.60.R403.2.3 Building Cavities (Mandatory).
Delete section R403.2.3. Building cavities may be used as plenums in accordance with the IRC or IMC, as applicable.

23.60.R403.3 Mechanical system piping insulation.
Insert the following exception under section R403.3:

Exception: piping installed within the building thermal envelope.

23.60.R403.6 Equipment sizing (Mandatory).
Amend section R403.6 by adding the following:

Equipment shall be sized to meet the load and over sizing shall not exceed 125 percent. When this is not feasible given the discrete size options available, equipment delivering the smallest output while satisfying the calculated load shall be used.

23.60.R405.3 Performance based compliance.
Add the following exception:

Exception: Compliance may be demonstrated through a home energy rating under a program approved by the Alaska Housing Finance Corporation (AHFC) that meets the following:

1. A minimum five-star rating is required.
2. The maximum air infiltration rate shall not exceed four air changes per hour at 50 pascals pressure difference.
3. The compliance rating shall be performed by a person authorized by AHFC.
Compliance with sections R405.4 through R405.6 is not required.

CHAPTER 23.65 LOCAL AMENDMENTS TO THE INTERNATIONAL EXISTING BUILDING CODE 2012 EDITION

Sections
23.65.103-117 Delete sections.
23.65.402.3 Existing structural elements carrying gravity load.
23.65.402.4 Existing structural elements carrying lateral load.
23.65.403.3 Existing structural elements carrying gravity load.
23.65.409.1 Conformance.
23.65.606.2.2 Substantial structural damage to vertical elements of the lateral force resisting system.
23.65.606.2.3.1 Lateral force-resisting elements.
23.65.706.2 Addition or replacement of roofing or replacement of equipment.
23.65.706.3.2 Roof diaphragms resisting wind loads in high-wind regions.
23.65.804.2 Automatic sprinkler systems.
23.65.805.4.4 Panic hardware.
23.65.807.4 Existing structural elements carrying gravity load.
23.65.1007.1 Gravity loads.
23.65.1103.2 Additional gravity loads.
23.65.1103.3 Lateral force-resisting system.
23.65.1103.4 Snow drift loads.
23.65.1302.5 Snow loads.
23.65.1401.2 Applicability.

The amendments to the 2012 Edition of the International Existing Building Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the International Existing Building Code to which the amendments refer.

23.65.103-117 Delete sections.
Delete IEBC sections 103 through 117. Refer to the Anchorage Administrative Code.

23.65.402.3 Existing structural elements carrying gravity load.
Replace “5 percent” in the first sentence with “10 percent”.

23.65.402.4 Existing structural elements carrying lateral load.
Number the exception 1 and add the following exception 2:
2. Additions to one- and two-family detached structures are not required to be structurally independent from the existing structure where all of the following conditions are met:

1. The occupancy of the addition is the same as the existing, or is a Group U occupancy;
2. The existing structure is not needed to support lateral loads from the addition other than at the common wall(s);
3. The common wall(s) can support the combined loads from the existing and new structures; and
4. The addition does not reduce the capacity of any existing lateral element.

23.65.403.3  Existing structural elements carrying gravity load. Replace “5 percent” in the first sentence with “10 percent”.

23.65.409.1  Conformance. Delete the section and replace with the following:

Structures moved into or within the Municipality shall comply with the provisions of Chapter 12.

23.65.606.2.2  Substantial structural damage to vertical elements of the lateral force resisting system. Delete Exception 2 in its entirety.

23.65.606.2.3.1  Lateral force-resisting elements. Delete Exception 2 in its entirety.

23.65.706.2  Addition or replacement of roofing or replacement of equipment. Replace “5 percent” in Exceptions 1 and 2 with “10 percent”.

23.65.706.3.2  Roof diaphragms resisting wind loads in high-wind regions. Add the following exception:

Exception: Buildings constructed after 1984 need not comply with this section.

23.65.807.4  Existing structural elements carrying gravity load. Replace “5 percent” in Exception 1 with “10 percent”.

23.65.1007.1  Gravity loads. Replace “5 percent” in the exception with “10 percent”.

23.65.1103.2  Additional gravity loads. Replace “5 percent” in Exception 1 with “10 percent”.
23.65.1103.3  Lateral force-resisting system.
Add exception#3 to read as follows:

3. Additions to one- and two-family detached structures are not required to be structurally independent from the existing structure where all of the following conditions are met:

1. The occupancy of the addition is the same as the existing, or is a Group U occupancy;
2. The existing structure is not needed to support lateral loads from the addition other than at the common wall(s);
3. The common wall(s) can support the combined loads from the existing and new structures; and
4. The addition does not reduce the capacity of any existing lateral element.

23.65.1103.4  Snow drift loads.
Replace “5 percent” in Exception 1 with “10 percent”.

23.65.1302.5  Snow loads.
Replace “5 percent” in the exception with “10 percent”.

23.65.804.2  Automatic sprinkler systems.
Amend section 804.2.2 by deleting the reference to Group E occupancies.
Add the following subsection:

23.65.804.2.2.2 Group E Occupancy: When required by the International Fire Code, an automatic sprinkler system shall be installed throughout all buildings containing a group E occupancy.

23.65.805.4.4  Panic hardware.
Amend section 805.4.4 by replacing “greater than 100” with “of 50 or more”.

23.65.807.4  Existing structural elements carrying gravity load.
Replace “5 percent” in Exception 1 with “10 percent”.

23.65.1007.1  Gravity loads.
Replace “5 percent” in the exception with “10 percent”.

23.65.1103.2  Additional gravity loads.
Replace “5 percent” in Exception number one with “10 percent”.

23.65.1103.3  Voluntary addition of structural elements to improve the lateral force-resisting system.
Add the following exception:

3. Additions to one- and two-family detached structures are not required to be structurally independent from the existing structure where all of the following conditions are met:
1. The occupancy of the addition is the same as the existing, or is a Group U occupancy;
2. The existing structure is not needed to support lateral loads from the addition other than at the common wall(s);
3. The common wall(s) can support the combined loads from the existing and new structures.
4. The addition does not reduce the capacity of any existing lateral element.

23.65.1103.4  Snow drift loads.
Replace “5 percent” in Exception number one with “10 percent”.

23.65.1302.5  Snow loads.
Replace “5 percent” in the exception with “10 percent”.

23.65.1401.2  Applicability.
Insert the date “June 9, 1948” in the space provided.

CHAPTER 23.70  ABATEMENT OF DANGEROUS BUILDINGS 2012 EDITION

Sections
23.70.701  Purpose and scope.
23.70.702  Definitions.
23.70.703  Administration.
23.70.704  Notices and orders.
23.70.705  Notice to vacate.
23.70.706  Appeal.
23.70.707  Performance of work, repair, demolition or removal by owner.
23.70.708  Enforcement by code official.
23.70.709  Emergency abatement by code official.
23.70.710  Recovery of costs by code official.

23.70.701  Purpose and scope.

23.70.701.1  Purpose.
1. It is the purpose of this chapter to provide a just, equitable and practicable method, to be cumulative with and in addition to any other remedy provided by the codes, or otherwise available by law, whereby buildings or structures which from any cause endanger the life, limb, health, morals, property, safety or welfare of the general public or their occupants shall be required to be repaired, demolished or removed.

2. The purpose of this chapter is not to create or otherwise establish or designate any particular class or group of persons who shall or should be especially protected or benefited by the terms of this chapter.
23.70.701.2 Scope. The provisions of this chapter shall apply to all dangerous buildings or structures, as defined in section 702, now in existence or which may hereafter become dangerous in this Municipality, whether located within or outside of the Building Safety Service Area (BSSA).

23.70.701.3 Abatement of dangerous building standards. All buildings or structures required to be repaired under the provisions of this chapter shall be subject to the provisions of the technical codes as adopted by the Municipality of Anchorage.

23.70.702 Definitions.

23.70.702.1 General. For the purpose of this chapter, certain terms, phrases, words and their derivatives shall be construed as specified in either this chapter or as specified in the code. Where terms are not defined, they shall have the ordinary accepted meanings within the context with which they are used. Webster’s Dictionary shall be construed as providing ordinary accepted meanings. Words used in the singular include the plural and the plural the singular. Words used in the masculine gender include the feminine and the feminine the masculine.

Abatement - the code compliant corrections of all conditions or defects described in section 702, as confirmed by the code official.

Beyond economic feasibility to repair - when the estimated cost of repair exceeds the estimated replacement cost of the entire structure.

Code or codes - the relevant codes, as adopted by the Municipality.

Code official - the building official or designee.

Dangerous building - for the purpose of this chapter, any building or structure with any or all of the conditions or defects hereinafter described to such an extent the condition endangers life, limb, health, morals, property, safety, or welfare of the general public or its occupants.

1. Whenever any door, aisle, passageway, stairway or other means of exit is not of sufficient width or size or is not so arranged as to provide safe and adequate means of exit in case of fire or panic.

2. Whenever the walking surface of any aisle, passageway, stairway or other means of exit is so warped, worn, loose, torn or otherwise unsafe as to not provide safe and adequate means of exit in case of fire or panic.

3. Whenever the stress in any materials, member or portion thereof, due to all dead and live loads, is more than one and one half times the working stress or stresses allowed in the code for buildings of similar structure, purpose or location.
4. Whenever any portion thereof has been damaged by fire, earthquake, wind, flood or by any other cause, to such an extent the structural strength or stability thereof is materially less than before such catastrophe and is less than the minimum requirements of the code for buildings of similar structure, purpose or location.

5. Whenever any portion or member or appurtenance thereof is likely to fail, or to become detached or dislodged, or to collapse and thereby injure persons or damage property.

6. Whenever any portion of a building or structure, or any member, appurtenance or ornamentation of the exterior thereof is not of sufficient strength or stability, or is not so anchored, attached or fastened in place so as to be capable of resisting a wind pressure of one half of that specified in the code for such buildings or structures.

7. Whenever any portion thereof has wracked, warped, buckled or settled to such an extent that walls or other structural portions have materially less resistance to winds or earthquakes than is required in the case of similar construction.

8. Whenever the building or structure, or any portion thereof, because of:
   a. Dilapidation, deterioration or decay;
   b. Faulty construction;
   c. The removal, movement or instability of any portion of the ground necessary for the purpose of supporting such building or structure;
   d. The deterioration, decay or inadequacy of its foundation; or
   e. Any other cause is likely to partially or completely collapse.

9. Whenever, for any reason, the building or structure, or any portion thereof, is unsafe for the purpose of which it is being used.

10. Whenever the exterior walls or other vertical structural members list, lean or buckle to such an extent a plumb line passing through the center of gravity does not fall inside the middle one-third of the base.

11. Whenever the building or structure, exclusive of the foundation, shows thirty-three (33) percent or more damage or deterioration of its supporting member or members, or fifty (50) percent damage or deterioration of its non-supporting members, enclosing or outside walls or coverings.

12. Whenever the building or structure has been so damaged by fire, wind, earthquake or flood, or has become so dilapidated or deteriorated as to become
   a. An attractive nuisance to children;
   b. A harbor for vagrants, criminals or immoral persons; or
   c. Enables persons to resort thereto for the purpose of committing unlawful or immoral acts.
13. Whenever any building or structure has been constructed, exists or is maintained in violation of any specific requirement or prohibition applicable to such building or structure provided by the building regulations of this Municipality, as specified in the code, or of any law or ordinance of this state or Municipality relating to the condition, location or structure of buildings.

14. Whenever any building or structure which, whether or not erected in accordance with all applicable laws and ordinances, has in any non-supporting part, member or portion less than fifty (50) percent, or in any supporting part, member or portion, less than sixty-six (66) percent of:
   a. Strength;
   b. Fire-resisting qualities or characteristics; or
   c. Weather-resisting qualities or characteristics required by law in the case of a newly constructed building or structure of like area, height and occupancy in the same location.
   d. This subsection does not apply to strength required to resist seismic loads.

15. Whenever a building or structure, used or intended to be used for dwelling purposes, because of inadequate maintenance, dilapidation, decay, damage, faulty construction or arrangement, inadequate light, air or sanitation facilities, or otherwise, is determined by the code official to be unsanitary, unfit for human occupancy or in such a condition it is likely to cause sickness or disease.

16. Whenever any building or structure, because of obsolescence, dilapidated condition, deterioration, damage, inadequate exits, lack of sufficient fire-resistive construction, faulty electric wiring, gas connections or heating apparatus, or other cause, is determined by the code official to be a fire hazard.

17. Whenever any building or structure is in such a condition as to constitute a public nuisance known to the common law or in equity jurisprudence.

18. Whenever any portion of a building or structure remains on a site after the demolition or destruction of the building or structure or whenever any building or structure is abandoned for a period in excess of six months so as to constitute such building or structure or portion thereof an attractive nuisance or hazard to the public.

**Habitual** - customarily, or by frequent practice or use; does not mean entirely or exclusively.

**Imminent or immediate** - near at hand, or if left unattended to on the point of happening; an observable structural, electrical, mechanical or plumbing failure to the extent a reasonable person may believe it poses a serious threat to life and safety.

**Record owner** - any legal interest of record disclosed from official
Unfit for human occupancy - a building or structure is unfit for human occupancy whenever the code official finds such structure is unsafe, unlawful or because of the degree to which the building or structure is in disrepair or lacks maintenance, is unsanitary, vermin or rat infested, contains filth and contamination, or lacks ventilation, illumination, sanitary or heating facilities or other essential equipment required by this code, or because the location of the building or structure constitutes a hazard to the occupants of the building or structure or to the public.

Unlawful building or structure - is one found in whole or in part to be occupied by more persons than permitted under this code, or was erected, altered or occupied contrary to law.

Unsafe building or structure - is one found to be dangerous to the life, health, property or safety of the public or the occupants of the building or structure by not providing the minimum safeguards to protect or warn occupants in the event of fire, or because such building or structure contains unsafe equipment or is so damaged, decayed, dilapidated, structurally unsafe or of such faulty construction or unstable foundation, that partial or complete collapse is possible.

Unsafe equipment - includes any boiler, heating equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment on the premises or within the building or structure in such disrepair or condition that such equipment is a hazard to life, health, property or safety of the public or occupants of the premises, building or structure.

23.70.703 Administration.

23.70.703.1 Authority.
1. The code official is hereby authorized to enforce the provisions of this chapter.
2. The code official shall have the power to render interpretations of this chapter and to adopt and enforce rules and supplemental regulations in order to clarify the application of its provisions. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this chapter.

23.70.703.2 Extension of time to perform work. Upon receipt of a written request from the person required to conform to a notice and order issued under Section 23.70.704 and by agreement of such person to comply with the notice and order if allowed additional time, the code official may grant an extension of time, not to exceed an additional one hundred twenty (120) days, within which to complete said repair, demolition or removal, if the code official determines such an extension of time does not create or perpetuate a situation.
imminently dangerous to life or property. The code official's authority
to extend time is limited to the physical repair, demolition or removal of
the building or structure and shall not in any way affect the time to
appeal the notice and order.

23.70.703.3 Inspections. The health officer, the fire marshal and the
code official are hereby authorized to make such inspections and take
such actions as may be required to enforce the provisions of this
chapter.

23.70.703.4 Right of entry. When it is necessary to make an
inspection to enforce the provisions of this chapter, or when the code
official or designee has reasonable cause to believe there exists in a
building or structure a condition which is contrary to or in violation of
this chapter and makes the building or structure dangerous or
unlawful, the code official may enter the building or structure at
reasonable times to inspect or to perform the duties imposed by this
chapter, provided if such building or structure be occupied that
credentials be presented to the occupant and entry requested. If such
building or structure is unoccupied, the code official shall first make a
reasonable effort to locate the owner or other persons having charge
or control of the building or structure and request entry. If entry is
refused, the code official shall have recourse to the remedies provided
by law to secure entry.

23.70.703.5 Abatement of dangerous buildings. All buildings or
structures or portions thereof determined after inspection by the code
official to be dangerous or unlawful as defined in this chapter are
hereby declared to be public nuisances and shall be abated by repair,
demolition, or removal in accordance with this code.

23.70.703.6 Violations. It shall be unlawful for any person, firm or
corporation to erect, construct, enlarge, alter, repair, move, improve,
remove, convert or demolish, equip, use, occupy or maintain any
building or structure or cause or permit the same to be done in
violation of this chapter.

23.70.703.7 Board of building regulation examiners and appeals.
Orders, decisions or determinations made by the code official relative
to the application and interpretations of this chapter may be appealed
to the board of building regulation examiners and appeals (building
board), established under AMC 4.40.030 and defined in
AMC 23.10.103.4. Appeals to the building board shall be processed in
accordance with the provisions contained in section 706 of this
chapter.

23.70.704 Notices and orders.

23.70.704.1 Commencement of proceedings. When the code
official has inspected a building or structure and determined it is a
dangerous or unlawful building, the code official shall commence proceedings to cause the repair, demolition, or removal of the building or structure.

23.70.704.2 Notice of violation. All violations noted by the code official shall be listed on the posted notice of violation. A notice of violation shall be posted at the location of the building or structure determined by inspection to have a violation. The code official shall give the owner three (3) business days to meet with the code official to determine the extent of the repair, demolition or removal necessary. After the three (3) business days, the code official shall determine if a notice and order shall be issued.

23.70.704.3 Notice and order. The code official shall issue a notice and order directed to the record owner of the building or structure. The notice and order shall contain:

1. The street address and a legal description sufficient for identification of the property upon which the building or structure is located.

2. A statement the code official found the building or structure to be dangerous or unlawful with a brief and concise description of the conditions found to render the building or structure dangerous or unlawful under the provisions of section 702.

3. A statement of the action required to be taken as determined by:
   a. If the code official has determined the building or structure must be repaired or removed, the order shall require all required permits be secured therefore and the work physically commenced within sixty (60) days from the date of the order. The repairs shall be completed within such time as the code official shall determine is reasonable under all the circumstances and specified in the Notice and Order.
   b. If the code official has determined the building or structure must be vacated, the order shall require the building or structure shall be vacated within a time certain from the date of the order as determined by the code official to be reasonable and specified in the Notice and Order. The notice to vacate shall be posted as per section 705.
   c. If the code official has determined the building or structure must be demolished, the demolition shall be completed within such time as the code official determines is reasonable and shall be specified on the Notice and Order.

4. Statements advising if any required repair or demolition work is not commenced within the time specified, the code official:
   a. May order the Notice to Vacate as per section 705, and
b. May proceed with causing the repair, demolition or removal as per section 708.

5. Statements advising:
   a. The notice and order may be appealed to the board of appeals as per section 706; and
   b. Failure to appeal shall constitute a waiver of all right to an administrative hearing and determination of the matter.

23.70.704.4 Service of notice and order. The notice and order, and any amended or supplemental notice and order, shall be served upon the record owner and posted on the property. The failure of the code official to serve any person required herein to be served shall not invalidate any proceedings hereunder as to any other person duly served or relieve any such person from any duty or obligation imposed by the provisions of this section.

23.70.704.5 Method of service.
1. Such notice shall be deemed to be properly served if a copy thereof is:
   a. Delivered personally;
   b. Sent by certified or first-class mail addressed to the last known address, return receipt requested; or
   c. Posted in a conspicuous place in or about the structure affected by such notice.

23.70.704.6 Recordation of notice and order.
1. If the order has not been complied with in the time specified therein, and no appeal has been properly and timely filed, the code official shall file in the Anchorage District Recorder's Office a certificate describing the property and certifying:
   a. The building or structure is a dangerous or unlawful building; and
   b. The owner has been so notified.
2. When the corrections ordered have been completed or the building or structure demolished so it no longer exists as a dangerous or unlawful building or structure on the property described in the certificate, the code official shall file a new certificate with the Anchorage District Recorder certifying the building or structure has been removed, demolished or all required repairs have been made so the building or structure is no longer dangerous or unlawful.

23.70.704.7 Transfer of ownership. It shall be unlawful for the owner of any building or structure who has received a notice and order or notice of violation to sell, transfer, mortgage, lease or otherwise dispose of such building or structure to another until the provisions of the notice and order or notice of violation have been complied with, or until such owner shall first furnish the grantee, transferee, mortgagee or lessee a true copy of any notice and order or notice of violation.
issued by the code official and shall furnish the code official a signed and notarized statement from the grantee, transferee, mortgagee or lessee, acknowledging the receipt of such notice and order or notice of violation fully accepting the responsibility without condition for making corrections or repairs required by such notice and order or notice of violation.

23.70.705 Notice to vacate.

23.70.705.1 Notice to vacate. The code official may post a building or structure with a notice to vacate if the building or structure is determined by the code official to contain an imminent or immediate life safety violation or condition. A notice to vacate shall be served under the same requirements for a notice and order as section 704.

23.70.705.2 Posting. Every notice to vacate shall, in addition to being served as provided in section 705.1, be posted at or upon each exit of the building or structure and shall be in substantially the following form:

23.70.705.3 No occupancy compliance. Whenever such notice is posted, the code official shall include a notification thereof in the notice and order issued under section 704, reciting the emergency and specifying the conditions which necessitate the posting. No person shall remain in or enter any building or structure so posted, except entry may be made to repair, demolish or remove such building or structure under permit. No person shall remove or deface any such notice after it is posted until the required repairs, demolition or removal are completed and a certificate of occupancy issued pursuant to the provisions of the code. The code official may assess fines as per 23.10. Table 3-M for each building code violation and the hourly rate for the code officials time as per the code abatement fee for failure to comply.

23.70.705.4 Code compliance inspection. All buildings or structures posted with a notice to vacate may be required to have a code compliance inspection performed before any permit for repair or removal is issued.

23.70.706 Appeal.

23.70.706.1 Form of appeal. Any person entitled to service under sections 704 or 705 may appeal any notice and order or any action of the code official under this chapter by submitting an application and the filing fee for an appeal to the board of building regulation examiners and appeals (building board) at the office of the code official. The appeal shall be filed within thirty (30) days from the date of the service of such order or action of the code official; provided, however, if the building or structure is in such condition as to make it immediately dangerous to the life, limb, health, morals, property, safety
or welfare of the general public or their occupants and is ordered vacated and is posted in accordance with section 705, such appeal shall be filed within ten (10) days from the date of the service of the notice and order of the code official.

23.70.706.2 Processing of appeal. Upon receipt of any appeal filed pursuant to this section, the code official shall present it at the next regular or special meeting of the building board.

23.70.706.3 Scheduling and noticing appeal for hearings. As soon as practicable after receiving the written appeal, the secretary to the building board shall fix a date, time and place for the hearing of the appeal by the building board. Such date shall not be less than ten (10) days nor more than sixty (60) days from the date the appeal was filed with the code official. Written notice of the time and place of the hearing shall be given at least ten (10) days prior to the date of the hearing to each appellant by the secretary of the building board either by causing a copy of such notice to be delivered to the appellant personally or by mailing a copy thereof, postage prepaid, addressed to the appellant at the address shown on the appeal.

23.70.706.4 Effect of failure to appeal. Failure of any person to file an appeal in accordance with the provisions of section 706 shall constitute a waiver of the right to an administrative hearing and adjudication of the notice and order or any portion thereof.

23.70.706.5 Scope of hearing of appeal. Only those matters or issues specifically raised in the notice and order or actions by any persons with authority under this chapter shall be considered in the appeal hearing.

23.70.706.6 Staying of order under appeal. Except for notice to vacate order made pursuant to section 705, enforcement of any notice and order of the code official issued under this chapter shall be stayed during the appeal there from which is properly and timely filed.

23.70.707 Performance of work, repair, demolition or removal by owner.

23.70.707.1 Repair, demolition or removal by owner. The following standards shall be followed by the code official in allowing the owner to complete the repair, demolition or removal of any dangerous building or structure:

1. Any building or structure declared a dangerous building or structure under this chapter shall be made to comply by the owner with the following:
   a. The building or structure shall be repaired in accordance with the code applicable to the type of
substandard conditions requiring repair. All work shall be permitted and inspected according to the code; or

b. The building or structure shall be demolished at the option of the owner. A demolition permit shall be obtained prior to the work being performed; or

c. The building or structure shall be removed at the option of the owner. If building or structure is to be moved to another location within the Municipality, a code compliance inspection shall be performed prior to the removal.

23.70.707.2 Securing a vacated building against casual access/ingress. Any building or structure posted with a Notice to Vacate under Section 23.70.705 shall be secured against casual access or ingress in a manner satisfactory to the building official. Measures to secure may include: locks, covering doors and windows with plywood, fencing, and the like.

23.70.708 Enforcement by code official.

23.70.708.1 General. After any notice and order, board of appeals decision, contract agreement, or extension has been finalized, no person to whom any such order is directed shall fail, neglect, or refuse to obey any such order.

23.70.708.2 Failure to obey order. If, after any notice and order, board of appeals decision, contract agreement, or extension has been made final, the person to whom such order is directed shall fail, neglect or refuse to comply with such order, the code official may institute any appropriate action to abate such building or structure as a public nuisance.

23.70.708.3 Failure to commence work.

1. Whenever the required repair, demolition or removal of building or structure is not commenced within time specified under the notice and order, appeals board action, contract agreement or extension the following becomes effective:

a. The code official shall cause the building or structure described in such notice and order to be vacated as per section 705.

b. No person shall remove or deface any such notice so posted until the repairs, demolition or removal ordered by the code official are completed and a certificate of occupancy issued pursuant to the provisions of this code.

c. The code official may, in addition to any other remedy provided herein, cause the building or structure to be repaired, demolished or removed according to this chapter. The cost of any such repairs, demolition, or removals shall be recovered in the manner provided in this chapter.
23.70.708.4 **Personal property.** After reasonable notice and prior to the time of repair, demolition or removal, the code official has the authority to enter the dangerous building or structure to make an inspection for any personal property of value abandoned on the premises. If such property is discovered, an inventory shall be taken and made part of the case file. If the owner fails to remove the discovered property prior to the demolition, the owner may redeem said property only under the conditions set forth below. At the time of demolition, the demolition contractor has the authority to remove the inventoried abandoned property from the premises and store the same safely. The record owner of the demolished property may, within thirty (30) days after the date of demolition, redeem the stored property upon the payment of a reasonable storage fee to the demolition contractor. If the record owner of the demolished building or structure fails to redeem the stored property, it shall become the property of the demolition contractor who shall have no recourse against the record owner of the demolished building or structure or the Municipality for any storage charges.

23.70.708.5 **Repair, demolition or removal by code official.** When any work, repair or demolition is to be done pursuant to section 708.3, the code official shall cause the required work to be accomplished by personnel of this Municipality or by private contract. All necessary permits shall be obtained prior to any work. If any part of the work is to be accomplished by private contract, standard Municipality contractual procedures shall be followed.

23.70.708.6 **Interference with repair, demolition or removal work prohibited.** No person shall obstruct, impede or interfere with the code official engaged in the work of repairing, demolishing or removing any such building or structure, pursuant to the provisions of this chapter, or in performing any necessary act preliminary to or incidental to such work or authorized or directed pursuant to this chapter.

23.70.709 **Emergency abatement by code official.**

23.70.709.1 **Summary abatement.** The code official, with written approval of the city manager, may abate any public nuisance without notice in an emergency where the lives or safety of the public is endangered and where immediate action is necessary and timely notice cannot be given. All other abatement proceedings, except the necessity and the manner and method of giving notice shall apply to the nuisance summarily abated, including the recovery of the costs of the summary abatement.

23.70.710 **Recovery of costs by code official.**

23.70.710.1 **Responsibility for payment.** The responsibility for payment of the charges for all expenses incurred during abatement by
code official as set forth in this chapter shall rest solely upon the owners of the property upon which the abatement occurred. Owners, as used in this section, includes the record owner upon the date of service of notice and order as served under section 704, jointly and severally with any subsequent owner until all costs assessed under this chapter are paid in full.

23.70.710.2 Enforcement. The Municipality shall have the right to bring suit for the collection of charges for abatement as set forth in this chapter plus costs and attorney’s fees against any or all of the parties responsible for payment.

23.70.710.3 Account of expense.
1. The code official shall cause to be kept an account of the cost, including incidental expenses, incurred by the Municipality in the repair, demolition or removal of any building or structure done pursuant to the provisions of this chapter. Upon the completion of the work for repair, demolition or removal of the building or structure, the code official shall forward one or more bills for collection to the record owner as identified in this chapter, specifying the nature and costs of the work performed. Such costs shall be considered charges against the property and may be collected pursuant to this chapter or through any other legal means.
2. The term "incidental expenses" shall include, but not be limited to, the actual expenses and costs of the Municipality in the preparation of notices, specifications and contracts, overhead for account work, work inspection, and the cost of printing and mailing notices required hereunder.
3. If the bill for collection remains unpaid thirty (30) days after mailing of notice to the record owner(s), the Municipality shall be entitled to late fees on the amount billed from the date of mailing until paid at the rate prescribed by law for delinquent real property taxes. Any payments made or received shall be first applied to accumulated late fees.

23.70.710.4 Lien procedure. Charges for the repair, demolition or removal of any building or structure done pursuant to the provisions of this chapter become a lien upon the real property upon which the building or structure is or was located. The code official shall record a claim of lien at the Anchorage District Recorder's Office. The Lien placed shall meet all Alaska Statutes and municipal codes.

23.70.710.5 Bill to collections. When charges for the repair, demolition or removal of any building or structure remain unpaid after thirty (30) days from the date the code official forwards an invoice for payment to the record owner as identified in this chapter, the code official shall forward the bill to collections as per Municipality policies and procedures.
23.70.710.6 Collection of abatement charges. The lien created herein may be enforced as provided in Alaska Statute. The enforcement of the lien is a cumulative remedy and does not bar the collection of the charges for abatement as provided in section 709.

CHAPTER 23.75 LOCAL AMENDMENTS TO THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) A17.1-2010/CSA B44-10 SAFETY CODE FOR ELEVATORS AND ESCALATORS

The amendments to the 2010 edition of the ASME Safety Code for Elevators and Escalators are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the Safety Code for Elevators and Escalators to which the amendments refer.

Sections
23.75.1.1.4 Effective date.
23.75.1.3 Definitions.
23.75.2.2.2 Design and construction of pits.
23.75.2.2.6 Stop switch in pits.
23.75.2.12.6 Hoistway door unlocking device.
23.75.2.26.1.4.2 Top of car inspection operation.
23.75.2.27.1.1.4 Emergency communications.
23.75.3.19.5 Piping buried in the ground.
23.75.5.3 Private residence elevator machine rooms/spaces and control rooms/spaces.
23.75.5.4 Private residence inclined elevator machine rooms/spaces and control rooms/spaces.
23.75.8.6.1.7.2 Periodic test tags.
23.75.8.6.5.16.5 Category 5 tests of overspeed valves.
23.75.8.7.1.1 Applicability of alteration requirements.
23.75.8.11.1.1.2 Periodic tests.
23.75.8.11.1.3 Periodic inspection and test frequency.

23.75.1.1.4 Effective date.
In 1.1.4-Effective Date, amend by adding the following paragraph:

The effective date for the A17.1-2010 edition will be that which is decided upon by the Municipality of Anchorage (MOA) Assembly. All addenda and supplements published by ASME to the A17.1-2010 shall be adopted and effective on the date recommended by ASME.

23.75.1.3 Definitions.
In 1.3 Definitions, after the definition of elevator personnel, amend by adding the following to the end of the sentence:

, and who have completed or are actively enrolled in a nationally recognized, and Municipality of Anchorage approved training and certification program for elevator personnel.
23.75.2.2  Design and construction of pits.
Revise section 2.2.2.3 by adding the following:

For pits subject to the periodic accumulation of ground water, a permanent drain or sump pump shall be installed. For pits not subject to the periodic accumulation of ground water, the permanent installation of a drain or sump pump is not required, unless required by section 2.2.2.5.

Revise section 2.2.2.5 to read as follows:

Elevators serving 4 or more stories above or 4 or more stories below the level of fire department vehicle access and elevators serving Group I-2 occupancies shall be provided with a gravity drain or sump pump. The level of fire department vehicle access shall be considered the first story. The drain or sump pump shall have the capacity to remove a minimum of 50 gallons per minute per common elevator hoistway or pit. This provision does not apply to existing elevator hoistways.

Add the following sections:

2.2.2.7  Sump pumps serving elevators powered by a standby or emergency generator shall also be powered by the standby or emergency generator.
2.2.2.8  Hydraulic elevator pit drainage shall pass through an oil/water separator, or other approved means shall be employed to prevent the discharge of hydraulic fluid.
2.2.2.9  Discharge shall go into the building sanitary drainage system or to an approved location on the exterior of the building.
2.2.2.10 Discharging into the building sanitary drainage system shall be through an air gap or air break into an approved indirect waste receptor. The indirect waste receptor shall be of such shape and capacity to control splashing or flooding and shall be located where readily accessible for inspection. The sanitary drainage system must be sized in accordance with the plumbing code to accommodate the rate of flow.
2.2.2.11 The discharge point shall be permanently labeled “ELEVATOR PIT DISCHARGE” in letters a minimum of ½ inch in height. Discharge resulting from periodic water accumulation shall not flow over a walking surface and shall not create a nuisance or hazard. Discharge resulting from fire suppression shall not create a hazard.
2.2.2.12 When a sump pump is utilized, a disconnect serving the sump pump circuit shall be installed in the elevator machine room in compliance with NFPA 70 Other Utilization Equipment.
23.75.2.2.6 Stop switch in pits.
In 2.2.6-Stop Switch in Pits, amend by adding the following paragraph to the end of sub-section 2.2.6.2:

The pit stop switch required at approximately 450 mm (18 in.) above the floor level of the landing shall be permitted to be mounted between 40 in. and 60 in. above the floor level of the landing, adjacent to the pit ladder. If this is done, then a second pit stop switch shall be mounted in the pit adjacent to the pit ladder approximately 1 200 mm (47 in.) above the pit floor.

23.75.2.12.6 Hoistway door unlocking device.
In 2.12.6-Hoistway Door Unlocking Device, amend by adding the following sub-section 2.12.6.2.6:

On existing elevators without mechanical access on the hoistway doors, hoistway door unlocking devices shall be installed at the top and bottom landings, per 2.12.6.2.1 through 2.12.6.2.5. It may be provided at other landings for emergency purposes if desired. Elevators with walk in pits may exclude this requirement at the bottom landing.

23.75.2.26.1.4.2 Top of car inspection operation.
In 2.26.1.4.2-Top of Car Inspection Operation, amend by adding the following sub-section 2.26.1.4.2.1:

Existing elevators that do not currently have a car top inspection station on them, and that have automatic or continuous-pressure operation, shall have a continuous-pressure button operating switch mounted on the top of the car for the purpose of operating the car solely from the top of the car. The device shall operate the car at a speed not exceeding 150 fpm (0.76 m/s). The means for transferring the control of the elevator to the top-of-car operating device shall be on the car top and located between the car cross-head and the side of the car nearest the hoistway entrance normally used for access to the car top.

23.75.2.27.1.1.4 Emergency communications.
Amend by changing the language of the first paragraph of 2.27.1.1.4 to the following:

Where the elevator rise is 18 m (60 ft) or more, a two-way voice communication means shall be located in the fire command center. If there is not a fire command center, then it may go adjacent to the main fire alarm panel or adjacent to the main elevator entrance(s) at the primary re-call landing of the building. The two-way voice communication means shall comply with the following requirements:

23.75.3.19.5 Piping buried in the ground.
Amend by adding the following subsection:
3.19.5.3-Existing Hydraulic Elevators with Buried Piping.  
Replacement of controls, pump unit or hydraulic jack requires  
compliance with A17.1-2010, 3.19.5. If compliance with 3.19.5 is not  
possible, piping above the ground, within the building, will be required.

23.75.5.3 Private residence elevator machine rooms/spaces  
and control rooms/spaces.  
Amend the end of Section 5.3 by adding the following sentence:

Machine rooms/spaces and control rooms/spaces for private  
residence elevators shall comply with 2.7, except 2.7.8.4. In 2.7, in  
all code sections where the key security level indicated is Group 1,  
change to Group 4.

23.75.5.4 Private residence inclined elevator machine  
rooms/spaces and control rooms/spaces.  
Amend the end of Section 5.4 by adding the following sentence:

Machine rooms/spaces and control rooms/spaces for private  
residence elevators shall comply with 2.7, except 2.7.8.4. In 2.7, in  
all code sections where the key security level indicated is Group 1,  
change to Group 4.

23.75.8.6.1.7.2 Periodic test tags.  
In 8.6.1.7.2-Periodic Test Tags, replace language with the following:

The appropriate approved Municipality of Anchorage (MOA) A17.1-  
2010 Periodic Test form with the applicable code requirement(s) and  
date(s) performed, and the name of the person or firm performing  
the test, shall be installed in the machine room/space or control  
room/space for all periodic tests. It shall be stored and kept with the  
Maintenance Control Program booklet or folder or stored in a  
separate folder or sleeve to provide protection for the form.

23.75.8.6.5.16.5 Category 5 tests of overspeed valves.  
8.6.5.16.5-Category 5 tests of overspeed valves, amend by adding the  
following language:

For elevators equipped with overspeed valves, the 5 year intervals  
for testing shall be based on the cross head data tag date. The  
intervals for testing shall be in five year increments starting from this  
date (example - If the cross head data tag indicates a date of 7-  
1976, then moving forward in 5 year increments would make the first  
required 5-year test due by 7-2011). In no case shall the test be  
required sooner than 5 years from the date of the overspeed valve  
test tag.

23.75.8.7.1.1 Applicability of alteration requirements.
In 8.7.1.1-Applicability of Alteration Requirements, amend by making the following changes:

1) In the first sentence, replace the word “alteration” with the word “modernization”, and add the following sentence to 8.7.1.1:

For the purposes of this code section, a modernization shall be defined as any controller replacement, or a change in type of Motion or Operation Control, as defined in the definition section of A17.1-2010.

2) In 8.7.1.1(c), remove the words “if adopted by the authority having jurisdiction”.

3) Add an additional subsection, 8.7.1.1(d) which shall read as follows:

If any alteration is performed, regardless of any other requirements of 8.7, the alteration, as a minimum, shall conform to subsection (a) & (b) above.

23.75.8.11.1.2 Periodic tests.
In 8.11.1.2-Periodic Tests, replace language with the following:

The owner or the owner’s authorized agent shall have all of the periodic tests required by 8.6.4, 8.6.5, 8.6.6, 8.6.7 & 8.6.8, performed by elevator personnel as defined in A17.1-2010. All periodic tests required by 8.6.4, 8.6.5, 8.6.6 & 8.6.7 shall be permitted to be witnessed by the elevator personnel. Periodic test results shall be reviewed for compliance by a Municipality of Anchorage (MOA) Elevator Inspector during their periodic inspections required by 8.11.2, 8.11.3 and 8.11.5. The elevator personnel shall record the test results on the approved MOA A17.1-2010 periodic test form. The MOA A17.1-2010 periodic test form shall be placed in the elevator machine room/space or control room/space for review by the MOA Elevator Inspectors during their periodic inspections required by 8.11.2, 8.11.3 and 8.11.5. For Periodic test requirements listed in 8.6.8 (Escalators and Moving Walks), The MOA Elevator Inspector shall be the witness to the tests, on years when periodic inspections are due.

At major modernization acceptance inspections, all Category-1, 3 & 5 tests applicable to a conveyance shall be witnessed by a MOA Elevator Inspector. If non-compliant items are found as a result of this testing, an additional report will be provided to the owner regarding the necessary corrections.

23.75.8.11.1.3 Periodic inspection and test frequency.
In 8.11.1.3-Periodic Inspection and Test Frequency, amend by adding the following paragraph:
The inspection and test intervals for all units covered by A17.1-2010 shall be as noted in Appendix N, Table N-1, except for the following:

1) Change the periodic inspections interval column to 24 months, except for escalators and moving walks which changes to annual (State of Alaska Statute 8ACC 77.025 requires annual inspections for escalators and moving walks).

2) Remove Private residence elevators, and other private residence conveyances, from the periodic inspections interval column.

CHAPTER 23.76 LOCAL AMENDMENTS TO THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) A18.1-2008 SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS.

The amendments to the 2008 edition of the Safety Standard for Platform Lifts and Stairway Chairlifts are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the Safety Standard for Platform Lifts and Stairway Chairlifts to which the amendments refer.

Sections
23.76.10.1.2 Periodic inspections and tests.
23.76.10.2 Routine inspections and tests.

23.76.10.1.2 Periodic inspections and tests.
In 10.1.2-Periodic Inspections and Tests, replace sub-sections 10.1.2.1 through 10.1.2.3 with the following:

The owner or the owner’s authorized agent shall have all of the periodic tests required by 10.3 performed by authorized personnel, as defined in 1.3 of the A18.1-2008. All periodic tests required by 10.3 shall be permitted to be witnessed by the authorized personnel. Periodic test results shall be reviewed for compliance by a Municipality of Anchorage (MOA) Elevator Inspector during their routine inspections required by 10.2. The authorized personnel shall record the test results on the approved MOA A18.1-2008 periodic test form. The MOA A18.1-2008 periodic test form shall be placed on the lower exterior of the lift tower (if the lift is a vertical platform lift), or adjacent to the top or bottom ends of the lift (if the lift is an inclined platform lift or stairway chairlift) for review by the MOA Elevator Inspector during their routine inspections required by 10.2.

23.76.10.2 Routine inspections and tests.
In 10.2-Routine Inspections and Tests, replace subsection 10.2.1-Inspection and Test Periods with the following:
The routine inspections and tests of sections 2, 3 and 4 lifts (lifts installed in locations other than in or at a private residence) shall be made at intervals not longer than 24 months.

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**CHAPTER 23.85 LOCAL AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE 2012 EDITION**

**Sections**
- **23.85.R100** Local amendments to the 2012 International Residential Code.
- **23.85.R100.1** Administrative.
- **23.85.R101.3** Intent.
- **23.85. Table R301.2(1)** Climatic and geographic design criteria.
- **23.85. Figure R301.2(4)A** Basic wind speeds for 50-year mean recurrence interval.
- **23.85.R301.2.1.1** Wind limitations and wind design required.
- **23.85. Table R302.1(1)** Exterior walls.
- **23.85.R302.2** Townhouses.
- **23.85.R302.2.1** Continuity.
- **23.85.R302.2.1.1** Horizontal continuity.
- **23.85.R302.2.1.2** Exterior walls.
- **23.85.R302.2.1.3** Horizontal projecting elements.
- **23.85.R302.2.2** Parapets.
- **23.85.R302.2.4** Structural independence.
- **23.85.R302.2.5** Common wall insulation.
- **23.85.R302.3** Two-family dwellings.
- **23.85.R302.3.2** Common wall insulation.
- **23.85.R302.5.1** Opening protection.
- **23.85. Table R302.6** Dwelling/garage separation.
- **23.85.R303.1** Habitable rooms.
- **23.85.R307** Toilet, bath and shower spaces.
- **23.85.R308.6.9** Testing and labeling.
- **23.85.R310.1** Emergency escape and rescue required.
- **23.85.R313** Automatic fire sprinkler systems.
- **23.85.R315** Carbon monoxide alarms.
- **23.85.R317.1** Location required.
- **23.85.R317.1(5)** Location required.
- **23.85.R317.1.1** Field treatment.
- **23.85.R317.3.1** Fasteners for preservative-treated wood.
- **23.85.R324** Moisture control in insulated assemblies.
- **23.85.R401.1** Application.
- **23.85.R401.3** Drainage.
- **23.85.R401.4** Soil tests.
- **23.85. Table R401.4** Hazard zone.
- **23.85.R403.1** General.
- **23.85. Table R403-16** Reinforced concrete.
- **23.85. Figure R403-25** Typical foundation and footing details.
- **23.85. Figure R403-29** Typical step footing.
- **23.85. Figure R403-31** Typical pony wall for split level.
- **23.85. Figure R403-34** All weather wood foundation.
- **23.85. Figure R403-37** Typical basement foundation wall.
- **23.85. Table R403.1** Footing depths.
- **23.85.R403.1.1** Minimum size.
- **23.85.R403.1.3** Seismic reinforcing.
23.85.R403.1.4.1 Frost protection.
23.85.R403.2 Footings for wood foundations.
23.85. Table R403.3(1) Minimum footing depth and insulation requirements for frost-protected footings in heated buildings.
23.85. Table R403.3(2) Air-freezing index for U.S. locations by county.
23.85.R404.1 Concrete and masonry foundation walls.
23.85.R404.2 Wood foundation walls.
23.85.R404.3 Wood sill plates.
23.85.R404.6 Insulating concrete form (ICF) foundation walls.
23.85.R405.1.1 Precast concrete foundation.
23.85.R406.1 Concrete and masonry foundation dampproofing.
23.85.R406.2 Concrete and masonry foundation waterproofing.
23.85.R406.3 Dampproofing for wood foundations.
23.85.R406.3.2 Below grade moisture barrier.
23.85.R406.4 Precast concrete foundation system dampproofing.
23.85.R407.2 Steel column protection.
23.85.R501.3 Fire protection of floors.
23.85.R506.2.3 Vapor retarder.
23.85.R602.3.2 Top plate.
23.85.R602.6 Drilling and notching of studs.
23.85.R702.7 Vapor retarders.
23.85.R703.2 Water-resistive barrier.
23.85.R703.3.1 Panel siding.
23.85. Table R703.4 Water-resistant siding attachment and minimum thickness.
23.85.R703.8 Flashing.
23.85.R802.2 Design and construction.
23.85.R802.10.1 Truss design drawings.
23.85.R802.10.2 Design.
23.85.R806.1 Ventilation required.
23.85.R806.2 Minimum vent area.
23.85.R806.5 Unvented attic and unvented enclosed rafter assemblies.
23.85.R807.1 Attic access.
23.85.R903.1 General.
23.85.R903.4.2 Snow impact on neighboring lot.
23.85.R905.1.1 Underlayment.
23.85.R905.1.2 Ice barrier.
23.85.R905.2.7 Underlayment application (asphalt shingles).
23.85.R905.2.8.2 Valleys (asphalt shingles).
23.85.R905.2.8.3 Sidewall flashing.
23.85.R905.2.8.5 Drip edge.
23.85.R905.3.3 Underlayment (clay and concrete tile).
23.85.R905.4.3 Underlayment (metal roof shingles).
23.85.R905.5.3 Underlayment (mineral-surfaced roll roofing).
23.85.R905.6.3 Underlayment (slate and slate-type shingles).
23.85.R905.7.3 Underlayment (wood shingles).
23.85.R905.8.3 Underlayment (wood shakes).
23.85.R905.9.1 Slope (built-up roofs).
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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</thead>
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<tr>
<td>23.85.R905.10.5</td>
<td>Underlayment (metal roof panels).</td>
</tr>
<tr>
<td>23.85.R905.14</td>
<td>Sprayed polyurethane foam roofing.</td>
</tr>
<tr>
<td>23.85.N1101.1</td>
<td>Scope.</td>
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<td>23.85.Chapters 12-43.</td>
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<tr>
<td>23.85.Appendix.</td>
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<td>23.85.AE101.1</td>
<td>General.</td>
</tr>
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<td>23.85.AE102.7</td>
<td>Mobile homes, campers, and travel trailers.</td>
</tr>
<tr>
<td>23.85.AE102.7.1</td>
<td>Mobile homes.</td>
</tr>
<tr>
<td>23.85.AE102.7.2</td>
<td>Campers and travel trailers.</td>
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<tr>
<td>23.85.AE201 Definitions.</td>
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<td>23.85.AE301.1</td>
<td>Initial installation.</td>
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<td>23.85.AE301.5</td>
<td>Gas and plumbing service.</td>
</tr>
<tr>
<td>23.85.AE302.4</td>
<td>Who may apply.</td>
</tr>
<tr>
<td>23.85.AE307 Utility service.</td>
<td></td>
</tr>
<tr>
<td>23.85.AE502.3</td>
<td>Footings and foundations.</td>
</tr>
<tr>
<td>23.85.AE502.6</td>
<td>Under-floor clearances-ventilation and access.</td>
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<tr>
<td>23.85.AE503.1</td>
<td>Skirting and permanent perimeter enclosures.</td>
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<tr>
<td>23.85.AE604.1</td>
<td>Ground anchors.</td>
</tr>
</tbody>
</table>

**23.85.R100 Local amendments to the 2012 International Residential Code.**

The amendments to the 2012 International Residential Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the section of the 2012 International Residential Code to which the amendments refers, i.e., 23.85.R310 refers to amendments to Section R310 of the 2012 International Residential Code.

**23.85.R100.1 Administrative.**

Delete Sections R103 through R114. See the Anchorage Administrative Code, Chapter 23.10 for Administrative Provisions, Fees, and Special Inspections.

**23.85.R101.3 Intent.**

Add the following to the end of the paragraph:

The purpose of this code is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this code.

**23.85. Table R301.2(1) Climatic and geographic design criteria.**

Add the following information to Table R301.2(1):

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground snow load</td>
<td>50 PSF Equates to 40 psf roof snow load</td>
</tr>
<tr>
<td>Wind Speed</td>
<td>See 23.85. Figure R301.2(4)A</td>
</tr>
<tr>
<td>Topographic effects</td>
<td>per site</td>
</tr>
<tr>
<td>Seismic Design Category</td>
<td>D2</td>
</tr>
<tr>
<td>Subject to damage from:</td>
<td></td>
</tr>
<tr>
<td>Weathering</td>
<td>Yes, severe</td>
</tr>
<tr>
<td><strong>Frost Line Depth</strong></td>
<td>42&quot; for warm foundation, 60&quot; for cold foundation</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Termite</td>
<td>No</td>
</tr>
<tr>
<td>Winter Design Temperature</td>
<td>-25 deg F</td>
</tr>
<tr>
<td>Ice Barrier Underlayment Required</td>
<td>Yes</td>
</tr>
<tr>
<td>Flood Hazards</td>
<td>Yes, see flood hazard maps</td>
</tr>
<tr>
<td>Air Freezing Index</td>
<td>3500</td>
</tr>
<tr>
<td>Mean Annual Temperature</td>
<td>35°F</td>
</tr>
</tbody>
</table>

[ The remainder of this page intentionally left blank ]
23.85. Figure R301.2(4)A Basic wind speeds for 50-year mean recurrence interval.

Amend by deleting Figure R301.2(4)A and replace with the following:

Anchorage Bowl “Three Second Gust” Wind Zone Map:
23.85.R301.2.1Wind limitations and wind design required.
In Section R301.2.1.1 add item number 3 to the exception:

3. Accessory structures 600 square feet or less, consisting of one-story.

Revise section R301.2.2 to read as follows:
The seismic design category for Anchorage shall be D₂.

Delete sections R301.2.2.1.1, R301.2.2.1.2, and Table R301.2.2.1.1.

23.85. Table R302.1(1) Exterior walls.
Under "Projections" row; revise the 5 to a 3 in the "1 hour on the underside" row and in the "0 hours" row, delete the 5 feet and replace with 3 feet.

Add footnote at the bottom of table: "Projections cannot extend closer than 2’ to the property line."

23.85.R302.2 Townhouses.
In the exception add to the beginning of the paragraph:

If building is not constructed utilizing an approved fire-suppression system, a common 2 hour fire-resistance-rated wall shall be used. If it is constructed with an approved fire-suppression system a common 1-hour...

23.85.R302.2.1 Continuity.
Delete the last sentence in paragraph.

23.85.R302.2.1.1 Horizontal continuity.
Add the following subsection:

R302.2.1.1 Horizontal continuity. The fire resistance rated dwelling unit separation wall or walls shall be continuous from exterior wall to exterior wall and shall terminate at the interior surface of the exterior sheathing or siding.

23.85.R302.2.1.2 Exterior walls.
Add the following subsection:

R302.2.1.2 Exterior walls. Where the fire resistance rated wall assembly separating townhouses intersects the exterior wall, an (assumed) imaginary lot line shall extend outward from the intersection. The location of the imaginary lot line in relation to the exterior walls shall be such that the exterior wall fire resistance rating and opening protection meet the requirements set forth in section R302.1. Where the exterior walls on each side of the townhouses separation wall form an angle equal to or greater than 180 degrees, exterior wall and opening protection is not required.

23.85.R302.2.1.3 Horizontal projecting elements.
Add the following subsection:
R302.2.1.3 Horizontal projecting elements. The fire resistance rated dwelling unit separation wall or walls shall extend to the outer edge of horizontal projecting elements such as balconies, roof overhangs, canopies, marquees, and similar projections that are within 4 feet of the separation wall.

Exceptions:
1. Horizontal projecting elements without concealed spaces.
2. Noncombustible horizontal projecting elements.

23.85.R302.2.2 Parapets.
Add the following sentence to the exception:
The 4 foot dimension shall be measured from the centerline of the townhouse separation.

23.85.R302.2.4 Structural independence.
In exception #5, remove the wording "1-hour".

Add to the end of the sentence in exception #5:
"provided the wall does not support floor or roof loads."

23.85.R302.2.5 Common wall insulation.
Add the following new section:
R302.2.5 Common wall insulation. The dwelling unit separation wall shall be fireblocked at ceiling line and insulated in the attic directly above the fireblocking to the minimum required attic R-value.

23.85.R302.3 Two-family dwellings.
Delete exception 2 and add the following exception in its place:
2. A one-hour fire-resistive separation shall not be required for an Accessory Dwelling Unit (ADU), as defined under MOA Title 21.

23.85.R302.3.2 Common wall insulation.
Add new section:
R302.3.2 Common wall insulation. The dwelling unit separation wall shall be fireblocked at ceiling line and insulated in the attic directly above the fireblocking to the minimum required attic R-value.

23.85.R302.5.1 Opening protection.
Add to the end of the paragraph:
Access to the crawlspace from garage, shall have the same door as mentioned above. All doors shall have smoke gaskets at top and sides of doors and adjustable threshold or sweep. Access from garage to crawlspace shall be in a wall and not through a floor.

23.85. Table R302.6 Dwelling/garage separation.
Amend table by replacing all references to ½ inch gypsum board with 5/8 inch Type X gypsum board.
23.85.R303.1 Habitable rooms.
Under exceptions add item 4:
   4. Theater rooms are exempt from ventilation requirements of this section.

23.85.R307 Toilet, bath and shower spaces.
Delete section R307. Reference the adopted plumbing code.

23.85.R308.6.9 Testing and labeling.
Add sentence to end of paragraph:
   In lieu of labels adhered to skylights, literature provided on site is acceptable to demonstrate skylights meet the criteria of this section.

23.85.R310.1 Emergency escape and rescue required.
Number exception in the IRC code 1, add exception number 2:
   2. Where windows are provided as a means of escape or rescue in a basement, the sill height shall be measured from the finished floor to the bottom of the clear opening and shall be no more than forty-eight (48) inches above the finished floor.

23.85.R313 Automatic fire sprinkler systems.
Delete section R313 AUTOMATIC FIRE SPRINKLER SYSTEMS.

When a non-required sprinkler system is desired, plans shall be submitted for review and approved for compliance by Fire Prevention.

23.85.R315 Carbon monoxide alarms.
Revise section R315 to read as follows:
   R315.1 Carbon monoxide alarms. At least one carbon monoxide alarm shall be installed on each floor level. If a floor level contains bedrooms, at least one alarm shall be located in the immediate vicinity but outside of the bedrooms. Carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed and maintained in accordance with manufacturer’s instructions. Combination carbon monoxide/smoke detectors are acceptable as long as they meet all requirements.

   Exceptions:
   1. Carbon monoxide alarms are not required in dwelling units that have no combustion appliances and that do not have an attached garage.
   2. Carbon monoxide alarms are not required in dwelling units that have only direct vent combustion appliances and that do not have an attached garage.

   R315.1.1 Interconnection. In new construction, carbon monoxide detectors shall be interconnected in such a manner that the actuation of one alarm activates all of the alarms in the individual dwelling unit.

   R315.1.2 Power source. In new construction, carbon monoxide detectors shall receive their primary power from the building wiring where such wiring
is served from a commercial source and shall be equipped with a battery back-up. Wiring shall be permanent and without disconnecting switch other than those required for overcurrent protection. In existing construction, carbon monoxide detectors shall be permitted to be battery powered or cord-and-plug type with battery back-up.

23.85.R317.1  Location required.
Amend first sentence by deleting the words “naturally durable wood or”.

23.85.R317.1(5)  Location required.
Add the following sentence to the end of item number 5:
Measures should be taken to mitigate frost heaving if wood siding or sheathing has less than six inch clearance.

Add the following sentence to the end of the paragraph:
This requirement only applies to exposed glue-laminated timbers in section R317.1.5 and AWW foundation walls.

23.85.R317.3.1  Fasteners for preservative-treated wood.
Add Exception 4:
Quarter inch (¼”) steel (red iron) designed brackets, may be used with treated lumber providing a 10 mil polyethylene (2 layers) plastic barrier is placed between surface of wood and surface of steel.

23.85.R324  Moisture control in insulated assemblies.
Amend Chapter 3 by adding the following section:

SECTION R324
MOISTURE CONTROL IN INSULATED ASSEMBLIES

R324.1  Moisture control strategies.  The building design shall incorporate both interior and exterior moisture control strategies to prevent the accumulation of moisture within insulated assemblies. Exterior moisture control shall comply with Chapters 7 and 9. Interior moisture control shall comply with section R324.1.1. Should insulated assemblies become wet or start out wet, the design strategy shall allow the assembly to dry to either the exterior or interior. Materials shall be allowed to dry prior to enclosure.

R324.1.1  Interior moisture control in insulated assemblies.  Methods to control moisture accumulation within insulated assemblies from the building interior shall address both vapor diffusion and air leakage. Vapor diffusion shall be controlled by the installation of a class I or class II vapor retarder on the warm-in-winter side of the insulation. The vapor retarder shall be continuous and seams shall be lapped 6 inches minimum. Penetrations and seams shall be sealed with approved vapor retarder compatible tape or sealant to control air leakage. Where a vapor retarder is located in dropped ceilings adjacent to attics, the vapor retarder continuity shall be maintained above the
dropped ceiling and shall be fully covered with a solid material such as
gypsum wallboard, plywood, oriented strand board or other similar
material.

Exceptions:
1. A vapor retarder is not required in construction where moisture or
   its freezing will not damage materials.
2. A vapor retarder is not required on crawlspace walls designed to
dry to the interior.
3. A vapor retarder is not required on basement walls designed to
dry to the interior. Such walls shall be insulated with one of the
following methods:
   a. Two inches minimum of EPS or XPS foam plastic
      insulation applied directly against the exterior of the
      foundation wall, and one inch of EPS, XPS or
      polyisocyanurate (PIR) applied between the interior
      surface of the foundation wall and framing. The framing
      cavity may be insulated with any type of approved
      insulation.
   b. Three inches minimum of two pound density closed cell
      foam plastic insulation applied to the interior side of the
      foundation wall with one inch minimum of insulation
      between any wall framing and the foundation wall.
   c. Equivalent moisture resistant system approved by the
      building official.
4. A vapor retarder is not required at cantilevered floor assemblies
   where the floor decking consists of nominal ¾ inch plywood, OSB
   or other approved material having a perm rating meeting the
   class II requirements. Joints shall be sealed.
5. The rim joist does not require a vapor retarder.
6. Not withstanding exception 3a, up to one-third of the total
   installed insulation R-value may be installed on the warm side of
   the vapor retarder. This exception applies only when the daily
   average indoor relative humidity is maintained below 35 percent
   during the heating months of November through March.
7. A class III vapor retarder may be used on walls and roof insulated
to a minimum value of R-21 with spray foam having a minimum
density of 2 pounds per cubic foot.

23.85.R401.1 Application.
Add the following item No. 3 to the exception:
3. Wood foundations with a crawlspace shall be per 23.85. Figure
   R403-34.

23.85.R401.3 Drainage.
Add the following sentence to the end of the paragraph:
   There shall not be a net increase in surface drainage across property lines.
   Approved discharge locations shall include street gutters, drainage
   easements, ditches, or other approved locations. Surface runoff may be
   retained on site to prevent impacts to neighboring properties.
23.85.R401.4 Soil tests.
Add the following to this section:
Special site investigations shall be performed in potentially hazardous areas as follows:
1. Special site investigations are required in delineated seismic hazard zones after consideration of the proposed location, use, and building type. The required level of documentation is specified in the following paragraphs according to designations in 23.85. Table R401.4.

   a. For site investigation requirement "A", submit geotechnical information sufficient for the Building Official to verify that the assumed hazard zonation is consistent with known site conditions.
   
   b. For site investigation requirement "B", provide all information described above; plus submit geotechnical investigation per 2012 IBC 1803 prepared by a professional engineer registered in the State of Alaska. It may be necessary to extend the investigation beyond the immediate site boundaries in order to evaluate applicable hazards. The structure shall be designed and sealed by a structural engineer registered in the State of Alaska.

Exceptions:
1. A geotechnical report is not required for an addition to a detached single-family residence or duplex where all of the following conditions apply:
   a. The footprint of the addition does not exceed the footprint of the existing building;
   b. The addition does not increase or exceed the number of stories of the existing building; and
   c. Structural analysis demonstrates that new foundation elements can match existing.

2. A geotechnical report is not required for a detached accessory structure less than 400 square feet in area.

3. Unless required by a plat note, a registered engineer does not need to design either the structure or its foundation if the geotechnical report is based on site-specific soils information and where all of the following are true:
   a. Slope Stability: A submitted pseudo-static slope stability analysis shows a minimum factor of safety of 1.10 for seismic loading conditions in accordance with AMC 23.15.1803.5.11
b. Liquefaction: The potential for liquefaction and soil strength loss evaluated in terms of peak ground acceleration, earthquake magnitude, and duration is unlikely.

c. Lateral Spreading and Pressure Ridges: The potential for earthquake-induced lateral spreading and pressure ridges is unlikely.

2. Where the soil investigation section of the Anchorage Administrative Code requires a geotechnical investigation to be performed, the potential for isolated permafrost shall be addressed in the geotechnical report.

### 23.85. Table R401.4 Hazard zone.

<table>
<thead>
<tr>
<th>OCCUPANCY</th>
<th>SITE INVESTIGATION REQUIREMENT</th>
<th>HAZARD ZONE (SEE NOTES)</th>
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</thead>
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<tr>
<td>Residential</td>
<td>5 B</td>
<td>4 A</td>
</tr>
<tr>
<td></td>
<td>3 B</td>
<td>2 A</td>
</tr>
<tr>
<td></td>
<td>1 A</td>
<td></td>
</tr>
</tbody>
</table>

NOTES: For details and descriptions of site investigation requirements, see IBC Chapter 18.

Hazard Zones*

1. Lowest Ground Failures Susceptibility
2. Moderately Low Ground Failure Susceptibility
3. Moderate Ground Failure Susceptibility
4. High Ground Failure Susceptibility
5. Very High Ground Failure Susceptibility


### 23.85.R403.1 General.

Delete the last two sentences of R403.1 and figures R403.1(1), R403.1(2), and R403.1(3) and Table R403.1, and add or replace with the following:

1. Definitions:
   a. **WARM FOUNDATION:** Any foundation where the temperature of the bearing soils are normally maintained above freezing;
   b. **COLD FOUNDATION:** Any foundation where the temperature of the bearing soils are normally subjected to freezing.

2. Foundations shall be constructed as shown in Table 23.85.R403-16 and Figures 23.85.R403-25, 23.85.R403-29, 23.85.R403-31, 23.85.R403-34, and 23.85.R403-37 or foundations designed under the provisions of the IBC. Footings and foundations shall be constructed of masonry, concrete, or treated wood. Footings of concrete and masonry shall be of solid material. Foundations supporting wood shall extend at least six (6) inches above the adjacent grade. Unless other
recommendations are provided by a foundation investigation report, footings shall meet the following requirements:

a. Minimum footing depths shall be indicated in 23.85. Table R403.1. Footings shall bear on undisturbed natural inorganic soil, or suitably compacted fill.

b. Cast-in-place concrete piers shall be founded at a depth suitable for structural support or as indicated in 23.85. Table R403.1, whichever is greater. Connecting grade beams between piers on perimeter walls of warm buildings shall extend at least 36 inches below ground surface and shall be protected from frost heave. The potential for frost heave below grade beams of cold structure shall be accounted for in the design of these elements.

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23.85. Table R403-16 Reinforced concrete.
1. Reinforced concrete walls shall be anchored to all floors and roofs in accordance with section 1604.8.2 of the International Building Code.

2. All intersecting reinforced concrete walls shall be tied together. (IBC 1907.13)

3. All interior and exterior concrete walls shall be reinforced. (ACI-08 14.3.1)

4. All structural members framing into or supported on concrete walls or columns shall be anchored. (ASCE 7-05 1211)

5. All deformed reinforcing bars shall meet or exceed ASTM A615 requirements. (ACI-08 3.5.3)

6. Concrete in seismic zone D shall have a minimum compressive strength of 3000 psi for severe exposure. (See IBC 1808.8.6 and table 1904.3)

7. The following minimum reinforcement requirements shall apply to all below grade concrete walls (i.e. basement walls and crawlspace walls). This reinforcing does not apply to above grade walls, which must be designed in accordance with the requirements of IBC.

MINIMUM REINFORCEMENT FOR CONCRETE WALLS
(Horizontal and Vertical Spacing)

<table>
<thead>
<tr>
<th>Width of Wall</th>
<th>#5 Bar</th>
<th>#4 Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; Walls</td>
<td>#5 @ 18&quot; O.C. hor.</td>
<td>#4 @ 16&quot; O.C. hor.</td>
</tr>
<tr>
<td></td>
<td>#5 @ 18&quot; O.C. vert.</td>
<td>#4 @ 18&quot; O.C. vert.</td>
</tr>
<tr>
<td>8&quot; Walls</td>
<td>#5 @ 18&quot; O.C. hor.</td>
<td>#4 @ 12&quot; O.C. hor.</td>
</tr>
<tr>
<td></td>
<td>#5 @ 18&quot; O.C. vert.</td>
<td>#4 @ 18&quot; O.C. vert.</td>
</tr>
<tr>
<td>10&quot; Walls</td>
<td>#5 @ 15&quot; O.C. hor.</td>
<td>#4 @ 10&quot; O.C. hor.</td>
</tr>
<tr>
<td></td>
<td>#5 @ 18&quot; O.C. vert.</td>
<td>#4 @ 16&quot; O.C. vert.</td>
</tr>
</tbody>
</table>
23.85. Figure R403-25  Typical foundation and footing details.
23.85. Figure R403-29  Typical step footing.

NOTE: Minimum steel cover when concrete is in permanent contact with earth as on bottom of footings is 3 inches. Minimum steel cover when concrete is exposed to weather is 2 inches.

48" min. return of third member. No splices in third member.

Height ("H")

48" max. step

MINIMUM SPACING

48" 3 - #5 Rebar continuous through steps.

Steps less than 24" do not require third member.

NO 5 BAR

Minimum lap of Rebar, 30 dia., or 18.75 inches.

48" min. return of third member. No splices allowed in third member. Top and bottom.
23.85. Figure R403-31  Typical pony wall for split level.

6" POURLED OR CNW FOUNDATION WALL, 10" WALL REQUIRED WHEN WALL SUPPORTS 3 FLOORS OR ENGINEERED DESIGN REQUIRED.

SHEAR WALL EDGE NAILING PER ENGINEER, 6d (.130) @ 8" OC WN.

FOR SIX COURSES OR LESS
- CNW: VERTICAL NO. 5 REBAR @ 32" OC
- HORIZONTAL NO. 5 REBAR @ 48" OC
- 25" LAP SPACERS FOR BOTH DIRECTIONS.

POURED: VERTICAL NO. 5 REBAR @ 18" OC, HORIZONTAL NO. 5 REBAR @ 18" OC OR PER TABLE 23.85.R403-18
- 18" LAP SPACERS FOR BOTH DIRECTIONS
- 3000 PSI CONCRETE

INSTALL PROTECTION BOARD AS REQUIRED BY MANUFACTURER'S SPECIFICATIONS OF WATERPROOFING

APPROVED WATER PROOFING TO EXTEND DOWN FROM ABOVE GRADE TO 6" BELOW TOP OF FOOTING

6" Poured or CNW Foundation Wall, 10" Wall Required When Wall Supports 3 Floors or Engineered Design Required.

2x6 Studs
Exterior Sheathing
Bottom Plate Nail Per Engineer, 3-16d per 18" win.

Treated New-Fir sill with sill sealer.

1/2" dia. Nail Galv. Anchor Bolts @ 72" C.C. Wax or per design
- With J300/229 (1/4") plate washers
- 7" embed

No. 5 Rebar Continuous

R15 Continuous or R19 cavity insulation

42" Wall

6" Wall

10" Wall

6" Polyethylene moisture barrier

3 1/2" slab vapour

W/ vapourbarrier-1.411.4 or fiberglass woven wash

2x10 continuous, 3" cover & 18" lap splice hook as required by design

Maximum 5' differential fill between inside versus outside or designed restraint required.
23.85. Figure R403-34  All weather wood foundation.

- All cut edges of any AW shall be treated per 317.1.1.
- Shear wall edge nail & rim to sill connection per engineer.
- MIN. 9# (.33) 96" O.C.
- AW plywood strip covering at water proofing; extend 2" above and 5" below grade. Caulked full length of wall.
- Bottom plate nail per engineer.
- MIN. 3-16s per 16".
- Block 1 bay @ 46" O.C. when joists parallel to foundation wall. 5-10m to joist-blocking, framing anchor top plate to block.
- R15 continuous or R19 cavity insulaltion.
- Ignition barrier for FSW plastic unless insulation is approved for use without a ignition barrier.
- 2x6 @ 16" O.C.
- AW sill with 1/2" dia. min. stainless steel anchor bolts @ 72" O.C. or per design with 30x3.5 1/4" plate washers 7" flared.
- 6-mil polyethylene moisture retarder to be attached with a continuous approved sealant to top of footing.
- A minimum 5" wide by 4" deep concrete curb poured against the inside face of the stius. The anchor shall be reinforced with a continuous horizontal #3 reinforcing bar. If the stius is not poured with the continuous concrete footing, it may be poured later providing vertical #3 reinforcing bars, 10" long casted into footing at 2" O.C. They shall extend 2" above the top of the footing. The continuous #3 bar shall be secured to the vertical #3 bars.
- Option: treated AW with 1/2x10 stainless anchor bolts @ 2" C.C.

The above detail need not apply if a suitable alternate design is prepared by an engineer registered in the state of Alaska and is approved by the building official.
23.85. Figure R403-37  Typical basement foundation wall.

DO NOT BACKFILL ABOVE 4' UNTIL BLOCKING, FRAMING ANCHORS & PLYWOOD NAILS ARE INSTALLED.

- Shear wall, edge nail, & nailing to hill, connection for header.
- Space 6" to grade.
- Flash rests from flashing insulated.
- Above grade.
- Total of 110 oz. as per side.
- On both sides of wall.
- Not to be used for 6" of wall.
- Bond plate nail per engineer.
- Minimum 3-16d per 16".
- Block a wall of 20" from cutline face of wall.
- Cutting perpendicular to foundation wall.
- Spacing 36" C.C.
- Wall with floor framing.
- Poured wall must be on top of foundation wall.
- Rusticated foundation wall and footing.
- Treated rim-jack with sealant.
- 3/4" G.C. max. (max. 5 1/2").
- 7 5/8" G.C.
- 10" G.C. or 5000 psi.
- Each side except at each foundation.

- Raised floor:
- Place reinforcement on inside face.
- 1.5" clear for poured concrete.
- 1/2" T.C. to cell for G.C.
- 3/8" T.C. to cell for G.C.
- Circuit board.

- Max. wall height 12' above drain or 6'.
- On excavation required if foundation wall.
- 10" wall required.
- Cell wall supporting 1 floor.
- On excavation required.

- Standard head: 2.5" extension, 2.5" bend adapters.
- 2 1/2" slab 3" V-GROOVED 1-1/4 or
- 1" FLEXIBLE SVK WEB.
- 8" min. over bumper below slab.
### 23.85. Table R403.1 Footing depths.

<table>
<thead>
<tr>
<th>Foundation Type</th>
<th>Minimum Footing Depth (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perimeter Footing (1)</td>
<td></td>
</tr>
<tr>
<td>Foundation</td>
<td>Warm</td>
</tr>
<tr>
<td></td>
<td>Cold Foundation</td>
</tr>
<tr>
<td>Interior or Interior</td>
<td>42</td>
</tr>
<tr>
<td>Isolated Spread Footings (2)</td>
<td>all measurements are from top of</td>
</tr>
<tr>
<td></td>
<td>finished</td>
</tr>
<tr>
<td>Cast-in-Place Concrete Pier</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>grade</td>
</tr>
<tr>
<td></td>
<td>120 (5)</td>
</tr>
</tbody>
</table>

**NOTES TO TABLE:**

1. Dimension indicated is from bottom of footing to adjacent exterior grade. Basements or crawlspace walls supporting more than five feet differential fill on opposite faces shall be restrained as necessary against lateral movement.

2. Dimension indicated is from bottom of footing to nearest adjacent grade.

3. Exterior decks landing and platforms attached to the building and not greater than 72 inches above grade may be supported on near surface pier blocks founded on adequate soils. Bearing materials shall meet the other provisions of this code. The potential for and the effects of frost heave shall be considered.

4. The minimum footing depths may not be adequate for frost susceptible soils. Cold footings shall be founded below the frost line, or be protected from freezing with insulation or other appropriate means. In addition, provisions shall be made to resist uplift forces due to frost jacking on the side of cold foundations.

5. Cast-in-place concrete piers installed in non-frost-susceptible material may be 60 inches (five feet).

### 23.85.R403.1.1 Minimum size.
Delete section R403.1.1. See 23.85.R403.1

### 23.85.R403.1.3 Seismic reinforcing.
Delete the exception.

### 23.85.R403.1.4.1 Frost protection.
Revise method #1 to reference 23.85. Table R403.1 in lieu of Table R301.2(1)

### 23.85.R403.2 Footings for wood foundations.
Delete entire paragraph and replace with the following:

Wood foundations shall be per 23.85. Figure R403-34.
### 23.85. Table R403.3(1)  Minimum footing depth and insulation requirements for frost-protected footings in heated buildings.

Amend footnote (c.) as follows:

- **c.** Insulation shall be expanded polystyrene (EPS) or extruded polystyrene (XPS) manufactured in accordance with ASTM C578. The following R-values shall be used to determine insulation thickness required for this application:

  - **i.** Type II EPS: R-3.2 per inch vertical and R-2.6 per inch horizontal;
  - **ii.** Type IX EPS: R-3.4 per inch vertical and R-2.8 per inch horizontal;
  - **iii.** Type X, IV, VI, VII and V XPS: R-4.5 per inch vertical and R-4.0 per inch horizontal.

  For EPS insulation Types not listed, the R-value used to determine insulation thickness shall be 80 percent of the manufacturer listed R-value @75F for vertical insulation and 67 percent of the manufacturer listed R-value @75F for horizontal insulation. Reference ASCE Standard 32-01, Appendix A.

Delete footnotes (d) and (e).

### 23.85. Table R403.3(2)  Air-freezing index for U.S. locations by county.

Add Anchorage to the "3500" column in the Alaska row.

### 23.85.R404.1  Concrete and masonry foundation walls.

Delete sections R404.1.1 through R404.1.8.

Delete Tables R404.1.1(1) through R404.1.1(4), and R404.1.2(1) through R404.1.2(9), and Figure R404.1.5(1).

See 23.85.R403.1.

### 23.85.R404.2  Wood foundation walls.

Delete section R404.2. Reference 23.85. Figure R403-34 All Weather Wood Foundation.

### 23.85.R404.3  Wood sill plates.

Delete paragraph and substitute with the following:

Wood sill plates shall be minimum 2-inch x by 6-inch and shall be bolted to the foundation or foundation wall with not less than ten (10) inch by one half (1/2) inch nominal diameter galvanized steel bolts embedded at least seven (7) inches into the concrete or in fully grouted cells of reinforced masonry and spaced not more than six (6) feet zero (0) inches apart. There shall be a minimum of two bolts per piece with one bolt located within 12 inches of each end of each piece. Wood sill plates must be treated material specified in Section R317.1.
23.85.R404.6  **Insulating concrete form (ICF) foundation walls.**
Add new section:
R404.6 Insulating concrete form (ICF) foundation walls. Only flat insulating concrete form (ICF) wall systems shall be used with reinforcement per 23.85. Table R403-16.

23.85.R405.1.1  **Precast concrete foundation.**
Delete section R405.1.1.

23.85.R406.1  **Concrete and masonry foundation dampproofing.**
Substitute with the following:
In the first sentence beginning with the word “enclose”, replace the wording in the rest of the sentence with the following: ‘crawl space walls 40 inches or less in height shall be damp-proofed from above grade to 6” below the top of the footing.”

Number the exception in the IRC code 1 and add exception 2 as follows:
2. Foundation walls backfilled on both sides, such as those used in conjunction with a “slab on grade”, do not require dampproofing.

23.85.R406.2  **Concrete and masonry foundation waterproofing.**
Delete the first sentence and replace with the following:
Exterior foundation walls that retain earth and enclose habitable or usable interior spaces and floors below grade shall be waterproofed from above grade to 6” below the top of the footing.

Number the exception in the IRC code 1 and add exception 2 as follows:
2. Foundation walls backfilled on both sides, such as those used in conjunction with a “slab on grade” do not require waterproofing.

23.85.R406.3  **Dampproofing for wood foundations.**
Delete the word “dampproofing” in heading and body of section and replace with “waterproofing”.

23.85.R406.3.2  **Below grade moisture barrier.**
Revise R406.3.2 to read as follows:
Approved waterproofing shall be applied over the below-grade portion of exterior basement and crawlspace walls prior to backfilling. A treated lumber or plywood strip shall be attached to the wall to cover the top edge of the approved waterproofing. The wood strip shall extend at least two (2) inches above and five (5) inches below finish grade level to protect the approved waterproofing from exposure to light and from mechanical damage at or near grade. The joint between the strip and the wall shall be caulked full length prior to fastening the strip to the wall. Alternatively, brick, stucco, or other covering appropriate to the architectural treatment may be used in place of the wood strip. The approved waterproofing shall extend down from above grade to 6” below the top of the footing.
23.85.R406.4 Precast concrete foundation system dampproofing.
Delete paragraph, replace with the following:
See Section 23.85.R406.1 and 23.85.R406.2 for requirements.

23.85.R407.2 Steel column protection.
Delete paragraph and replace with the following:
Exterior surface of steel columns exposed to the elements shall be protected with a rust inhibitive paint except for corrosive-resistant steel and steel treated with coatings to provide corrosion resistance.

23.85.R501.3 Fire protection of floors.
Revise Exception 2 to read as follows:
Floor assemblies located directly over a crawl space or unfinished basement not intended for storage or fuel-fired appliances. Direct vent, sealed-combustion fuel fired appliances shall be allowed without floor protection.

23.85.R506.2.3 Vapor retarder.
Delete Exception No. 1.

23.85.R602.6 Drilling and notching of studs.
Amend section by adding item 3:
3. All studs in walls containing plumbing drains and vents shall be a minimum of 6” nominal width or structurally sheath one side when 4” nominal width studs are used.

23.85.R702.7 Vapor retarders.
Amend section by deleting subsection R702.7.1 Class III vapor retarders. Reference 23.85.R324.

23.85.R703.2 Water-resistant barrier.
Amend the first sentence of section by starting the sentence out with:
“Though, not required by the Municipality of Anchorage, when installed or when required by the manufacturer, apply…”.
Amend the first sentence by adding the word “permeable” between the “of” and “No. 15”.

23.85.R703.3.1 Panel siding.
Add the following to the end of the paragraph:
Exterior type plywood siding with a grooved pattern shall not be installed horizontally and used as the weather resistant siding.
23.85. Table R703.4 Water-resistant siding attachment and minimum thickness.
In the fourth column “Water resistive barrier required”, add note after heading to “See local amendment 23.85.R703.2.”

23.85.R703.8 Flashing.
Rename item 1.3 to be the new item 1.4 and add the new item below as the new 1.3:
   1.3 Where flashing cannot be installed per one of the above referenced methods, the exterior opening shall be caulked and sealed with exterior grade, paintable caulk, a minimum of a 3/8" bead.

23.85.R802.2 Design and construction.
Add a sentence to end of paragraph as follows:
   Minimum depth from roof sheathing to wall plate at exterior side of exterior wall shall be 11 ¼ inches.

23.85.R802.10.1 Truss design drawings.
Amend first sentence by deleting the words: “and approved prior to installation.”

23.85.R802.10.2 Design.
Add the following sentence to end of paragraph:
   Minimum depth of truss at exterior wall plate shall be 11 ¼ inches at exterior side plate.

Add the following section:
   R802.12 Wood frame roof attachment at eave blocking. The following 5 options are an acceptable means for transferring roof diaphragm shear forces to exterior walls. Alternative designs based on calculations for shear transfer to the exterior walls may be used in lieu of these details. Regardless of the method selected, roof ventilation shall comply with section R806.

**OPTION 1**
Full-height blocking in every truss space with 3 or more 2-inch diameter or larger holes located near the top of block.

**OPTION 2**
Full-height blocking in every other truss space with 3 or more 2-inch diameter or larger holes located near the top of block, with partial height blocking in alternate spaces. Partial height blocking shall allow a clear air gap of between 1-1/2 to 2 inches. Minimum size partial height block is 2x10 where truss heels are 11-1/4 inches high.
OPTION 3
This partial-height blocking configuration may be used where trusses have of 11-1/4 inch heels at the wall line. Blocking is required in every truss space.
OPTION 4
This partial-height blocking configuration may be used where diaphragm shear is less than 95 plf. **Blocking is required in every truss space.**

**LIMITATIONS:**
1. Roof slope shall be equal to or steeper than 3:12 pitch
2. Truss top chord shall be 2:6 or greater

OPTION 5
For prescriptively braced wall panels and engineered shear wall designs for one- and two-family dwellings and townhomes, this configuration, as described in R602.10.8.2.2, may be used.

**FIGURE R602.10.8.2(1)**
Braced wall panel connection to perpendicular rafters
[This partial-height blocking configuration may be used for unblocked diaphragms where the diaphragm shear is less than or equal to 125 plf for wind loads, 89 plf for seismic loads (250 plf nominal, $W=2.0$, $EQ=2.8$). The diaphragm shear must be checked by the designer through parallel calculations for both wind and seismic conditions. **Blocking is required in every truss space.** Chord members and drag elements shall be specifically detailed for load transfer to the supporting wall.]

[Delete graphic:

![Diagram of partial height blocking configuration]

23.85.R806.1 **Ventilation required.**
Delete the following words from the exception:
"due to atmospheric or climatic conditions"

23.85.R806.2 **Minimum vent area.**
Add the following to the end of the paragraph:
At least 50 percent and not more than 80 percent of the required ventilating area shall be provided by ventilators located in the upper portion of the space. Upper ventilators shall be located no more than 3 feet below the ridge or highest point of the space, measured vertically, with the balance of the required ventilation provided at the eaves. Where the location of wall or roof framing members conflicts with the installation of the upper ventilators, installation more than 3 feet below the ridge or highest point of the space shall be permitted.

Revise the exception to read as follows:
**Exception:** The minimum net free ventilation area is permitted to be $1/300$ of the vented space provided both of the following conditions are met:
23.85.R806.5  Unvented attic and unvented enclosed rafter assemblies.
Delete section R806.5.

23.85.R807.1  Attic access.
Add the following to Section:
   Attic access shall not be located in a room containing bathing facilities.
   Access may be located in closets with minimum depth of 23 inches and minimum width of 48 inches.

23.85.R903.1  General.
Add the following paragraph to the end of section:
   1. All valleys shall have a modified bitumen ice barrier lapped eighteen inches minimum each side of valley centerline. No penetrations shall be located in required valley ice barrier.
   2. All roof penetrations shall be located a minimum of six feet from valley centerline and four feet from the exterior wall line at the eave measured on a horizontal plane, excluding attic ventilation.
   3. All roof penetrations shall extend above the roof surface a minimum of 24 inches, except attic ventilation.
   4. Type B gas vents may penetrate the eave ice barrier area if installed within a 24 inches, wood framed, R-19 insulated curb, measured on the ridge side of the roof. The ice barrier must extend up the curb a minimum of 12 inches on all sides. See detail below.
23.85.R903.4.2 Snow impact on neighboring lot.
Add the following subsection:
R903.4.2 Snow impact on neighboring lot. Snow from a structure shall not shed across property line.

23.85.R905.1.1 Underlayment.
Add the following subsection:
R905.1.1 Underlayment. Underlayment shall comply with ASTM D 226 Type I (No. 15 Asphalt Felt). For slopes 4V:12H and steeper underlayment shall be at least one layer installed with a 4 inch lap over the ice barrier. Each subsequent layer shall be lapped 4 inches vertically and two inches horizontally to shed water, continuing to the ridge, fastened sufficiently to hold in place. See 23.85.R905.1.2 for ice barriers used as underlayment.

23.85.R905.1.2 Ice barrier.
Add the following subsection:
R905.1.2 Ice barrier. An ice barrier shall be a self-adhering polymer modified bitumen sheet complying with ASTM D 1970. For slopes less steep than, but not including, 4V:12H, an ice barrier shall be used over the entire surface of the roof. No additional normal underlayment is required. For slopes 4V:12H and steeper an ice barrier shall extend from the lowest edges of all roof surfaces to a point at least 36 inches inside the exterior wall line of the building. The remainder of the roof surfaces may be covered with normal underlayment.

23.85.R905.2.7 Underlayment application (asphalt shingles).
Delete section R905.2.7. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.2.8.2 Valleys (asphalt shingles).
Delete items 1, 2 and 3 and replace with the following items:

1. For open valleys (valley lining exposed) lined with metal, the valley lining shall be at least 24 inches (610 mm) wide and of any of the corrosion-resistant metals in table R905.2.8.2 installed over the required 36" wide self-adhering polymer modified bitumen underlayment complying with ASTM D 1970.
2. For open valleys (valley lining exposed) lined with one ply of mineral surfaced roll roofing, complying with ASTM D 3909 or ASTM D 6380 Class M, 36" wide installed over the required 36" wide self-adhered polymer modified bitumen underlayment complying with ASTM D 1970.
3. For closed valleys (valley covered with shingles), valley lining of one layer of self-adhered polymer modified bitumen underlayment, minimum 36" wide, complying with ASTM D 1970 shall be permitted.
23.85.R905.2.8.3 Sidewall flashing.
Delete the words “continuous or” in the first sentence and the word “continuous” in the second sentence.

23.85.R905.2.8.5 Drip edge.
Add the following exception to the end of the paragraph:
   Exception: A 1x drip edge installed at the top of the fascia shall be permitted where the roof shingles overhang the 1x at least 1”.

23.85.R905.3.3 Underlayment (clay and concrete tile).
Delete section R905.3.3. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.4.3 Underlayment (metal roof shingles).
Delete section R905.4.3. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.5.3 Underlayment (mineral-surfaced roll roofing).
Delete section R905.5.3. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.6.3 Underlayment (slate and slate-type shingles).
Delete section R905.6.3. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.7.3 Underlayment (wood shingles).
Delete section R905.7.3. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.8.3 Underlayment (wood shakes).
Delete section R905.8.3. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.9.1 Slope (built-up roofs).
Delete the words:
   “except for coal-tar built-up roofs, which shall have a design slope of a minimum one-eight unit vertical in 12 units horizontal (1-percent slope).”

23.85.R905.10.5 Underlayment (metal roof panels).
Delete section R905.10.5. Refer to 23.85.R905.1.1 and 23.85.R905.1.2.

23.85.R905.14 Sprayed polyurethane foam roofing.
Delete section R905.14.

23.85.N1101.1 Scope.
Add the following paragraph to this section:
   Reference AMC Chapter 23.60 for all amendments to this chapter. Local amendments shown in 23.60 apply to the referenced section in parentheses of this chapter.

23.85. Chapters 12-43.
Amend by deleting in their entirety Mechanical, Plumbing and Electrical, except specific sections referenced by the adopted provisions of this code.

23.85. Appendix.
Adopt Appendices E and K, with the local amendments that follow.
23.85.AE101.1 General.
Amend the first sentence to read:
These provisions shall apply to manufactured homes, mobile homes, campers, and travel trailers serving as detached single-family dwelling units placed either on private (nonrental) lots or within mobile home parks licensed by the Municipality of Anchorage, and shall apply to the following:

23.85.AE102.7 Mobile homes, campers, and travel trailers.
Add the following section:

**23.85.AE102.7 Mobile homes, campers, and travel trailers.**

**23.85.AE102.7.1 Mobile homes.**
Every mobile home built prior to June 15, 1976, shall be labeled as required in Section AE201, and shall conform to all of the following:

1. **FIRE WARNING SYSTEM** - Smoke detectors shall be provided with in accordance with R314.

2. **FIRE PROTECTION** – Each mobile home shall be equipped with at least one 2-A rated portable fire extinguisher installed in accordance with NFPA 10-2007.

3. **ELECTRICAL SYSTEM** - All electrical equipment, wiring, and appliances shall be installed per Building Safety Handout No. R.10 Mobile Home Set-Up and Permit Requirements, as maintained by the Building Official.

4. **MECHANICAL SYSTEM** - All heating facilities shall be maintained in a safe condition. Additions, alterations, repairs and replacements shall comply with manufacturer’s instructions and the currently adopted editions of the International Mechanical Code and the International Fuel Gas Code.

5. **PLUMBING SYSTEM** - All plumbing facilities shall be maintained in a safe and sanitary condition. Additions, alterations, repairs and replacements shall comply with manufacturer’s instructions and the currently adopted edition of the Uniform Plumbing Code.

6. **EXIT FACILITIES** - Mobile homes shall have a minimum of two external doors located remotely from each other and so arranged as to provide means of unobstructed travel to the outside of the mobile home.

7. **GROUND FAULT CIRCUIT INTERRUPTER (GFCI)** - Outlets shall have GFCI protection in accordance with the currently adopted edition of the National Electrical Code (NEC).
23.85.AE102.7.2 Campers and travel trailers.  
Campers and travel trailers shall not be occupied as a permanent dwelling. Campers and travel trailers may be occupied as a temporary dwelling in accordance with the limitations specified in AMC Title 21. When occupied as a temporary dwelling, campers and travel trailers shall be certified by the manufacturer as complying with ANSI A119.5 or NFPA 1192.

23.85.AE201 Definitions.  
Add the following:

CAMPER PARK. A tourist facility approved by the Municipality for use by dependent and independent recreational vehicles, including motor homes, pickup campers, travel trailers, tent campers and similar recreational vehicles as opposed to a mobile home park which is licensed to accommodate mobile homes.

MOBILE HOME PARK. Any parcel or adjacent parcels of land in the same ownership which is utilized for occupancy by more than two mobile homes. This term shall not be construed to mean tourist facilities for parking of travel trailers or campers.

Add the following at the end of the first paragraph in the definition of MANUFACTURED HOME:
Each manufactured home shall bear a certification label in accordance with the Manufactured Home Standards.

Add the following to the definition of MANUFACTURED HOME STANDARDS:
Every manufactured home installed in the Municipality of Anchorage must be certified for the "North Zone" (40 pounds per square foot) for snow load and heat loss "Comfort Zone 3" in accordance with HUD standards.

23.85.AE301.1 Initial installation.  
Add the following after the word “be” in the first sentence of the first paragraph:
...relocated, moved, or...

23.85.AE301.5 Gas and plumbing service.  
Add the following section:
AE301.5 Gas and plumbing service. The owner of a manufactured home or a licensed mobile home contractor may install or retrofit gas piping, gas appliances, or plumbing only under the following conditions:
1. The owner performing such work shall be a current occupant of the manufactured home and shall personally perform all work.
2. A licensed mobile home contractor may perform work on gas and plumbing utility connections only by use of a licensed journeyman plumber or journeyman gas fitter who is an
employee of the contractor. All such work shall bear a tag with
the identification number of the journeyman plumber or
journeyman gas fitter who performs the work.

3. Except as provided in items 1 and 2 of this section, all plumbing,
gas piping, or gas appliance retrofit work shall be performed by
a licensed plumbing or gas contractor.

4. No person may pipe natural gas to service gas fired equipment
unless
a. such equipment has been certified by the
manufacturer as being suitable to that use
and
b. such equipment has first been converted for use of
natural gas.

23.85.AE302.4 Who may apply.
Add the following section:

AE302.4 Who may apply. Only the owner of a manufactured home or a
licensed mobile home contractor may apply for a permit under this
Section.

23.85.AE307 Utility service.
Add the following sentence to AE307.1:

All sewer, electricity, gas, and water services shall be installed and
maintained in a safe manner in accordance with the appropriate adopted
codes.

23.85.AE502.3 Footings and foundations.
Replace the last sentence of the first paragraph with the
following:

Footings shall have a minimum depth of 42 inches below exterior grade
on privately owned (nonrental) lots, unless a greater depth is required
by the Building Official based on a foundation investigation or other
information. Footings or piers in mobile home parks may be placed at
surface grade, provided all other requirements are met.

23.85.AE502.6 Under-floor clearances-ventilation and access.
Add the following to the second paragraph:

Where combustion air is not taken from the crawl space, and where
the floor area of the home does not exceed 800 square feet, the
ventilation requirement may be met by operable vents of 8 inches by
16 inches installed in skirting not less than 18 inches above exterior
grade at opposite ends of the manufactured home.

23.85.AE503.1 Skirting and permanent perimeter enclosures.
Replace the first sentence of the first paragraph with the
following:

Every manufactured home shall be skirted around its perimeter from the
floorline to exterior grade with a skirting material having an insulation value
of R-19 as published by the American Society of Heating, Refrigeration,
and Air Conditioning Engineers (ASHRAE). A minimum of 6 mil
polyethylene film vapor retarder shall entirely cover the soil surface of the crawl space.

23.85.AE604.1 Ground anchors.
Replace the first paragraph with the following:
Ground anchors shall be designed and installed to resist overturning and lateral movement of the manufactured home, and shall extend at least 60 inches below exterior grade, or deeper if required by the Building Official because of poor soils. Ground anchors shall be installed for every manufactured home, except where a permanent foundation bearing at least 42 inches below grade is demonstrated by calculation to resist the forces as determined by Chapter 16 of the International Building Code.

CHAPTER 23.95 RELOCATABLE ANCILLARY BUILDINGS 1997 EDITION.

Sections
23.95.100 Building permit: exemption.
23.95.200 Requirements for building permit.
23.95.300 Definitions.

23.95.100 Building permit: exemption.
Relocatable ancillary buildings, which meet the requirements of section 23.95.200 qualify for a building permit. Relocatable ancillary buildings are exempt from the requirements of section 23.10.101.8, Moved buildings, and section 23.10.104.3, Temporary structures of the Anchorage Administrative Code, or any successor or local amendment thereto.

23.95.200 Requirements for building permit.
A relocatable ancillary building which meets all of the following requirements, qualifies for a building permit:

A. The relocatable ancillary building shall comply with the provisions of the technical codes for new buildings or structures relating to fire, building and life safety concerns and are current as of the date of the building plan review, except the relocatable ancillary building is not required to have:
1. Plumbing facilities;
2. Water service;
3. Permanent foundation;
4. Active fire alarm system, provided the relocatable ancillary building is less than 1,000 square feet in size and has at least two exit door openings;
5. Fire sprinkler system; or
6. Accessibility for the disabled, provided a similar education program is offered in the permanent building accessible to the
disabled.

B. The relocatable ancillary building must be secured to prevent overturning or sliding by lateral forces, including wind, and to minimize movement during seismic activities.

C. A plan for the proposed location of the relocatable ancillary buildings shall be approved by the municipal Fire Department and the Development Services Division of the Community Development Department.

D. An electrical permit and reinspection for the relocatable ancillary building is required following each relocation thereof.

E. A plumbing permit and reinspection for any relocatable ancillary building having plumbing facilities or water service is required following each relocation thereof.

23.95.300 Definitions.

A. Relocatable ancillary building - a publicly or privately owned moveable educational classroom or support facility meeting the Group E occupancy definition of the Building Codes contained in Title 23 and constructed for multi-year use in conjunction with one or more publicly or privately owned permanent building and which meets all of the following criteria:

1. Is a public or private educational facility which serves a public education purpose;
2. Is ancillary to a permanent building and serves the same general purpose and function as the permanent building;
3. Is located in close proximity to the permanent building; and
4. Is used as a classroom for students who have access to the plumbing facilities and water service of the permanent building or is used as a storeroom solely for classroom supplies.

CHAPTER 23.100 MOBILE AIRCRAFT SHELTERS 1997 EDITION.

Sections
23.100.010 General.
23.100.020 Location.
23.100.030 Occupancy.
23.100.040 Authorized activities.
23.100.050 Unauthorized activities.
23.100.060 Heating methods.
23.100.070 Area and height limitations.
23.100.080 Design.
23.100.090 Utilities.
23.100.100 Foundations.
23.100.110 Anchorage.
23.100.010 General.
Notwithstanding other requirements of this code, mobile structures for the housing of aircraft may be moved and maintained subject to the requirements set forth in this section.

23.100.020 Location.
Existing Mobile Aircraft Shelters (shelters) may be relocated on municipal airports. No such shelter shall be located closer than twenty (20) feet from any permanent building, mobile home or lot line, except where lot lines are along streets or aircraft taxiways where the twenty (20) feet may be measured from the centerline of the right of way; and except where such shelters are situated in a configuration providing periodic fire breaks in conformity with required building and fire codes. The location of each structure shall also comply with the requirements of title 21.

23.100.030 Occupancy.
Mobile Aircraft Shelters shall be used only for the following authorized purposes:
A. Storage of personal or business use aircraft and related spare parts;
B. Storage or use of tools subject to the limitations contained in this chapter; and
C. Minor maintenance or repair of aircraft by their owners or contract/licensed mechanics.

23.100.040 Authorized activities.
Authorized activities shall include storage or maintenance of the following:
A. Storage of an aircraft for personal or business use, or in the case of smaller aircraft, more than one aircraft;
B. Hand tools and small power tools required to support authorized activities;
C. Spare parts such as:
   1. tires and wheels
   2. propellers
   3. seats
   4. avionics
   5. hardware
   6. wire and wiring supplies
   7. lamps
   8. small structural sections
   9. personal and cargo parachutes, including packing and repairs to parachutes.
D. Work benches and shelves;
E. Storage cabinets;
F. Aircraft ingress winches and required electrical and communications utilities to support the same;
G. Routine cleaning of aircraft parts or the shelter;
H. Minor aircraft repairs, adjustments, and configurations;
I. Inspections, including annual inspections;
J. Installation or changing, or changing calibration of avionics;
K. Replacement of control surfaces, axles, bearings and aircraft accessories including but not limited to generators, alternators, fuel pumps, oil and vacuum pumps, magnets, batteries, cylinder heads and cylinder barrel replacement;
L. Open houses and posting signs for the purpose of showing or selling or subleasing a mobile aircraft shelter;
M. Storage of snow blowers or snow removal equipment;
N. Storage of compressors and related tools;
O. Unused oil not to exceed two (2) cases or ten (10) gallons;
P. Aircraft fuel in the aircraft tanks;
Q. Lubricants in factory containers;
R. Emergency electrical generators;
S. Seasonal equipment such as ice augers, survival equipment and non-commercial fishing equipment; and
T. Personal vehicles in place of the aircraft when the aircraft is flying.

23.100.050 Unauthorized activities.
Mobile aircraft shelters shall not be used for any of the following:
A. Commercial activities including but not limited to:
   1. performing for hire annual inspections for other aircraft owners;
   2. commercial basing of aircraft for the purposes of guiding, air cargo or commuter operations where the mobile aircraft shelter is used for ancillary uses other than the actual storage of this aircraft; and
   3. commercial basing of aircraft for instructional purposes when the mobile aircraft shelter is used for purposes other then only storage of the aircraft.
B. Major repairs, including engine tear downs;
C. Welding of any kind;
D. Painting except for minor touch up painting utilizing small, hand-held spray cans;
E. Storage of non-aviation related products including but not limited to:
   1. furniture not related to authorized shelter uses;
   2. unrelated business records or files;
   3. equipment, tools, or other items of household or business use;
   4. vehicles not otherwise allowed, including snow machines, motorcycles, all-terrain vehicles, automobiles, trucks;
   5. boats, except for rubber rafts and their motors;
   6. campers and camper shells;
   7. mobile homes;
   8. trailers;
   9. commercial generators and welders;
   10. used oil;
   11. fuel in drums or portable containers in excess of a total of five (5) gallons;
   12. hydraulic oil in excess of a total of one (1) gallon.
23.100.060  Heating methods.
Heating mobile aircraft shelters may be provided as follows:
A. The following may be used as methods of heating authorized aircraft, vehicle, equipment or shelters:
   1. electric block-type with UL approval for such purposes;
   2. pan adhesion with UL approval for such purposes;
   3. individual catalytic heaters with UL approval for such purposes; and
   4. forced air sealed combustion chamber heaters using outside combustion air connected to natural gas, provided such heaters are UL approved and are designed, installed and operated in conformity with applicable building and fire codes.
B. The following shall not be used as methods of heating aircraft, vehicles, equipment or shelters:
   1. open flame heaters of any kind;
   2. propane heaters;
   3. diesel fired heaters; and
   4. "salamander" or kerosene catalytic heaters.

23.100.070  Area and height limitations.
Individual shelters shall not exceed two thousand five hundred (2,500) square feet of usable floor area. Where two or more shelters are grouped together (or "nested" in "T-Hangar" configuration), the total gross floor area of such grouping shall not exceed twenty thousand (20,000) square feet on non-combustible construction without an approved area separation wall.
A. Adjacent shelters may be joined with non-combustible materials of similar design to original construction providing that they are separated by a one (1) hour rated fire door and applicable hardware. All floors shall be ground level, and no balcony or mezzanine floors shall be permitted, except that the areas which are not in the landing gear "footprint" may be insulated with insulfoam covered with plywood where said exposed materials are covered with an approved, rated, fire retardant coating.
B. Minimum spacing between groupings of shelters shall be sixty-five (65) feet, except when an area separation wall is provided as noted above and in concert with applicable building and fire codes. Maximum height of any portion of the structure above grade shall be twenty-five (25) feet, and subject to the appropriate, approved and adopted airport height zoning map.

23.100.080  Design.
Shelters may be constructed of any non-combustible materials permitted by this code. Adequacy of design shall be evidenced by International Code Council (ICC) Research Report, computations by a registered engineer in the State of Alaska, or other additional information such as manufacturer's specification sheets and test results, subject to the approval of the building official.

23.100.090  Utilities.
Shelters may be connected to electrical, communications and natural gas utilities provided all devices utilized and all methods of installation and use meet
the appropriate building codes and Municipal amendments thereto. If shelters are required in the future to be connected to water and/or sewer, and when and if such a requirement is perceived to exist, the Building Official shall provide guidance and where deemed appropriate and in the public interest, issue appropriate permits.

23.100.100 Foundations.
Shelters shall be founded on a concrete slab with a sufficient sill between each unit to prevent liquid from flowing from one unit to another unit with appropriate anchorage for the units into the concrete slab. Maximum soil pressures shall be in accordance with this code.

23.100.110 Anchorage.
Shelters shall be anchored to resist uplift and lateral forces. Anchors shall resist various forces through gravity and soil pressures. The suitability and capacity of anchors shall be established by appropriate test reports or computations. Anchors shall be installed in accordance with the manufacturer's recommendations.

23.100.120 Structural strength.
Existing shelters are grandfathered. Any modifications to existing shelters shall be designed and constructed to meet criteria as required by the building code.

23.100.130 Exits.
Exit requirements for portable aircraft shelters shall be as required in the building code.

23.100.140 Protective Finish.
Shelters shall have protective finishes required by building code on exposed surfaces.

CHAPTER 23.105 GRADING, FILL, EXCAVATION AND LANDSCAPING
2012 EDITION

Sections
23.105.101 General.

23.105.101.1 Scope. The provisions of this chapter apply to earthwork construction, including excavation, fills, embankments, grading, landscaping, and isolated retaining walls.

23.105.101.2 Flood hazard areas. The provisions of this chapter shall not apply in floodways within flood hazard areas established by Anchorage Municipal Code, Title 21, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

23.105.102 Definitions.

23.105.102.1 Definitions. For purposes of this chapter, the terms, phrases, and words listed in this section and their derivatives shall have the indicated meanings.

APPROVAL. The proposed work or completed work conforms to the requirements of this chapter in the opinion of the building official.

APPROVED PLAN. The site plan and/or sections showing the extents of grading operations, existing grade and the proposed final grade after being reviewed for code compliance by the building official, and accepted as conforming to this and other applicable codes and laws.

AS-GRADED. The extent of surface conditions on completion of grading; see also GRADE, FINISH.

BEDROCK. In-situ solid rock.

BENCH. A relatively level step excavated into a slope of earth material onto which fill is to be placed.
BORROW. Earth material acquired from an off-site source for use in grading.

BORROW SITE. The location where borrow material is taken.

COMPACATION. The densification of a fill section by mechanical means.

EARTH MATERIAL. Any rock, natural soil, fill, or any combination thereof.

EXCAVATION. The removal of earth material by artificial means; also referred to as a cut.

FILL. Deposition of earth material by artificial means.

GRADE. The vertical location of the ground surface.

GRADE, EXISTING. The grade of the site prior to grading.

GRADE, FINISH. The grade of the site at the conclusion of all grading efforts.

GRADE, ROUGH. The stage at which the grade of the site approximately conforms to the approved plan.

GRADING. An excavation or fill, or a combination thereof.

GRADING QUANTITY. The total amount of excavated earth material removed and fill placed on the site.

KEY. A compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

LANDSCAPING. Finish grading using organic soils for the placement of surface vegetation, including annual and perennial plants, grasses, shrubs, and trees.

RETAINING WALL. A wall or structure used to resist lateral earth pressures.

RETAINING WALL, SEGMENTAL. A retaining wall constructed entirely of individual modules or blocks, which are not cast or grouted together.

SITE. Any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

SLOPE. An inclined surface. The inclination of which is expressed as a ratio of horizontal distance to vertical distance.
SOIL. Naturally-occurring superficial deposits overlying bedrock.

TERRACE. A relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

UTILITY. Building or site services that include water, wastewater, natural gas, electric, or telecommunications. Stormwater drainage is not considered a utility under this code.

23.105.103 Permits required.

23.105.103.1 Permits required. Except as exempted in Section 23.105.103.2, no grading shall be performed without first having obtained a permit from the building official. A grading permit issued under this chapter shall include isolated retaining walls, but does not include other structures, or any retaining walls connected to another structure. Separate permits shall be required for each individual site.

23.105.103.2 Exceptions. A grading permit shall not be required for the following work:

1. When approved in advance by the code official, grading in an isolated, self-contained area if there is no danger to private or public property.
2. An excavation below finished grade for basements and footing of a building, retaining wall or other structure authorized by a valid building permit.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations when not intended to be developed to carry structural loads after the site is closed for further refuse disposal.
5. Excavation for wells or utilities.
6. Mining, quarrying, excavating, processing, or stockpiling of rock, sand, gravel, aggregate, or clay, where established and provided by law, provided such operations do not increase the stresses in or pressure upon any adjacent or contiguous property.
7. Exploratory excavations under the direction of soils engineers or engineering geologists.
8. An excavation that does not adversely affect drainage, and is:
   a. less than 2 feet (610 mm) in depth; or
   b. does not create a cut slope greater than 3 feet (914 mm) in height or greater than 1 unit vertical in 2 units horizontal (50% slope).
9. A fill that does not adversely affect drainage, and is not more than:
   a. 1 foot (305 mm) in depth placed on natural terrain with a slope not exceeding 1 unit vertical in 5 units horizontal (20% slope); or
b. 3 feet (914 mm) in depth that does not exceed 50 cubic yards (38.3 m³) on any site that does not obstruct a draining course, and is not intended to support structural loads.

10. An isolated retaining wall not supporting a surcharge where the retained height measured from the bottom of the footing to the top of the retained soil at the face of the wall is not more than 4 feet (1,219 mm) and the top of the wall above the retained soil is not more than 1 foot (305 mm).

11. Landscaping that does not alter an existing drainage course.

Exemption from the permit requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code, or any other laws or ordinances of the Municipality of Anchorage.

23.105.104 Hazards.

Section 23.105.104.1 Hazardous conditions. When the code official has determined any existing excavation, fill, or landscaping on private property has become a hazard to life and limb, endangers property, or adversely affects the safety, use, or stability of a public way, the owner of the property upon which the excavation or fill is located, or other person or agent in control of the property, upon receipt of notice in writing from the code official, shall within the period specified therein abate by repair or elimination such excavation or fill to remove the hazard and be in conformance with the current requirements of this code.

23.105.104.2 Abatement. Abatement of hazardous conditions shall be in accordance with this code and AMC 23.70.

23.105.105 Permit application and submittals.

23.105.105.1 Grading designation. All earthwork construction shall be designated in accordance with this section.

23.105.105.1.1 Regular grading. Regular grading is defined as meeting all of the following requirements:

1. Grading quantities shall not exceed 5,000 cubic yards (3,823 m³);
2. Existing slopes do not exceed 1 unit vertical in 5 units horizontal (20% slope);
3. Does not include retaining walls not exempted per Section 23.105.103.2 that are adjacent to property lines or structures where the distance from the face of the retaining wall to the
property line or structure is less than twice the height of the
retained soil; and
4. Does not include retaining walls not exempted per Section
23.105.103.2 that are located in Seismically-Induced Ground
Failure Zones 4 or 5, as defined by AMC 23.15.1613.2.

23.105.105.1.2 Engineered grading. Engineered grading is defined as
all other grading not meeting the requirements of Section
23.105.105.1.1 for regular grading, or where the building official
determines that special conditions or unusual hazards exist that
requires professional engineering. Landscaping that does not qualify as
regular grading shall be an engineered grading.

23.105.105.2 Submittal requirements. In addition to the requirements
of AMC 23.10, the applicant shall state the estimated quantities of
excavation and fill, and the estimated length of isolated retaining walls.

23.105.105.2.1 Site plan requirements. The construction documents
submitted with the application for permit shall be accompanied by a site
plan showing, to scale, the size and location of new construction and
existing structures on the site, distances from lot lines, and elevations
at all lot corners, based on ties to a recovered Benchmark identified in
the MOA Benchmark Network. Assumed elevations shall only be
allowed with prior written consent of the department. The site plan
shall also show existing and proposed drainage patterns, identifying
any location where drainage is proposed to be transported off-site; and,
as applicable, flood hazard areas, floodways, and design flood
elevations; and it shall be drawn in accordance with an accurate
boundary line survey. In the case of demolition, the site plan shall show
construction to be demolished, and the location and size of existing
structures and construction to remain on the site or plot. The building
official is authorized to waive or modify the requirement for a site plan
when the application for permit is for alteration or repair or when
otherwise warranted.

23.105.105.2.2 Soils engineering report. Where grading is
designated as engineered in accordance with Section 23.105.1.1, a
soils engineering report shall be required. The report shall be
prepared in accordance with Section 1803 of the International Building
Code.

23.105.105.2.3 Statement of special inspections. Where special
inspections are required under Section 23.105.1.2, a statement of
special inspections shall be provided on the plans or as a separate
document. The statement shall comply with the requirements of
Section 1705.2 of the International Building Code.

23.105.106 Inspections.
23.105.106.1 Municipal inspections. All grading, landscaping, and retaining wall construction for which a permit is required shall be subject to inspections by the building official, and shall remain exposed and accessible until approved by the building official.

23.105.106.1.1 Municipal inspection schedule. Municipal inspections shall be scheduled at 50-percent and 100-percent completion for all grading work.

23.105.106.1.2 Additional engineered grading inspections. Additional municipal inspections for engineered grading shall be scheduled at the start of work, and for every 25,000 cubic yards (19,114 m³), or portion thereof, beyond 50,000 cubic yards (38,228 m³).

23.105.106.1.3 Retaining wall inspections. Municipal inspections shall be scheduled at regular intervals based on the type of retaining wall system utilized.

23.105.106.1.3.1 Concrete or masonry retaining walls. Municipal inspections shall be scheduled at completed excavation, prior to concrete pouring or masonry grouting, and at backfill.

23.105.106.1.3.2 Segmental retaining walls. Municipal inspections shall be scheduled for segmental retaining walls at completed excavation, and at each lift between geosynthetic reinforcing.

23.105.106.1.3.3 Other retaining wall systems. Municipal inspections shall be scheduled as required by the building official.

23.105.106.2 Special inspections. Special inspections are required for all engineered grading. Special inspections shall be performed in accordance with Chapter 17 of the International Building Code.

23.105.107 Excavations.

23.105.107.1 General. Unless otherwise recommended in the approved soils engineering report, excavations shall conform to the provisions of this section.

Exception: The provisions of this section may be waived for excavations where final slopes are less than 1 unit vertical in 2 units horizontal (50% slope), where the excavation is isolated from existing structures and property lines, and the slopes of the excavation are not intended to support structures or surcharges.
23.105.107.2 Slope. The slope of excavation surfaces not be steeper than is safe for intended use, and shall not be steeper than 1 unit vertical in 2 units horizontal (50% slope) unless a slope stability analysis shows that a steeper slope is stable for static and seismic conditions, and does not create a hazard to public or private property.

23.105.108 Fills.

23.105.108.1 General. Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this section.

Exception: The provisions of this section may be waived for fills where final slopes are less than 1 unit vertical in 2 units horizontal (50% slope), where the fills are isolated from existing structures and property lines, and are not intended to support structures or surcharges.

23.105.108.2 Preparation of ground. Fill slopes shall not be constructed on natural slopes steeper than 1 unit vertical in 2 units horizontal (50% slope). The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other organics, non-complying fill, and other unsuitable or deleterious material.

23.105.108.2.1 Parking lots over organic soils. Structural fill for parking lot sections may be placed over peat and other organic soils where an approved geotechnical report provides recommendations for fill placement, and the site is designed by a registered design professional.

23.105.108.3 Fill material. Fill material shall not include organic, frozen, or other deleterious material. No rock or similar irreducible material with a maximum dimension of 12 inches (305 mm) shall be buried or placed in fills.

Exception: Organic soils may be used within the top 6 inches (152 mm) for surface landscaping.

23.105.108.4 Compaction. All fills shall be placed in lifts not exceeding 12 inches (305 mm) in thickness and compacted to a minimum of 90 percent of maximum density. Fills under structures, driveways, and parking lots shall be compacted to a minimum of 95 percent of maximum density.

23.105.108.5 Slope. The slope of fill sections shall not be any steeper than is safe for intended use, and shall be not be steeper than 1 unit vertical in 2 units horizontal (50% slope) unless a slope stability analysis shows that a steeper slope is stable for static and seismic conditions, and does not create a hazard to public or private property.
23.105.108.6 Temporary fills. Where permitted under Title 21, placement of material for stockpiling or surcharging shall be permitted without meeting the provisions of this section where the following are met:

1. The slopes are not steeper than 1 unit vertical in 3 units horizontal (33% slope);
2. The soils are stabilized against erosion as required in AMC 21.07.040;
3. Soils are removed to existing grade at final inspection.

23.105.109 Retaining walls.

23.105.109.1 Design. Retaining wall design and construction shall be designed in accordance with Section 1807.2 of the International Building Code.

23.105.109.2 Retaining wall setbacks. Where multiple retaining walls are located on the same slope, the combined retaining wall shall be analyzed together.

Exception: Where the toe of the upper retaining wall is located more than twice the height of the lower retaining wall measured from the back face of the lower wall to the front face of the upper wall per Figure 23.105.109.2.

![Figure 23.105.109.2 Retaining wall setbacks]

23.105.110 Setbacks.

23.105.110.1 General. Excavation and fill slopes shall be set back from the site boundary in accordance with this section. Setback dimensions shall be measured horizontally, and shall be perpendicular to the site boundary.
23.105.110.2 Top of excavation slope. The top of excavation slopes shall be set back from the site boundary not less than one-fifth the vertical height of the slope, but not less than 2 feet (610 mm), and need not exceed 10 feet (3,048 mm).

23.105.110.3 Toe of fill slope. The toe of fill slopes shall be set back from the site boundary not less than one-half the vertical height of the slope, but not less than 2 feet (610 mm), but need not exceed 20 feet (6,096 mm).

23.105.110.3.1 Slope protection. Where the fill slope is located near the site boundary and the adjacent off-site parcel is developed, special precautions shall be incorporated in the work as the building official deems necessary to protect the adjoining property from damage as a result of such grading. The precautions may include, but are not limited to:

1. Setback distances greater than those required by this section.
2. Provisions for retaining walls or similar construction.
3. Mechanical stabilization or chemical treatment of the fill slope surface to minimize erosion.

23.105.110.4 Modification of slope location. Setback locations may be modified when approved by the building official. Such modifications may require investigations and recommendations by a registered design professional, and shall show the intent of the code has been satisfied.

23.105.111 Benching and terracing.

23.105.111.1 General. Terraces shall be provided where final excavation or fill heights exceed 60 feet (18,288 mm), and final slopes exceed 1 unit vertical and 3 unit horizontal (33.3 percent slope). Benching shall be provided where the existing slopes exceed 1 unit vertical in 5 units horizontal (20% slope).

23.105.111.2 Terraces. Terraces shall meet the minimum width and vertical spacing per Table 23.105.111.2. Terraces with a slope height greater than 120 ft (36,576 mm) shall be designed by a registered design professional and approved by the building official.

<table>
<thead>
<tr>
<th>Table 23.105.111.2</th>
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<tbody>
<tr>
<td>Slope height</td>
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<tr>
<td>60 feet (18,288 mm)</td>
</tr>
<tr>
<td>Greater than 60</td>
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23.105.111.3 Benching. Benches shall be excavated per Figure 23.105.111.3 into the existing slope to allow for proper compaction. Bench widths shall be a minimum of 5 feet (1,524 mm) in width and shall have a slope no greater than 1 unit vertical in 5 units horizontal (5% slope). Benches shall be spaced consecutively where the existing slope exceeds 1 unit vertical in 5 units horizontal (20% slope). Bench heights shall not exceed the lesser of one-half the bench width, or 10 feet (3,048 mm), unless recommendations are provided by an approved soils report.

23.105.111.3.1 Keying. Benches shall have a key at the toe of the slope where the slope height exceeds 5 feet (1,524 mm). The key shall be a minimum depth of 2 feet (610 mm), and a length not less than 10 feet (3,048 mm).

Figure 23.105.111.3 Benching detail.

23.105.112 Drainage and erosion control.

23.105.112.1 General. Grading plans shall include a drainage plan conforming to the requirements of this code and AMC 21.07.040.

23.105.112.2 Standards. Drainage plans shall comply with the requirements of municipal code and the guidance of the Design Criteria Manual. Post-development drainage plans shall be designed such that there will be no adverse off-site impacts. Any net increase of water volumes shall be mitigated and/or directed to adjacent drainage
systems or receiving waters that has the demonstrated capacity to handle the new flows. The municipality may require a dedicated drainage easement(s) to ensure proper drainage is consisted and compatible with the surrounding drainage patterns.

23.105.112.3 Drainage across property lines. Drainage across property lines shall not exceed that which existed prior to earthwork construction. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices.

23.105.112.4 Erosion control. The faces of excavation and fill slopes shall be prepared and maintained to control against erosion. The protection shall be installed as soon as practicable and prior to scheduling final inspections. Where necessary, check dams, cribbing, riprap, or other suitable devices or methods shall be employed to control erosion and provide slope stability and safety.

Exception: Where cut slopes are not subject to erosion due to the erosion-resistant characteristics of the facing materials, such protection may be omitted.

23.105.113 Referenced Standards.
ASTM D 1557-e01, Test method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbs/ft³ (2,700 N-m/m³)).

CHAPTER 23.110 LOCAL AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE 2012 EDITION

Sections
23.110.101.2 Scope.
23.110.103–110 Delete.
23.110.103 Authority to render gas service.
23.110.202 General definitions.
23.110.302 Structural safety.
23.110.303.3 Prohibited locations.
23.110.303.4 Protection from vehicle impact damage.
23.110.303.8 Liquefied petroleum gas facilities.
23.110.304.6 Outdoor combustion air.
23.110.304.8 Engineered installations.
23.110.304.10 Louvers and grilles.
23.110.304.11 Combustion air ducts.
23.110.304.13 LPG systems.
23.110.305.3 Elevation of ignition source.
23.110.305.11 Installation in aircraft hangars.
23.110.306.3 Appliances in attics.
23.110.306.4 Appliances under floors.
23.110.306.5 Equipment and appliances on roofs or elevated structures.
23.110.306.7 Mezzanines and platforms.
23.110.307.2 Fuel burning appliances.
23.110.310 Electrical bonding.
23.110.403.10.1 Pipe joints.
23.110.403.10.2 Tubing joints.
23.110.403.10.4 Metallic fittings.
23.110.404.12 Minimum burial depth.
23.110.404.12.1 Individual outside appliances.
23.110.404.20 Ground penetrations.
23.110.404.21 Fuel gas piping connectors.
23.110.404.22 Frost heave protection for copper tubing.
23.110.404.23 Frost heave protection for above grade piping.
23.110.406.4.1 Test pressure.
23.110.406.8 Temporary gas provisions.
23.110.406.8.2 Temporary gas installations – permit not required.
23.110.411.2 Manufactured home connections.
23.110.417.0 Medium pressure gas.
23.110.501.7 Connection to fireplace.
23.110.501.8 Appliances not required to be vented.
23.110.502.8 Enclosure required.
23.110.502.9 Protection from sliding snow and ice.
23.110.503.3.6 Above ceiling air handling spaces.
23.110.503.5.5 Size of chimneys.
23.110.503.6.9.1 Category I appliances.
23.110.503.8 Venting system termination location.
23.110.503.10.4.2 Common vents for multiple appliances.
23.110.614.6.5.2 Manufacturer’s instructions.
23.110.614.6.6 Length identification.
23.110.618.4 Prohibited sources.
23.110.618.5 Screen.
23.110.618.7 Multi-zone systems.
23.110.621 Unvented room heaters.
23.110.623.7 Vertical clearance above cooking top.
23.110.623.8 Ventilating hoods.
23.110.629.2 Small ceramic kiln ventilation.
23.110.630.3 Combustion and ventilation air.
23.110.634 Chimney damper opening area.
23.110.Appendix A Sizing and capacities of gas piping.

The amendments to the International Fuel Gas Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the section of the International Fuel Gas Code to which the amendments refers, i.e., 23.110.210 refers to amendments to section 210 of the International Fuel Gas Code.

23.110.101.2 Scope.
Delete the exception.

23.110.103–110 Delete.
Delete sections 103 through 110. Refer to the Anchorage Administrative Code.

23.110.103 Authority to render gas service.
Add new sections to read as follows:

103.1 Unlawful acts. It shall be unlawful for any person, firm, or corporation, excepting an authorized agent or employee of a person, firm, or corporation engaged in the business of furnishing or supplying gas and whose service pipes supply or connect with the particular premises, to turn on or reconnect gas service in or on any premises where and when gas service is, at the time, not being rendered.

103.2 Authority to disconnect. The administrative authority or the serving gas supplier is hereby authorized to disconnect any gas piping or appliance, or both, found not to conform to the requirements of this code or found defective and in such condition as to endanger life or property. Where such disconnection is made, a notice shall be attached to such gas piping, appliance, or both stating the same has been disconnected, together with the reasons therefore.

23.110.202 General definitions.
Add new definitions as follows:

Connector fuel gas piping. A fitting that is used at all points where fuel gas piping enters or leaves the ground. Connector shall be capable of absorbing a displacement due to frost heave action. An example for low pressure systems would be a Dormont flex. An example for medium pressure would be CSST. An example for diameters greater than two inches would be a braided metal flex connector. (See amendment to section 404 Piping System Installation.) Rubber flexible connectors are not approved.

23.110.302 Structural safety.
Add the following section:
302.8 **Roof penetrations.** For roof construction regulated by the IRC:
1. No penetrations shall be located in required valley ice barrier.
2. All roof penetrations, excluding attic ventilation, shall be located a minimum of six feet from valley centerline and four feet from the exterior wall line measured on a horizontal plane.
3. All roof penetrations shall extend above the roof surface a minimum of 24 inches, except attic ventilation.
4. Type B gas vents may penetrate the eave ice barrier if installed within a 24 inches, wood framed, R-19 insulated curb, measured on the ridge side of the roof. The ice barrier shall extend up the curb a minimum of 12 inches on all sides. See AMC Chapter 23.85.R903.1 for detail.

23.110.303.3 **Prohibited locations.**
Amend section by deleting Exceptions 3 and 4, and add new Item No. 6, as follows:

6. Domestic gas-fired clothes dryers may be installed in bathrooms if provided with make-up air in accordance with section 614.5.

23.110.303.4 **Protection from vehicle impact damage.**
Add the following section:

303.4.1 **Appliances subject to vehicle impact.** Appliances, including their associated piping and ductwork, subject to vehicle impact shall be protected by one or more of the following methods:

1. Install the appliance on a platform a minimum of 24 inches high. The appliance shall not extend beyond the face of the platform. Piping and ductwork shall not be surface mounted to the platform in a location subject to vehicle impact.

2. Protect the appliance with a barrier. The barrier shall be a minimum of 30” high and be constructed of a minimum 2” diameter schedule 40 steel pipe. The barrier must have a minimum 6” setback from the platform or appliance. The maximum unprotected distance shall not exceed five (5) feet. The barrier shall be installed per one of the following methods:
   a. Buried a minimum of 2’0” deep in compacted soil and imbedded in concrete slab
   b. Set in a minimum 1’0” x 1’0” square by 1’0” deep block of concrete (slab not included).
   c. Secured to the wood framed garage floor with flange and stainless steel bolts and imbedded in concrete slab.
   d. Secured to the concrete slab using a floor flange with a minimum of four $\frac{3}{8}$” diameter by 3 ½” long galvanized or stainless anchor bolts.
3. Mount appliance and associated piping and ductwork to wall and/or suspend from the ceiling in a location clear of any potential vehicle interference.

In all cases the minimum clear width and depth of the garage shall be maintained in accordance with Title 21.

23.110.303.8  Liquefied petroleum gas facilities.
Add new section as follows:

303.8 Liquefied petroleum gas facilities. Liquefied petroleum gas facilities shall not be located in any pit, basement, crawlspace, under show windows, or interior stairways, in engine, boiler, heater, or electric meter rooms. LPG facilities include tanks, containers, container valves, regulating equipment, meters, and/or appurtenances for the storage and supply of LPG for any building structure or premises.

303.8.1 Liquefied petroleum gas piping. Liquefied petroleum gas piping shall not serve any gas appliance located in a pit or basement where heavier than air gas might collect to form a flammable mixture.

23.110.304.6  Outdoor combustion air.
Delete Figure 304.6.1(1).
Delete Figure 304.6.1(2).
Delete Alternate Opening Location in Figure 304.6.2.

23.110.304.8  Engineered installations.
Add a new section as follows:

Section 304.8.1 Cold climate alternate requirements for combustion and ventilation air.

304.8.1.1 Purpose. The purpose of this section is to provide alternate methods of designing combustion air and ventilation air systems for fuel burning appliances in cold climate regions. Only persons registered to practice engineering in the applicable jurisdiction will be permitted to use these alternate design methods.

304.8.1.2 Scope. The requirements of this section apply to all fuel gas burning appliances.

Exception: Direct vent appliances, listed cooking appliances having separated combustion system, enclosed furnaces, refrigerators and domestic clothes dryers.

304.8.1.3 Definitions.
Certain words and terms used in this section shall have meanings as listed. The below-listed definitions shall apply to this section only, even though they may differ with broader definitions found elsewhere in the code.

**Free area** is the net actual open area of a louver, screen, duct, or intake grille.

**Ventilation air** is air required for cooling of the appliance enclosure to maintain temperatures required for proper equipment operation.

### 304.8.1.4 General.

#### 304.8.1.4.1 Air supply.**

Fuel-burning equipment shall be provided with a sufficient supply of combustion and ventilation air.

**304.8.1.4.1.1 Enclosures containing fuel burning appliances.** Enclosures shall be provided with minimum unobstructed combustion air openings as specified in section 304.8.1.9 and arranged as specified in sections 304.8.1.5 and 304.8.1.6, and ventilation air systems shall be as specified in section 304.8.1.10.

**304.8.1.4.1.2 Existing buildings.** When fuel-burning appliances are installed in an existing building containing other fuel-burning equipment, the enclosure shall be provided with sufficient combustion and ventilation air for all fuel-burning equipment contained therein as specified in sections 304.8.1.9 and 304.8.1.10.

### 304.8.1.5 Combustion air openings.

#### 304.8.1.5.1 Location.

The combustion air opening(s) may be located anywhere in the enclosure provided there is an unobstructed area extended to the fire box that does not increase the total combustion air system static pressure requirements.

**304.8.1.5.2 Dampers prohibited.** Combustion air openings shall not be installed so as to open into construction where fire dampers are required. Volume dampers shall not be installed in combustion air openings.

**Exception:** Dampers electrically interlocked with the firing cycle of the appliance, so as to prevent operation of the appliance when the dampers are not proven open.
304.8.1.5.3 Screening. Combustion air openings shall be covered with corrosion-resistant screen of one-half (1/2) inch mesh, except as provided in section 304.8.1.7.3.

Exception: Combustion air openings serving a nonresidential portion of a building may be covered with a screen having openings larger than one-half (1/2) inch but in no case larger than one (1) inch.

304.8.1.6 Sources of combustion and ventilation air.

304.8.1.6.1 Air from outside. Combustion and ventilation air obtained from outside the building shall be supplied as follows:

1. Through permanent openings of the required area directly to the outside of the building through the floor, roof, or walls of the appliance enclosure; or
2. Through continuous ducts of the required cross-sectional area extending from the appliance enclosure to the outside of the building.

304.8.1.6.2 Interior spaces. Large indoor areas may be used for combustion and/or ventilation air if sufficient infiltration or other outside air supply is available by nature of the building construction, system design, or building use.

304.8.1.6.3 Prohibited sources. Openings and ducts shall not connect appliance enclosures with space where the operation of a fan may adversely affect the flow of combustion air. Combustion and ventilation air shall not be obtained from a hazardous location or from any area in which objectionable quantities of flammable vapor, lint or dust are given off. Combustion and ventilation air shall not be taken from a machinery room.

304.8.1.7 Combustion and ventilation air ducts.

304.8.1.7.1 General. Combustion and ventilation air ducts shall:

1. Be of galvanized steel complying with chapter 6 or equivalent corrosion-resistant material approved for this use.
2. Have a minimum cross-sectional dimension of three inches (3”).
3. Serve a single appliance enclosure.
304.8.1.7.2 Dampers. Combustion air ducts shall not be installed so as to pass through construction where fire dampers are required, unless properly enclosed in a rated shaft. Volume dampers shall not be installed in combustion air ducts.

Exception: Motor operated dampers interlocked with appliance controls to open damper prior to firing appliance are permitted, if damper blade actuated end switches are provided to prevent appliance operation should dampers fail to open.

304.8.1.8 Special conditions created by mechanical exhausting or fireplaces. Operation of exhaust fans, kitchen ventilation systems, clothes dryers or fireplaces shall be considered in determining combustion and ventilation air requirements to avoid unsatisfactory operation of installed fuel burning appliances.

304.8.1.9 Area of combustion air openings.

304.8.1.9.1 General. The free area of openings, ducts or plenums, screens and louvers supplying combustion air to enclosures containing fuel-burning appliances shall be as required: The opening(s) shall communicate directly or by means of ducts with outdoors or to such spaces (crawl space) freely communicating with outdoors and shall be sized in accordance with Table No. 304.8.1.1.

304.8.1.10 Ventilation air.

304.8.1.10.1 General. In addition to the combustion air required, sufficient ventilation shall be supplied for proper operation of equipment. Ventilation system shall be designed to maintain positive or atmospheric pressures within the enclosure. If exhaust fans are provided, a mechanical make-up air fan shall be installed to make-up exhausted air. Natural or gravity make-up air is not allowed.

<table>
<thead>
<tr>
<th>Fuels</th>
<th>System Static Pressure Limits†</th>
<th>Combustion Air Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmospheric</td>
<td>Forced Draft</td>
<td></td>
</tr>
<tr>
<td>Draft Hoods</td>
<td>Barometric Dampers</td>
<td>All Types</td>
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<tr>
<td>-------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>GAS (Natural, Propane, Butane)</td>
<td>0.02&quot; WG</td>
<td>0.02&quot; WG</td>
</tr>
</tbody>
</table>

**Note 1:** Static pressure values represent maximum static pressure losses across all components of the combustion air system including screens, louvers, ducts and fittings.

**Note 2:** For enclosures containing both atmospheric and forced draft appliances, the most restrictive design requirements shall apply.

PER ASHRAE 1993 FUNDAMENTALS HANDBOOK
CHAPTER 15 TABLE 11 (Pg 15.10)
1 cu. ft. natural gas requires 9.6 cu. ft. air
Convert to CF/1000 Btu
GAS: 9.6 cu. ft. air \( \times \) 1 cu. ft. gas = 9.6 cu. ft. air/1000 Btu
1 cu. ft. gas 1000 Btu (14.4 @ 50% excess)
*Air at 2000 feet above sea level. Installations above this shall derate appliance output 4%/1000 feet.

**EXAMPLE:** Combustion Air Flow Rates (CFM) per 100,000 Btuh input.
Verify heating values and adjust CFM as required.

<table>
<thead>
<tr>
<th>STOICHIOMETRIC COMBUSTION</th>
<th>AIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% EXCESS AIR @ 50% EXCESS</td>
<td>Natural Gas</td>
</tr>
<tr>
<td>1000 Btu/cu. ft.</td>
<td>100,000 Btuh</td>
</tr>
</tbody>
</table>

23.110.304.10 Louvers and grilles.
Delete the words “not smaller than 1/4 inch” and replace with “of 1/2 inch for residential and 1/2 inch up to one inch for commercial applications.”

23.110.304.11 Combustion air ducts.
Delete the exception to Item 1.

Delete Item 5 and replace with:
Combustion air shall not be obtained from the attic, unless prior written approval is obtained from the authority having jurisdiction.

Add an exception to item #6 as follows:
“Exception: This requirement does not preclude installation of a cold trap (upturned elbow). The installation shall maintain the free area of the combustion air duct.

Insert the following words at the beginning of Item 8:
Due to an anticipated snow depth of 12 inches,…

Change the reference of 12 inches to 24 inches in Item 8.

23.110.304.13 LPG systems.
Add new section as follows:

304.13 LPG systems. Appliances using LPG shall have two (2) combustion air openings. The lower opening shall be at floor level or below and shall be sloped down toward the exterior. These systems shall be continuously ducted to outside the building.

Use of under-floor areas for supply of combustion air to LPG burning appliances is prohibited.

23.110.305.3 Elevation of ignition source.
Amend section 305.3 by adding the following to the end of the paragraph:

Rooms and spaces that are not part of the living space of a dwelling unit shall include but are not limited to utility, storage, mud, laundry, toilet and bathing rooms.

Group F, M and S occupancies with overhead doors providing access to vehicles and equipment containing combustible fuel shall comply with this section.

Delete exception to 305.3.

23.110.305.11 Installation in aircraft hangars.
Replace Section 305.11 with the following:

305.11 Installation in aircraft hangars. Overhead appliances installed in aircraft storage areas shall be located at least 10' vertically above the upper surface of the wings or engine enclosures of the tallest aircraft which may be housed in the hangar.

**Exception:** Where a 10' vertical separation cannot be maintained in an NFPA 409 Class III hangar, a sealed combustion appliance may be used. The appliance shall be located as high and as far away from the wings and engine enclosure as possible. This exception shall not apply to NFPA 409 Class I and Class II hangars.

23.110.306.3 Appliances in attics.
Add Exception #3 as follows:

3. The passageway and level surface are not required for replacement of horizontal furnaces located above drop ceilings in strip malls. All other code requirements apply.
23.110.306.4 Appliances under floors.
Amend by adding the following as the first sentence:

Installation of appliances in under-floor crawlspaces is prohibited unless prior written approval is obtained from the administrative authority.

Add new exception to the amendment as follows:

Exception: Direct vent appliances may be installed as long as no water or sign of water is present and the installation is in accordance with IFGC 305.7.

23.110.306.5 Equipment and appliances on roofs or elevated structures.
Tag existing exception as #1

Add Exception #2 as follows:

2. Where equipment requiring access and appliances are installed on the roof of a new building or new building addition, such access shall be provided by a permanent, approved means, interior to the building, extending from floor level to the equipment and/or appliance’s level service space, regardless of the roof height. The bottom rung of the ladder shall be located within 14” of floor or grade.

23.110.306.7 Mezzanines and platforms.
Add a new section as follows:

306.7 Mezzanines and platforms. Every mezzanine or platform more than 10 feet 6 inches above the ground or floor level shall be made accessible by a stairway or ladder fastened to the structure. The ladder shall be constructed in compliance with the provisions of section 306.5.

23.110.307.2 Fuel burning appliances.
Replace "collected" with "piped through a factory-built condensate neutralizer sized and approved for the use".

Add a new sentence at the end of the amended sentence as follows:

Neutralized wastewater PH levels shall be elevated to a minimum PH of 7.

Add the following exception:
Exception: Condensate from Category III appliances may be run to an evaporative drain pan covering at least 144 square inches having a depth of at least one inch.

23.110.310 Electrical bonding.
Amend by adding a new section as follows:

310.2 Electrical bonding. Bonding to the electrical service grounding electrode system shall be in accordance with NEC 250.104(B).

23.110.403.10.1 Pipe joints.
Amend by adding the following at the end of the paragraph:

All joints in underground ferrous piping shall be welded when any of the following conditions apply:

1. The nominal pipe diameter is 2 ½ inches or larger.
2. The pipe is installed under a driveway.
3. The gas pressure is 2 psig or greater.

23.110.403.10.2 Tubing joints.
Amend by adding the following sentences at the end of the paragraph:

All joints in underground copper shall be brazed with wrought copper fittings. No underground joints shall be permitted unless the underground length of run exceeds sixty (60) feet. All pipe to tubing transitions shall be made above ground.

23.110.403.10.4 Metallic fittings.
Amend Item 2 by deleting the words “cast iron.”

Delete Item 5.

Add a new Item 9 as follows:

9. Right and left nipple couplings. Where unions are necessary, right and left nipples and couplings shall be used. Ground joint unions may be used at exposed fixture, appliance, or equipment connections and in exposed exterior locations immediately on the discharge side of a building shutoff valve.

23.110.404.12 Minimum burial depth.
Delete the wording “except as provided for in Section 404.12.1”

Amend by adding the following sentence to the end of the paragraph:

Plastic and copper gas piping shall have at least eighteen inches (18”) of earth cover or other equivalent protection.
23.110.404.12.1 Individual outside appliances.
Delete this section.

23.110.404.20 Ground penetrations.
Add a new section as follows:

404.20 Ground penetrations: At all points where fuel gas piping enters or leaves the ground, there shall be installed, above ground, an approved or listed fuel gas piping connector, capable of absorbing a six-inch (6") displacement, in any direction, due to frost heave action.

23.110.404.21 Fuel gas piping connectors.
Add a new section as follows:

404.21 Fuel gas piping connections: Fuel gas piping connectors listed for outdoor use may be used between the meter and house main. No flex connector may pass through any wall, partition, panel or other barrier. Solid fittings shall be used on each end.

23.110.404.22 Frost heave protection for copper tubing.
Add a new section as follows:

404.22 Frost heave protection for copper tubing. Copper tubing ground penetrations shall be protected from frost heave by the incorporation of a suitable above ground six-inch radius loop or a listed fuel gas piping connector of equal size.

23.110.404.23 Frost heave protection for above grade piping.
Add a new section as follows:

23.110.404.23 Frost heave protection for above grade piping. Above grade exterior piping routed between separate structures or between a structure and an exterior appliance installed on grade shall have an approved or listed fuel gas piping connector, capable of absorbing a six-inch displacement in any direction at each structure and each exterior appliance.

23.110.406.4.1 Test pressure.
Replace the reference to “1 ½” with “10”.

Replace the minimum test pressure of 3 psig with 10 psig and add the following sentences at the end of the paragraph:

Required pressure tests of 10 psig shall be performed with gauges of 1/10 psi increments or less.

Welded pipe shall be tested with not less than 60 psig test pressures.

23.110.406.8 Temporary gas provisions.
Add a new section as follows:
23.110.406.8  Temporary gas provisions.
The installation of temporary gas shall comply with sections 406.8.1 and 406.8.2.

A. Temporary gas approval is given to allow “comfort heating” appliances to be used to provide temporary heat to a building or building site prior to the completion of the building’s primary heating system.
B. The most commonly used appliance is a natural gas portable space heater. Other comfort heat appliances allowed for temporary heat purposes are warm air furnaces, boilers, and unit heaters. It is NOT the policy of the Building Safety Division or Enstar Natural Gas Company to allow “decorator fireplaces” or “ranges” to be utilized as temporary heat for buildings. These appliances are not designed or “listed” for such purpose.
C. All appliances used to provide temporary heat for buildings shall be installed in accordance with the manufacturers’ instructions and terms of their listing, with particular attention being paid to the clearances to combustibles from the top, bottom, front, back, and sides of these appliances.
D. Unit heaters used for temporary heat shall be installed per manufacturer’s instructions and listed clearances to combustibles from the top, bottom, front, back, and sides of these appliances. The vent connector shall be graded at ¼ inch per foot slope upward to the outside and it shall be changed to “B” vent at the wall penetration. The “B” vent must maintain its listed clearance to combustibles, extend a minimum of 5 feet vertically, and be secured.
E. Furnaces used for temporary heat shall comply with the same requirements as for unit heaters as stated above. In addition, the return air for the furnace shall be ducted a minimum of 10 feet from the furnace.
F. Portable space heaters shall be provided with 100 percent outside air to the back end of the heater. In most cases, the gas regulator attached to these heaters shall be piped to the outside. If the regulator vent discharges, it shall not be allowed to discharge into the space being heated.
G. Gas hose used for temporary heaters shall be a type approved by the Building Safety Division and all manufacturers’ listed clearances shall be maintained. The hose shall have an internal wire mesh or braid and be “kink proof”. Supporting wire shall run the full length...
of the hose. Each time a hose is moved from one lot to another, it shall be retested with 60 psig air pressure.

23.110.406.8.2 Temporary gas installations – permit not required.

A permit and inspection shall not be required for residential temporary construction heat serving tented footings and foundations. This provision is for thawing ground and curing concrete, not comfort heat for workers, such as plumbers installing underground. This allowance is limited to portable ‘SURE FLAME’ type heaters and not intended for unit heaters, furnaces, and boilers with special venting considerations. All heaters and hoses shall be of the approved type. Heaters shall be listed by an approved listing agency. All hoses shall have an internal wire mesh or braid, and be “kink proof”. Supporting wire shall run the full length of the hose. One hundred percent (100%) outside air shall be provided to heater at all times. Listed clearances to combustibles shall be maintained. A licensed journeyman plumber or gasfitter shall perform all work.

23.110.411.2 Manufactured home connections.

Add the following item to the section:

4. Pounds to inches water column regulators serving mobile homes and connected to copper tubing shall be attached to the exterior of the mobile home, and shall not be located under the mobile home.

23.110.417 Medium pressure gas.

Add a new section 417 as follows:

SECTION 417
MEDIUM PRESSURE GAS

417.1 Medium pressure gas. The installation of a medium pressure gas system (2 psig or 5 psig) within a building must be pre-approved by the local gas utility. Steel piping shall be welded. Test pressure for all medium pressure gas piping shall be 60 psig.

Exception: Medium pressure gas piping within mechanical room spaces, that house the equipment being served, shall be threaded or welded in accordance with IFGC 403.10. Threaded piping shall not be concealed within construction.

417.2 CSST medium pressure gas. The installation of a CSST medium pressure gas system (2 psig or 5 psig) within a building must be pre-approved by the local gas utility. Test pressure for all medium pressure gas piping shall be 60 psig. Joints shall be limited to the
meter connection and at the regulator to the appliance being served. Intermediate joints are not allowed without prior approval.

23.110.501.7 Connection to fireplace.
Add the following sentence to section 501.7:

Gas fired appliances shall not be connected to fireplace chimneys without prior approval of the Administrative Authority.

23.110.501.8 Appliances not required to be vented.
Delete Item 8 and Item 10.

23.110.502.8 Enclosure required.
Add the following section:

502.8 Enclosure required. Venting systems installed exterior to the building outside the thermal envelope shall be enclosed in an insulated (R-19 minimum) chase. The portion of the vent system above the last roof and its projected plane need not be enclosed. The portion of the venting system passing through an attic space need not be insulated or enclosed.

23.110.502.9 Protection from sliding snow and ice.
Add the following section:

502.9 Protection from sliding snow and ice. Vent terminations penetrating a metal roof with a pitch shall be protected by an ice dam or deflector of an approved type acceptable to the Administrative Authority.

23.110.503.3.6 Above ceiling air handling spaces.
Add the following sentence to Item No. 1:

The vent material shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E84.

23.110.503.5.5 Size of chimneys.
Item 2: Delete the phrase "and nor greater than seven times the draft hood outlet area" at the end of the sentence.

Item 3: Delete the phrase "and nor greater than seven times the draft hood outlet area" at the end of the sentence.

Add item 6: "In no case shall the gas vent be sized more than one pipe size larger than the minimum size required by the appliance sizing tables referenced in the code or the manufacturer's installation instructions."
23.110.503.6.9.1 Category I appliances.
Item 2: Delete the phrase ", nor greater than seven times the draft hood outlet area" at the end of the sentence.

Item 3: Delete the phrase ", nor greater than seven times the draft hood outlet area" at the end of the sentence.

Add item 5: "In no case shall the gas vent be sized more than one pipe size larger than the minimum size required by the appliance sizing tables referenced in the code or the manufacturer’s installation instructions."

23.110.503.8 Venting system termination location.
Amend by adding new Item 5 to read as follows:

5. An anticipated snow depth of 12 inches shall be used when determining the manufacturer’s minimum vent termination height. Measurements shall be made to the bottom of the vent outlet.

23.110.503.10.4.2 Common vents for multiple appliances.
Add a new section as follows:

503.10.4.2 Common vents for multiple appliances. When venting 3 or more Category I appliances, the common vent shall be a minimum Type "B" double wall.

23.110. Table 504.2
At the bottom of Tables 504.2(3) and 504.2(4), delete the category "maximum internal area of chimney (square inches)" and the wording "seven times the listed appliance categorized vent area, flue collar area, or draft hood outlet area".

23.110.504.2.9 Chimney and vent locations.
Change R8 to R19 in last sentence of paragraph.

23.110.504.3.20 Chimney and vent locations.
Change R8 to R19 in last sentence of the first paragraph.

23.110.505.1.1 Commercial cooking appliances vented by exhaust hoods.
Delete the following words:

“and the appliances shall be interlocked with an exhaust hood system to prevent appliance operation when the exhaust hood system is not operating.”

Add the following to the end of the last sentence:

“unless part of the listed system.”
23.110.614.6.5.2 Manufacturer's instructions.
Add the following exception:

Exception: For distances exceeding the dryer manufacturer’s recommendations, a booster fan, listed for the purpose, shall be used for lengths up to the booster fan manufacturer’s recommendations.

23.110.614.6.6 Length identification.
Replace the words "equivalent length" with the words "total length plus total number of elbows".

Add to the end of the paragraph:

"and shall be laminated or in a moisture resistant sleeve secured to the wall using screws, staples, or thumb tacks. Push pins are not acceptable."

23.110.618.4 Prohibited sources.
Change the wording to the first half of the sentence to read, "Outdoor, return, or transfer air for a forced air heating system....".

Replace the wording of subparagraph #7 to simply read "crawl space".

23.110.618.5 Screen.
Change ¼ to ½ in both places.

23.110.618.7 Multi-zone systems.
Replace 618.7 with the following:

618.7 Multi-zone systems. Prior to final inspection, the installer shall measure and record the temperature rise across the heat exchanger under all possible scenarios. The temperature rise shall be within the furnace nameplate rating. At the time of the final inspection, the installer shall submit the test results to the mechanical inspector. Since the inspector may require an additional test in his/her presence to verify the results, the installer shall be present. If the results show the furnace is not operating within its listed parameters under all possible scenarios, the test shall be noted as failed. The installer shall be responsible for correcting any deficiencies and demonstrating proper operation of the furnace.

23.110.621 Unvented room heaters.
Delete section 621 in its entirety.

23.110.623.7 Vertical clearance above cooking top.
Delete the words: "with a clearance of not less than ¼" (6.4 mm) between the hood and the underside of the combustible material or metal cabinet" from Item #2
23.110.623.8  Ventilating hoods.
Add new subsection 623.8 to read as follows:

623.8 Ventilating hoods. Ventilating hoods shall be installed over all
domestic free standing or built-in ranges, unless the range is otherwise
listed for forced down draft ventilation. The hood or ventilation system
shall exhaust to exterior of the building.

23.110.629.2  Small ceramic kiln ventilation.
Add a new subsection 629.2 to read as follows:

629.2 Small ceramic kiln ventilation. A canopy-type hood shall be
installed directly above each kiln. The face opening area of the hood
shall be equal to or greater than the top horizontal surface area of the
kiln. The hood shall be constructed of not less than 0.024-inch (No. 24
U.S. gauge) galvanized steel or equivalent and be supported at a height
of between 12 inches and 30 inches above the kiln by noncombustible
supports.

Each hood shall be connected to a gravity ventilation duct extending in a
vertical direction to outside the building. This duct shall be of the same
construction as the hood and shall have a minimum cross-sectional area
of not less than one fifteenth of the face opening area of the hood. The
duct shall terminate a minimum of 12 inches above any portion of a
building within 4 feet and terminate no less than 4 feet from any
openable windows or other openings into the building or adjacent
property line. The duct opening to the outside shall be shielded, without
reduction of duct area, to prevent entrance of rain into the duct. The
duct shall be supported at each section by noncombustible supports.

Provisions shall be made for air to enter the room in which a kiln is
installed at a rate at least equal to the air being removed through the kiln
hood.

23.110.630.3  Combustion and ventilation air.
Delete this section in its entirety

23.110.634  Chimney damper opening area.
Delete section 634.

23.110. Appendix A  Sizing and capacities of gas piping.
Adopt Appendix A.

Section 2. Any amendments to Title 23 enacted with passage of AO 2015-111
or its successor ordinance, if any, are hereby adopted and incorporated with Title
23 as reenacted hereto.
Section 3. This ordinance shall be effective April 1, 2016 [immediately upon passage and approval by the Assembly].

PASSED AND APPROVED by the Anchorage Assembly this 8th day of March, 2016.

Chair of the Assembly

ATTEST:

Barbara A. Jones

Municipal Clerk