

# Ordinance No. 1169

**AN ORDINANCE to amend the Code of the City of Alexandria, Virginia, 1953, as amended by adding a new chapter thereto numbered 7, which new Chapter numbered 7 constitutes THE NEW BUILDING CODE OF THE CITY OF ALEXANDRIA, VIRGINIA, which new Chapter 7 adopts and incorporates therein by reference that certain building code recommended, promulgated and published by the Building Officials Conference of America, Inc., styles the BASIC BUILDING CODE, commonly known as the BOCA CODE, being particularly the 1955 edition thereof, and which new Chapter 7 makes certain deletions, modifications, changes, additions and amendments in said BASIC BUILDING CODE; all of which relates to the ADOPTION OF A NEW BUILDING CODE FOR THE CITY OF ALEXANDRIA, VIRGINIA, THE ESTABLISHMENT OF A DEPARTMENT OF CONSTRUCTION AND INSPECTION AND RULES AND REGULATIONS FOR THE INSPECTION, CONSTRUCTION, ALTERATION, REPAIR, REMOVAL, DEMOLITION, EQUIPMENT, USE AND OCCUPANCY, LOCATION AND MAINTENANCE OF BUILDINGS AND STRUCTURES AND MACHINERY, THE ISSUANCE OF PERMITS, COLLECTION OF FEES, ESTABLISHMENT OF FIRE DISTRICTS AND THE IMPOSITION OF PENALTIES FOR VIOLATIONS.**

WHEREAS, five copies of this ordinance have been and now are filed in the office of the Director of Construction and Inspection at the City Hall, Alexandria, Virginia, where they may also be viewed, examined and obtained between the hours of 9 A.M. and 5 P.M. Monday through Friday inclusive of each week, except for holidays; therefore

THE CITY COUNCIL OF ALEXANDRIA HEREBY ORDAINS:

Section 1. That the Code of the City of Alexandria, Virginia, 1953, as amended, be and the same hereby is amended by adding thereto a new Chapter numbered 7 to read as follows:

## CHAPTER 7—BUILDING CODE

### Sec. 7-1. Title.

This Chapter shall be known and may be cited as the "Building Code of the City of Alexandria, Virginia."

### Sec. 7-2. BOCA Code Adopted.

That certain building code known as the Basic Building Code, recommended, promulgated and published by the Building Officials Conference of America, Inc., being particularly the 1955 edition thereof, be and the same hereby is adopted and incorporated herein as fully as if set out at length.

### Sec. 7-3. BOCA Code, Official Copy.

One copy of said Basic Building Code, to be known as the Official Copy, shall be manually signed on its cover by the Mayor and the Director of Construction and Inspection and filed in the Office of the

Director of Construction and Inspection in the City Hall, City of Alexandria, Virginia, for reference and safekeeping.

**Sec. 7-4. BOCA Code, Copies for Public Inspection.**

At least five (5) copies of said Basic Building Code shall be placed in the office of the Director of Construction and Inspection in the City Hall, Alexandria, Virginia, where they may be viewed, examined and obtained between the hours of 9 A.M. and 5 P.M. Monday through Friday inclusive of each week, except for holidays.

**Sec. 7.5. BOCA Code, Deletions, Modifications, Changes, Additions and Amendments, Official Copy.**

One copy of each ordinance adopting deletions, modifications, changes, additions or amendments to said Basic Building Code, to be known as the Official Copy, shall be manually signed on its first page by the Mayor and the Director of Construction and Inspection and filed in the office of the Director of Construction and Inspection in the City Hall, City of Alexandria, Virginia, for reference and safekeeping.

**Sec. 7-6. BOCA Code, Deletions, Modifications, Changes, Additions and Amendments, Copies for Public Inspection.**

At least five (5) copies of each ordinance adopting deletions, modifications, changes, additions and amendments to said Basic Building Code shall be placed in the office of the Director of Construction and Inspection, City Hall, Alexandria, Virginia, where they may be viewed, examined and obtained between the hours of 9 A.M. and 5 P.M. Monday through Friday inclusive of each week, except for holidays.

**Sec. 7-7. Definitions.**

(1) Wherever the words "municipality" or "name of municipality" are used in the Basic Building Code, they shall mean the City of Alexandria, Virginia.

(2) Wherever the words "Building Official" are used in the Basic Building Code, they shall mean the Director of Construction and Inspection of the City of Alexandria, Virginia, or his duly authorized agent.

**Sec. 7-8. Change in BOCA Code.**

That the Building Code known as the Basic Building Code, 1955 Edition, recommended, promulgated and published by the Building Official Conference of America, Inc., and which is adopted and incorporated herein in Section 7-2, be and the same hereby is deleted, modified, changed, added to and amended in the following respects:

(1) Section 101.3 is deleted.

(2) Section 104.0 is amended by deleting the first sentence thereof and substituting the following sentence in its place and stead:

All buildings and structures and all parts thereof, both existing and new, shall be maintained in a safe condition.

(3) Section 104.1 is amended to read:

The owner or his designated agent shall be responsible for the safe maintenance of the building or structure and its exit facilities at all times.

(4) Section 106.0 is amended to read:

Alterations to existing buildings shall be made to conform to the full requirements of the Basic Code, except, that the Building Official shall permit the restoration and alteration of those buildings, constructed prior to 1860, with the same kind of materials as those of which the building was constructed; provided that such restoration and alteration does not endanger the general safety and public welfare, and complies with the provisions of Section 929 in respect to existing roofs. Whether or not a building was constructed prior to 1860 shall be determined by the Historic Alexandria Foundation or the Alexandria Historical and Preservation Commission.

(5) Section 106.1 is deleted.

(6) Section 106.2 is deleted.

(7) Section 106.3 is deleted.

(8) Section 106.4 is amended to read:

Buildings of Type 4 construction, when located within Fire District Number One or Fire District Number Two, which have become damaged by fire, decay, or otherwise, to an extent of more than one-half of their physical value, shall be made to conform to the full requirements of the basic code for new buildings.

(8A) That the period at the end of Section 106.5 be changed to a comma and the following added to said Section 106.5:

except, a building other than Type 4 construction, constructed prior to 1860. Whether or not a building was constructed prior to 1860 shall be determined by the Historic Alexandria Foundation or the Alexandria Historical and Preservation Commission.

(8B) That the period at the end of Section 106.7 be changed to a comma and the following be added to Section 106.7:

except, that in determining the physical value of buildings constructed prior to 1860, the City Assessor will use his usual method of assessment, including a factor for antique value. Whether or not a building was constructed prior to 1860 shall be determined by the Historic Alexandria Foundation or the Alexandria Historical and Preservation Commission.

(9) Section 106.7 is amended to read:

In applying the provisions of this section, the physical value of the building shall be determined by the City Assessor based on current replacement costs.

(10) Section 107.0 is amended to read:

DEPARTMENT OF CONSTRUCTION AND INSPECTION.

(11) Section 107.1 is deleted and the following substituted:

**107.1 DEPARTMENT OF CONSTRUCTION AND INSPECTION,  
BUILDING OFFICIAL**

There is hereby established, under the City Manager, a department to be known as the Department of Construction and Inspection. The head of the Department of Construction and Inspection shall be

known as the Director of Construction and Inspection, hereinafter described as the Building Official.

(12) Section 108.0 is amended by adding thereto the following paragraph:

The Building Official, under the City Manager, shall have general direction of the Department of Construction and Inspection. He shall, when authorized by the City Manager or by law, administer such rules, regulations and laws as may be applicable to the municipal services of the City, and he shall also perform such other compatible duties as may be properly assigned to him.

(13) Section 110.0 through 110.2 inclusive are deleted.

(14) Section 111.5 is amended to read:

Upon completion of the building or structure, and before issuance of the certificate of use and occupancy required in Chapter 35 of the City Code, a final inspection shall be made and all violations of the approved plans and permit shall be noted and the holder of the permit shall be notified of the discrepancies.

(15) Section 112.0 is amended to read:

In the discharge of his duties the Building Official or his duly authorized representatives are hereby authorized to enter any building, structure or premises in the City at any reasonable hour during daylight in order to enforce the provisions of the Basic Code.

(16) Section 113.5 is amended to read:

The application for the permit shall be accompanied by not less than two (2) copies of specifications and of plans drawn to scale, with sufficient clarity and detail dimensions to show the nature and character of the work to be performed. When quality of materials is essential for conformity to the Basic Code, specific information shall be given to establish such quality; and in no case shall the code be cited or the term "legal" or its equivalent be used as a substitute for specific information. The building official may waive the requirement for filing plans when the work involved is of a minor nature and it is also apparent that no accepted building or engineering practice involving safety will be violated and the public safety, health and general welfare will not otherwise be jeopardized.

Plans and specifications for all structures governed by this code, except those listed in Schedule I below which in the opinion of the Building Official would not involve the public health, safety and welfare, shall be prepared by an Architect or Professional Engineer duly registered and licensed to practice architecture and/or engineering in and by the Commonwealth of Virginia under the terms of Chapter 3, Section 54, Code of Virginia. Evidence, satisfactory to the Building Official, of such registration and license being in current force shall be presented to him prior to his issuing building permit for any structure governed hereby.

**SCHEDULE I:**

- Use Group B-1, one story, up to 3,000 sq. ft. gross area.
- Use Group B-2, one story, up to 6,000 sq. ft. gross area.
- Use Group C, one story, up to 3,800 sq. ft. gross area.

- Use Group D, one story, up to 8,000 sq. ft. gross area.
- Use Group E, one story, up to 2,500 sq. ft. gross area.
- Use Group L-1, one story, up to 5,000 sq. ft. gross area.
- Use Group L-2, one story, up to 5,000 sq. ft. gross area.
- Use Group L-3, up to 3,000 sq. ft. gross floor area.
- Use Group M, one story, up to 1,000 sq. ft. gross area.

(17) Section 113.6 is amended to read:

There shall also be filed a plot plan showing to scale the size and location of all the new construction and all existing structures on the site, correct distances from the furthestmost projection of buildings to the nearest lot lines and any existing or proposed driveways and parking areas; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the plot plan shall show all construction to be demolished and the location and size of all existing buildings and construction that are to remain on the site or plot.

(18) Section 113.8 is amended to read:

Subject to the limitations of section 113.9 amendments to a plan, application or other records accompanying the same may be filed at any time before completion of the work for which a permit is sought or issued; any amendment which changed the physical location of any building or affects the original plot diagram shall contain a new plot diagram showing such new changes; and such amendments shall be deemed part of the original application and shall be filed therewith.

(19) Section 114.0 is amended by adding a new section numbered 114.10 thereto to read:

#### **114.10 NAMES FURNISHED**

Before construction begins on any division of the work, the name of the general contractor and the list of subcontractors shall be furnished to the Building Inspection Department.

(20) Section 114.2 is amended to read:

Any permit issued shall become invalid if the authorized work is not started within six (6) months of the date of issue or is suspended or abandoned for a period of six (6) months after the time of starting.

(21) Section 114.7 is amended to read:

The building official may issue a permit for the construction of foundations or any other part of a building or structure before the entire plans and specifications for the whole building have been submitted, provided adequate information and detailed statements have been filed complying with all the pertinent requirements of the Basic Code. The building official may also issue a partial permit when accepted engineering practice indicates that a demonstration of safety is desirable before further operations are permitted. The holder of such permit for the foundations or other part of a building or structure shall proceed at his own risk with the building operation and without assurance that a permit for the entire structure will be granted.

(22) Section 115.0 is amended by adding a new section numbered 115.6 thereto to read:

**115.6 SURVEY PLAT**

When the building footing has been placed and the walls have been raised to the joist bearing or story height, a plot plan showing the exact location of said walls shall be prepared by a licensed certified public land surveyor or engineer and filed with the building official for approval before proceeding further with the construction.

(23) Section 115.0 is amended by adding thereto a new section numbered 115.7 to read:

**115.7 SANITARY SEWER AND STREET GRADES**

Before any building permit is issued for the erection, operation or repair of any building or structure for assembly or human habitation, provision for connection to a sanitary sewer if available must be made and the fees required by law paid. In addition, the Director of Public Works must be satisfied that any such sewer connection is adequate with respect to size and grade, and that the building to be constructed will be at a grade in accordance with established street grades. Certification by a licensed architect or engineer on the plans that a physical check has been made, that sewer is available and that the proposed sewer is adequate with respect to size and grade may be accepted in lieu of approval of sewer plans by the Director of Public Works.

(24) Section 116.1 is amended to read:

Except in cases of emergency before a building can be demolished or removed, the owner or agent shall notify all utilities having service connections within the building such as water, electric, gas, sewer and other connections. A permit to demolish or remove a building shall not be issued until a release is obtained from the utilities, stating that their respective service connections and appurtenant equipment, such as meters and regulators, have been removed or sealed and plugged in a safe manner.

(25) Section 118.0 is amended to read:

Before any permit for the construction of a new building, addition or enlargement is issued, the owner or the person, firm or corporation doing the work shall pay to the City Treasurer a fee based on the superficial area of all floors, including basements and roofs as follows:

The minimum fee for any permit shall be Five Dollars (\$5.00). The fees for non-fireproof buildings shall be One Cent (\$.01) per superficial square foot, plus seven tenths of one percent (.7%) of the actual cost of labor and material.

For fireproof or non-combustible buildings the fee shall be One and One-half Cents (\$.015) per superficial square foot, plus seven tenths of one percent (.7%) of the actual cost of labor and material.

In computing the fee for industrial buildings over twenty-four (24) feet high, the vertical height shall be divided by twelve (12) and the quotient shall be the number of stories, but this method of computation shall not apply to church or similar

buildings having auditoriums which exceed twenty feet in height. Height shall be defined as the vertical distance between the finished floor and the finished ceiling or the bottom of the ceiling joists.

Before any permit for the repair or alteration of any building or structure where there is no addition or enlargement or for the installation of an air conditioning system is issued, the owner or the person, firm or corporation doing the work shall pay a fee calculated at the rate of one and two tenths percent (1.2%) of the actual cost of the work including labor and material.

The fee for a permit for excavation and/or foundation work pertaining to any building that is issued prior to the permit for the construction of the building shall be Five Dollars (\$5.00) for each building.

When a fee is payable due to the submission of revised drawings, said fee shall be not less than Five Dollars (\$5.00).

The fee for the installation permit for each freight elevator and for each passenger elevator shall be Twenty-five Dollars (\$25.00), plus seven tenths of one percent (0.7%) of the total costs of installation including labor and material.

The fee for the installation permit for each dumbwaiter shall be Ten Dollars (\$10.00), plus seven tenths of one percent (0.7%) of the total costs of installation including labor and material.

Before any permit for the erection of any sign, or for repainting an existing sign which has at some time been legally authorized, is issued, the owner or the person, firm or corporation doing the work shall pay a fee scheduled as follows:

The minimum fee for any permit to erect a neon sign shall be Five Dollars (\$5.00).

For signs with an area over one hundred square feet, the fee shall be Fifteen Dollars (\$15.00), plus seven tenths of one percent (.7%) of the actual cost including labor and material; for signs with an area of seventy-five to one hundred square feet, the fee shall be Ten Dollars (\$10.00) plus seven tenths of one percent (.7%) of the actual cost including labor and material; for signs with an area of twenty-five to seventy-five square feet, the fee shall be Five Dollars (\$5.00), plus seven tenths of one percent (.7%) of the actual cost including labor and material; and for signs with an area of less than twenty-five square feet, the fee shall be Two Dollars (\$2.00), plus seven tenths of one percent (.7%) of the actual cost including labor and material. For repainting an existing sign which has at some time been legally authorized, the permit fee shall be Three Dollars (\$3.00).

Any permit issued by the building official pursuant to the provisions of this section, under which no work is commenced within three months, may be cancelled upon the application of the owner and the City Council shall refund fifty percent (50%) of the fee paid for such permit.

(26) Section 118.1 is amended to read:

#### **MACHINERY FEES AND INSPECTION**

Before any permit for the installation or use of any machinery, appliance or equipment in any manufacturing plant or establishment in the City is issued, a fee of one-fifth of one percent of the cost of such machinery, appliance or equipment and the installation thereof shall be paid to the City Treasurer.

No machinery, appliance or equipment shall be installed or used in any manufacturing plant or establishment in the City of Alexandria, Virginia, without first obtaining a permit for the installation and use thereof.

For the purpose of this section, the words "manufacturing plant or establishment" shall be construed to include but shall not be limited to the following:

- a. The manufacturer, compounding, assembling or treatment of articles of merchandise from the following previously prepared materials: Bone, cellophane, canvas, cloth, cork, feathers, felt, fibre, fur, glass, hair, horn, leather, paper, plastics, precious or semi-precious metals or stone, shell, textiles, tobacco, wood (excluding planing mill), yarns and paint.
- b. Abattoir.
- c. Ammonia, chlorine or bleaching powder manufacture.
- d. Asphalt manufacture or mixing plant.
- e. Arsenal.
- f. Celluloid manufacture or treatment.
- g. Disinfectants manufacture.
- h. Distillation of bones, coal or wood.
- i. Exterminators and insect poisons manufacture.
- j. Fertilizer manufacture.
- k. Forge plant.
- l. Gas manufacture.
- m. Gunpowder manufacture or storage.
- n. Fireworks or explosives manufacture or storage.
- o. Incineration or reduction of dead animal's offal or garbage.
- p. Lampblack manufacture.
- q. Oilcloth or linoleum manufacture.
- r. Oiled, rubber or leather goods manufacture.
- s. Paint, oil, shellac, turpentine or varnish manufacture.
- t. Petroleum refining, or storage in more than tank car lots.
- u. Rolling mill.
- v. Rubber or gutta percha manufacture or treatment.
- w. Sauerkraut manufacture.
- x. Sausage manufacture.
- y. Soap manufacture.
- z. Soda and compound manufacture.
- aa. Sulphuric, nitric or hydrochloric acid manufacture.
- bb. Tanning, curing or storage of leather, raw hides or skins.

- cc. Tar distillation or manufacture.
- dd. Tar roofing or tar waterproofing manufacture.
- ee. Vinegar manufacture.
- ff. Yeast plant.
- gg. Assembly plant.
- hh. Refuse incinerators with a burning capacity of more than 50 tons per day.
- ii. Public utility where manufacturing treatment or processing is conducted.
- jj. Electric or atomic power generating, processing or treatment plant.
- kk. Any other manufacturing, processing, compounding, assembling or treatment that may use any of his authorized assistants and may, subject to the approval of the City Manager, use the services of any other department of the City.

The building official shall conduct the inspection of the machinery, appliances and equipment in any such manufacturing plant or establishment. In conducting such inspection, the building official may use any of his authorized assistants and may, subject to the approval of the City Manager, use the services of any other department of the City.

In addition, where expert technical assistance is requested by the building official, the City Manager is authorized to employ and consult with such experts as he, the City Manager, may deem necessary.

The above mentioned inspections shall be made in order to protect the public welfare, health and safety by minimizing the hazards and nuisances that may arise by virtue of the installation and use of such machinery and equipment.

The building official shall refuse to issue a permit for either the installation or use of any such machinery, appliance, or equipment that does not conform to good engineering practice or does not minimize in so far as reasonably possible the danger of nuisance from noise, smoke, dust, gas, odor, fire, explosion, water pollution, air pollution or radiation.

(27) Sections 118.2 through 118.7 inclusive are deleted.

(28) Sections 119.0 through 119.3 inclusive are deleted.

(29) Sections 120.0 and 120.1 are deleted.

(30) Sections 121.0 through 121.6 inclusive are deleted.

(31) Section 123.2 is amended to read:

If the notice of violation is not complied with promptly the building official may request the legal counsel of the municipality to aid in the prosecution of the violation or 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 use of the building or structure in violation of the provisions of the Basic Code or of the order or direction made pursuant thereto.

(32) Section 123.3 is amended to read:

Any person who shall violate a provision of the Basic Code or shall fail, neglect or refuse to comply with any of the requirements thereof or who fails, neglects or refuses to comply with any order or notice issued thereunder or who shall erect, construct, reconstruct, restore, alter or repair a building or structure in violation thereof or in violation of an approved plan or directive of the building official or of a permit or certificate issued under the provisions of the Basic Code, shall be deemed guilty of a misdemeanor and on conviction shall be fined not less than Ten Dollars (\$10.00) nor more than One Hundred Dollars (\$100.00). The imposition of one penalty for any violation shall not excuse the violation or permit it to continue and each day that a violation continues to exist shall constitute a separate offense.

(33) Section 123.0 is amended by adding a new section numbered 123.5 thereto to read:

#### 123.5 CONTINUATION OF UNLAWFUL USE

The continuation of occupancy or use of a building or structure, or a part thereof, contrary to the provisions of the Basic Code, shall be deemed a violation and subject to the penalties prescribed in Section 123.3.

(34) Section 124.2 is amended to read:

It shall be unlawful for any person to continue any work in or about any building or structure after having been served a stop order, except such work as he is directed to perform to remove a violation or unsafe condition.

(35) Section 125.1 is amended to read:

All buildings and structures that are or hereafter become unsafe as defined in Section 125.6 are hereby declared to be public nuisances and shall be taken down and removed or repaired, and reconstructed so as to be safe and secure so that they will no longer exist in violation of the provisions of Section 125.6.

(36) Section 125.2 is amended to read:

The building official shall examine every building or structure reported as dangerous or unsafe structurally; and he shall cause the report to be filed in a docket of unsafe structures and premises, stating the use of the building, the nature and estimated extent of damages, if any, caused by collapse or failure.

(37) Section 125.3 is amended to read:

If an unsafe condition is found in a building or structure, the building official shall serve or cause to be served on the owner, agent or person in control of the building or structure a written notice describing the building or structure deemed unsafe and ordering the unsafe building or structure or portion thereof to be repaired and reconstructed or demolished within a stipulated time. Such notice shall require the person thus notified to immediately declare to the building official his acceptance or rejection of the terms of the order within forty-eight (48) hours.

(38) Section 125.4 is amended to read:

A building or structure found to be unsafe by the building official may be repaired or reconstructed so that it is restored to a safe and secure condition, provided that such repair or reconstruction shall be made to comply in all respects with the requirements for materials and methods of construction of buildings or structures hereafter erected.

(39) Section 125.6 is amended to read:

#### 125.6 UNSAFE BUILDINGS OR STRUCTURES DEFINED

All buildings or structures which have one or more of the following defects shall be deemed unsafe:

- (a) Those whose interior walls or other vertical structural members list, lean or buckle to such an extent that a plumb line passing through the center of gravity falls outside the middle third of its base.
- (b) Those which, exclusive of the foundation, show fifty (50) percent or more of damage or deterioration of the supporting member or members, or fifty (50) percent of damage or deterioration of the non-supporting enclosing or outside walls or covering.
- (c) Those which have improperly distributed loads upon the floors or roofs or in which the same are overloaded, or which have insufficient strength to be reasonably safe for the purpose used.
- (d) Those which have become so dilapidated, deteriorated, unstable, decayed or otherwise unsafe that they are likely to cause injury to inhabitants, the public or other property.
- (e) Those which have parts thereof which are so attached that they may fall and injure inhabitants, members of the public or property.
- (f) Those which are unoccupied and unattended and have open doors or windows.
- (g) Those which are deficient in adequate exit facilities.

(40) Section 126.2 is amended to read:

When in the opinion of the building official there is actual and immediate danger of collapse or failure of a building or structure or any part thereof which would endanger life, he shall immediately attempt to contact the owner or the owner's agent. If he makes such contact he shall advise of the danger and order the owner to forthwith cause the necessary work to be done to render such structure or building or part thereof temporarily safe. In the event the building official is unable to immediately contact the owner or the agent, or after making such contact the owner or his agent, refuses, fails or neglects to take immediate action to render such building or structure or part thereof temporarily safe, the building official shall cause the necessary work to be done to render the same temporarily safe.

(41) Section 127.1 is amended by adding the following thereto:  
. . . accompanied by a fee of \$25.00 to aid in defraying the costs of the survey.

(42) Section 127.2 is amended to read:

The board of Survey shall consist of three persons, one of whom shall be a disinterested licensed architect, structural engineer or builder appointed by the City Manager; another shall be a disinterested licensed architect, structural engineer or builder designated by the owner; and the third shall be a disinterested licensed architect, structural engineer or builder chosen jointly by the two members already designated or appointed by a Judge of a Court of Record in the City of Alexandria in case of failure of agreement.

(43) Section 127.3 is amended by inserting in the appropriate blank therein the following: 25.

(44) Section 127.42 is deleted.

(45) Section 128.1 is amended by adding the following sentence thereto:

Applications for appeal shall be in writing and shall be accompanied by a fee of Fifty Dollars (\$50.00) to aid in defraying the costs of the appeal.

(46) Section 129.1 is amended to read:

**PLANS**

All plans shall be stamped "Building is designed in accordance with the Building Code of the City of Alexandria, Virginia" and shall be signed by the architect, engineer, designer or owner.

(47) Section 129.2 is amended to read:

When applications for unusual designs or magnitude or construction are filed, the building official may refer such plans and specifications to the Building Officials Conference for advice and recommendations as to their safety of design and compliance with the Basic Code; or he may, in his discretion, retain a properly qualified licensed engineer or registered architect to examine such application for a specific building operation with respect to safety and conformance to statutory requirements.

(48) Sections 129.11 through 129.13 inclusive are deleted.

(49) Section 201.2 is amended by deleting the definitions for the words building, one-family dwelling, two-family dwelling, and story, substituting therefor the following respective definitions:

**Building**—a structure having a roof for the shelter, support or enclosure of persons, animals, chattels or property of any kind.

**One-family dwelling**—a detached building, designed for or intended to be occupied by one (1) family.

**Two-family dwelling**—a building designed for or intended to be occupied by not over two (2) families, living independently of each other. This shall include both duplex (one dwelling unit above another) and semi-detached (two dwelling units having a common vertical party wall).

**Story**—a division in a building comprising the space between two successive floors, or between a floor and roof where any portion of the attic or roof space has a clear height of seven feet six inches (7' 6") or over, and shall include basements and cellars. A mezzanine will not be considered as a story. For the purposes of these regulations, one basement or cellar will not be considered as a story provided the highest portion of the finished floor over such basement or cellar is not more than five (5) feet above the level of the lowest of the sidewalks, alleys, or ground adjacent to the building; the heights of sidewalks, alleys, or ground to be taken opposite the middle of the portion of the building adjacent to such sidewalks, alleys or ground.

(50) Section 206.1 is amended deleting from Table 4 thereof the following classifications:

upholstery and manufacturing shops.

(50A) Section 209.2 is amended by deleting therefrom the following classification:

day nurseries.

(51) Article 2 is amended by adding thereto a new Section numbered 217.4 to read:

#### **217.4 ADDITIONAL REQUIREMENTS**

(a) Any building three or more stories in height, or over thirty (30) feet in height, constructed or used or intended to be used as a tenement house, apartment house, flat, hotel, hospital, seminary, academy, school, college, institute, dormitory, asylum, sanitarium, hall or place of amusement, or office building or store, each elevator shaft and stairway extending to a basement shall terminate in fireproof compartment or inclosure having a three hour fire resistance rating separating the elevator shaft and stairs from other parts of the basement, and no opening shall be made or maintained in such compartment or inclosure unless the same be provided with fireproof doors.

(b) Every building hereafter erected with a hall or altered so as to have a hall with a seating capacity of more than three hundred (300) persons when computed as provided by the building regulations, and every church hereafter erected or building hereafter converted for use as a church, with such seating capacity, shall be of fireproof construction of three hour fire resistance rating up to and including the floor of such hall or the auditorium of such church as the case may be.

(c) Spires, towers, minarets, pinnacles, penthouses over elevator shafts, ventilation shafts, chimneys, smokestacks, and fire sprinkler tanks, exceeding limits of heights shall be fire-resistive construction on buildings having non-fire-resistive construction.

(d) Hotels, apartment houses, and tenement houses hereafter erected, altered, or raised in any manner so as to be three (3) stories in height or over and buildings hereafter converted to such uses shall be of fireproof construction of three hour fire resistance rating up to and including the first floor, and there shall be no space on

any floor of such structure of an area greater than twenty-five hundred (2,500) square feet that is not completely inclosed by fireproof walls, and all doors through such walls shall be of noncombustible materials.

(e) No building hereafter erected or altered to be used for an apartment house, tenement house or hotel shall have a space on any floor having an area in excess of twenty-five hundred (2,500) square feet not completely inclosed in fireproof masonry walls having a fire resistance rating of two hours, and all doors except exterior doors through such walls shall be non-combustible.

(f) All elevator, dumbwaiter, and light shafts shall be completely fire-resistive (two hour rating); the enclosing walls of partitions shall extend up through the attic or roof space and the roof, and the shafts shall have skylights with plain glass or penthouse windows with plain glass. Dumbwaiters or lifts extending through not more than two (2) stories will not be required to be extended through the roof. A shaft other than a toilet-ventilating shaft, adjacent to another shaft, other than a stairway, will not be required to extend through the roof if an opening at least equal to the area of the shaft is placed at its highest point so as to open into the second shaft; this opening may be left unglazed or may be glazed with plain glass, and top of this shaft shall be of not less than a four (4) inch concrete slab. A horizontal offset of not more than six (6) times the least dimension of the shaft will be permitted at any floor level. The offset shall not be constructed of unprotected sheet metal but shall be of completely fire-resistive construction of a two hour fire rating.

(g) All required stairs, stair landings and stair inclosures and all corridors leading to required stairs or fire escapes shall be of completely fire-resistive construction of a two hour rating in the following buildings: Hotels and lodging houses having three (3) or more stories; apartment houses having three (3) or more stories and having more than one (1) apartment on each floor; all schools, colleges and places of assemblage having a seating capacity exceeding 300; hospitals, sanitariums, asylums, dormitories, and institutions for the infirm, regardless of the number of stories; and all other buildings having more than four (4) stories.

(h) Private garages in dwellings shall be completely inclosed in eight-inch masonry walls having a one hour fire resistance rating, except that the exterior doors may be of wood. The interior doors shall be approved automatic fire doors having a one hour fire resistance rating, the sills of which shall be at least four (4) inches above the floor of the garage. The ceiling shall have a fire resistance rating of not less than one hour. Non bearing inclosure walls or partitions may be of any type of noncombustible construction having a one hour fire resistance rating.

(i) Walls inclosing boiler and fuel rooms and that portion of the floor construction immediately over these rooms in stores, hospitals, apartment houses, dormitories, hotels, tenement houses, sanitariums, asylums, institutions for the infirm, and any similar purpose, shall be of fire-resistive construction having a two hour rating.

(j) The roofs of vaults in public space shall be completely fire-resistive with a four hour fire resistance rating.

(k) In hotels, apartment houses, tenement houses, hospitals, sanitariums, asylums, dormitories, and institutions for the infirm and any similar purpose, three (3) stories in height or over having non fire-restrictive construction, there shall be no space in any story, including attic, of such structure of an area greater than twenty-five hundred (2,500) square feet that is not completely inclosed by fire-resistive partitions having a fire resistance rating of three hours, and all doors through such partitions shall be of non-combustible materials and self-closing.

(l) Buildings of Type 2 or Type 3 construction in the following use groups shall be Type 1 construction, up to and including the main floor:

- (1) Group A, when the building is two stories or more in height.
- (2) Group L-1, when the building is three stories or more in height.
- (3) Group F-4 and Group H.

(m) Buildings of Type 2 or Type 3 construction of F-2 and F-3 occupancies with occupant capacity of more than 300 shall be of Type 1 construction up to and including the highest assembly room floor.

(n) Buildings of Type 2-B, Type 3-A, or Type 3-C construction in the following use groups shall be of construction having a fire resistance rating of  $\frac{3}{4}$  hour, up to and including the main floor:

- (1) Group L-1, when building is two stories or less in height.
- (2) Group A, when building is not more than one story in height.
- (3) Groups B, C, D, and E, when building is two stories or more in height.

(52) **TABLE 5** entitled "Fire-Resistance Ratings of Structural Elements in Hours" is amended by deleting the present language from the first block of 1 under structural elements in inserting therein the following language:

ON STREET LOT LINES, RAILROAD RIGHTS OF WAY,  
OR WITH FIRE SEPARATIONS OF 30' OR MORE FROM  
INTERIOR LOT LINES OR ANY BUILDING

**TABLE 5** is further amended by changing the figures in the second line only reading across from the word "non-bearing", by deleting the figure " $\frac{3}{4}$ " wherever it appears on the line (in 7 columns) and inserting in lieu thereof the figure "0."

**TABLE 6** entitled "General Height and Area Limitations of One-Story Buildings Facing on One Street or Public Space Not Less Than 30 Feet Wide" is deleted and the table attached hereto entitled "Type of Construction" is substituted therefor and incorporated in its place and stead.

Note (e) appearing below Table 6 is amended to read as follows:

Unlimited areas of the several types of construction will be permitted only when constructed of noncombustible materials.

(53) Section 300.0 is amended to read:

The provisions of this Article shall control the division of the Municipality of Alexandria into fire districts and the general limitations of height, area, location and use of all buildings hereafter erected, and extensions to existing buildings hereafter altered or enlarged as affected by the fire and life hazard incident to type of construction, use group, density of development, exterior exposure and accessibility of buildings and structures to fire-fighting facilities and equipment.

(54) Section 300.1 is deleted.

(55) Section 301.0 is amended to read as follows:

**301.0 FIRE DISTRICTS**

The Fire Districts of the City of Alexandria are hereby established as Fire District No. 1, Fire District No. 2, and Outside Fire Limits.

(56) Section 301.1 is amended to read:

Fire District No. 1 shall comprise the area of the City bounded by Pendleton Street, West Street, South Street and the Potomac River.

(57) Section 301.2 is amended to read:

Fire District No. 2 shall comprise the area of the City of Alexandria which is not in Fire District No. 1 and is now or hereafter zoned RA Residential, RB Residential, RC Residential, RM Residential, C1 Commercial, C2 Commercial, C3 Commercial, I1 Industrial and I2 Industrial.

(58) Section 303.4 is deleted.

(59) Section 303.5 is amended to read:

Temporary builders' shanties erected in connection with approved building operations, platforms, reviewing stands, and other similar miscellaneous structures may be erected of frame (type 4) construction for a limited period of time as approved by the building official for a period of twelve (12) months.

(60) Section 303.6 is deleted.

(61) Section 303.8 is deleted.

(62) Section 303.9 is amended to read:

Roofs over parking lots, bus and passenger terminals may be erected one (1) story and not over twenty (20) feet in height and not more than eleven thousand (11,000) square feet in area of non-combustible (type 2-C) construction.

(63) Section 304.1 is amended to read:

One and two-family dwellings (use group L-3) may be erected of protected frame (type 4-A) construction when not less than seven (7) feet from interior lot lines and of unprotected frame (type 4-B) construction when not less than ten (10) feet from interior lot lines within the height and area limitations of Table 6. Roof coverings shall be of class 1, 2 or 3 roofings complying with the provisions of Article 9.

(64) Section 307.3 is deleted.

(65) Section 311.0 is amended to read:

Except as herein provided, no part of any building hereafter erected, no part of existing buildings and structures which already project beyond the street lot line or building restriction line, and no additions to existing buildings heretofore erected shall project beyond the lot lines or beyond the building restriction line when such line is established by the zoning law or any other law controlling building construction.

(66) Section 311.1 is amended to read:

No part of a building hereafter erected below grade that is necessary for structural support of the building shall project beyond the lot lines except that the footings of street walls or their supports located at least eight (8) feet below grade may project not more than thirty-six (36) inches beyond the street lot line.

(67) Section 311.2 is deleted.

(68) Section 311.3 is amended to read:

The building official may authorize temporary projections which he deems desirable or necessary to protect the health or safety of the public.

(69) Section 311.4 is deleted.

(70) Section 311.5 is amended to read:

Encroachment by parts of existing buildings and structures which already project beyond the street lot line or building line may be authorized only by an ordinance passed by the City Council.

(71) Section 312.4 is amended to read:

Steps not more than twelve (12) feet in length, including the required landings, shall be allowed to project beyond the street lot line five (5) feet on streets 100 feet wide or greater, four (4) feet on streets 66 feet wide or greater, three (3) feet on streets 50 feet wide or greater, and in any event twenty (20) inches on Union and King Streets from the Potomac River to the R. F. & P. Railroad right of way.

(72) Section 312.72 is amended by adding the following words at the beginning of the section:

Non-combustible.

(73) Section 312.0 is amended by adding a new section numbered 312.10 thereto to read:

**312.10 PORCHES**

Nothing herein shall be construed to allow the encroachment or projection of any porch beyond the street lot line.

(74) Section 314.1 is amended to read:

**314.1 ALLEY PROJECTIONS**

No projection beyond a lot line adjacent to any alley shall be permitted.

(75) Section 314.2 is deleted.

(76) Section 400.0 is amended by deleting therefrom the second paragraph.

(77) Section 400.1 is deleted.

(78) Section 400.5 is deleted.

(79) Section 400.7 is deleted.

(80) Section 400.8 is deleted.

(81) Section 401.0 is amended by deleting the words "for profit" from the definition of a private garage

(82) Section 403.0 is deleted.

(83) Section 404.0 is deleted.

(84) Section 405.2 is deleted.

(85) Section 407.0 is deleted.

(86) Section 408.0 is deleted.

(87) Section 409.0 is deleted.

(88) Section 412.0 is deleted.

(89) Sections 413.5 and 413.6 are deleted.

(90) Section 415.13 is amended by adding a new section numbered 415.13.1 thereto to read:

**415.13.1 ATTACHED TO BUILDINGS**

Any public garage when attached to a church, school, or multi-family dwelling, or any place used for public assembly, shall be separated therefrom by fireproof construction with not less than a two-hour rating.

(91) Section 418.32 is amended to read:

Aisles shall be provided so that not more than seven (7) seats intervene between any seat and the aisle or aisles, except that the number of seats in a row shall not be limited when self-raising seats are provided which leave an unobstructed passage between rows of seats of not less than eighteen (18) inches in width leading to side aisles in which exit doorways are located not more than five (5) feet apart leading to the exit corridor or exit court.

(92) Section 418.33 is amended by deleting therefrom the number fourteen (14) and inserting in its place and stead the number ten (10).

(93) Section 418.41 is amended by deleting therefrom the number thirty (30) and inserting in its place and stead the number thirty-three (33).

(94) Section 418.42 is amended by deleting therefrom the words forty-two (42) inches and inserting in its place and stead the number forty-four (44) inches.

USE GROUP		TYPE 1		TYPE 2			TYPE 3			TYPE 4	
		FIREPROOF		NONCOMBUSTIBLE			EXTERIOR MASONRY WALLS			FRAME	
				PROTECTED	UN-PROTECTED	(H.T.,) MILL	ORDINARY	(JOISTED)	PROTECTED	UNPROTECTED	
							PROTECTED	UNPROTECTED			
1A	1B	2A	2B	2C	3A	3B	3C	4A	4B		
A	HIGH HAZARD	NOTE 1 14,000 5 ST.65'	NOTE 1 12,000 3 ST.40'	7,000 3 ST.40'	5,500 2 ST.30'	N.P.	6,000 2 ST.30'	5,500 2 ST.30'	N.P.	N.P.	N.P.
B-1	STORAGE - MODERATE		21,000 5 ST.65'	12,000 5 ST.65'	9,000 4 ST.50'	6,000 2 ST.30'	9,000 4 ST.50'	6,000 3 ST.40'	6,000 2 ST.30'	N.P.	N.P.
B-2	STORAGE - LOW		85' HIGH	1 ST. 18,000 2 ST. OR MORE 12,000 6 ST.75'	10,500 4 ST.50'	1 ST.12,000 2 ST. OR MORE 6,000 3 ST. 40'	1 ST.12,000 2 ST. OR MORE 8,000 4 ST.50'	1 ST. 9,000 2 ST. OR MORE 6,000 3 ST.45'	1 ST. 9,000 2 ST.30' 6,000	N.P.	N.P.
C	MERCANTILE		85' HIGH	14,000 4 ST.75'	10,000 4 ST.50'	8,000 3 ST.40'	10,000 4 ST.50'	1 ST. 9,000 2 ST. OR MORE 6,000	6,000 2 ST.30'	N.P.	N.P.
D	INDUSTRIAL		24,000 12 ST. 85' HIGH	14,000 4 ST.75'	10,000 4 ST.50'	8,000 3 ST.40'	10,000 4 ST.50'	8,000 3 ST.40'	6,000 2 ST.30'	N.P.	N.P.
E	BUSINESS			1 ST. 18,000 2 ST. OR MORE 12,000 6 ST.75'	10,000 4 ST.50'	1 ST. 9,000 2 ST. OR MORE 6,000 3 ST.40'	1 ST.12,000 2 ST. OR MORE 8,000 4 ST.50'	1 ST.9,000 2 ST. OR MORE 6,000 3 ST.40'	1 ST. 9,000 2 ST.30' 6,000	N.P.	N.P.
F-1-A	ASSEMBLY WITH STAGE AND SCENERY		12,000 6 ST.75'	7,000 4 ST.50'	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
F-1-B	WITHOUT STAGE (MOTION PICTURE THEATER)		9 ST.21,000 85' HIGH	12,000 5 ST.65'	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
F-2	ASSEMBLY NIGHT CLUBS AND SIMILAR USES		6,000 4 ST.50'	3,500 3 ST.40'	2,750 2 ST.30'	2,000 1 ST.20'	3,000 2 ST.30'	2,500 2 ST.30'	N.P.	N.P.	N.P.
F-3	LECTURE HALLS-RECREATION CENTERS TERMINALS-RESTAURANTS OTHER THAN NIGHT CLUBS		21,000 9 ST. 85' HIGH	12,000 5 ST.65'	6,000 3 ST.40'	7,000 1 St.	10,000 2 St.40'	6,000 2 ST.40'	N.P.	N.P.	N.P.

## TYPE OF CONSTRUCTION

USE GROUP		TYPE OF CONSTRUCTION									
		TYPE 1		TYPE 2			TYPE 3			TYPE 4	
		FIREPROOF		NONCOMBUSTIBLE			EXTERIOR MASONRY WALLS			FRAME	
				PROTECTED		UN- PROTECTED	(H.T.) MILL	ORDINARY PROTECTED	(JOISTED) UNPROTECTED	PROTECTED	UNPROTECTED
1A	1B	2A	2B	2C	3A	3B	3C	4A	4B		
F-4	ASSEMBLY - CHURCHES, SCHOOLS		9 ST.100' 36,000	5 ST.65' 14,000	2 ST. 40' 11,000	1 ST. 7,000	2 ST. 40' 9,000	1 ST. 9,000 2 ST. OR MORE 6,000 3 ST. 40'	N.P.	N.P.	N.P.
H-1	INSTITUTIONAL - RESTRAINED	6 ST. 2,000	6 ST. 75' 15,000	4 ST.50' 9,000	2 ST. 30' 6,900	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
H-2	INSTITUTIONAL - INCAPACITATED		85' High 8 ST. 18,000	4 ST.50' 10,000	2 ST. 30' 8,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
L-1	RESIDENTIAL - HOTELS			9 ST.100' 14,000	4 ST. 50' 4,000	2 ST. 30' 3,000	4 ST. 50' 4,000	1 ST. 9,000 2 ST. OR MORE 6,000 4 ST. 45'	N.P.	N.P.	N.P.
L-2	RESIDENTIAL - MULTI-FAMILY			9 ST.100' 14,000	4 ST. 50' 4,000	2 ST. 30' 3,000	4 ST. 50' 4,000	1 ST. 9,000 2 ST. OR MORE 6,000 4 ST. 45'	N.P.	N.P.	N.P.
L-3	RESIDENTIAL - 1 & 2 FAMILY			3 ST.40' 5,000	3 ST.40' 5,000	2 ST. 40' 5,000	3 ST. 40' 5,000	3 ST. 40' 5,000	2 ST. 30' 5,000	3 ST. 40' 5,000	2½ ST. 35' 4,000
M	MISCELLANEOUS & TEMPORARY										

NOTE 1 - Buildings for use Group A shall be sprinkled if over two stories in height and over 15,000 sq. ft. in AREA.

\* - Permitted in Fire District #2 Only. = U N L I M I T E D

N.P - Not Permitted

(95) Section 423.0 is deleted.

(96) Section 424.0 is deleted.

(97) Section 425.0 is deleted.

(98) Section 426.3 is amended to read:

The arrangement and capacity of the driveways, lanes and parking spaces shall comply with the requirements specified for in Chapter 35 of the City Code.

(99) Section 426.4 is deleted.

(100) Section 427.2 is amended by deleting therefrom the numbers one-eighth ( $\frac{1}{8}$ ) and a three-sixteenths ( $\frac{3}{16}$ ) and inserting in their respective places and steads the numbers one-quarter ( $\frac{1}{4}$ ) and five-sixteenths ( $\frac{5}{16}$ ).

(101) Section 427.4 is deleted.

(102) Section 507.2 is amended by deleting therefrom the number one-half ( $\frac{1}{2}$ ) and inserting in its place and stead the number forty-five (45) percent.

(103) Section 507.3 is amended by deleting therefrom the last six words and substituting in their place and stead the following words: Chapter 35 of the City Code.

(104) Section 507.4 is amended by adding thereto the following language:

No habitable room in L-1 or L-2 residential occupancies, or habitable rooms used for living or sleeping purposes in H-Institutional occupancies, shall have any exterior wall with less than fifty (50) percent of its surface above the level of the ground immediately adjacent thereto; except that if an areaway, five (5) feet or more in minimum width, extends along the full length of such wall, the part of the wall surface above the level of the bottom of the areaway may be used in determining the percentage of wall surface above ground level. No part of a window or other opening in the wall that is more than three (3) feet below the level of the coping of the areaway shall be included in determining the required daylighting of the habitable room.

In dwelling units of L-1 and L-2 residential buildings, artificial light may be provided in an interior kitchen which complies with the following:

(a) The total floor area shall not exceed one hundred (100) square feet but shall not be less than sixty (60) square feet.

(b) The unobstructed floor space after the installation of kitchen cabinets and equipment, including such space as is required for the installation of stove and refrigerator, shall not exceed fifty (50) square feet.

(105) Section 518.0 is deleted.

(106) Section 519.0 is deleted.

(107) Section 520.0 is deleted.

(108) Section 521.1 is amended to read:

When Required by the Fire Prevention Bureau,—All buildings and structures for institutional use (use groups H-1 and H-2), and all hotels and apartment houses (use groups L-1 and L-2), which exceed three (3) stories or forty (40) feet in height, with more than twenty-five (25) sleeping rooms or which are occupied by more than fifty (50) persons above the first floor or which exceed ten thousand (10,000) square feet in area and all fully enclosed industrial buildings without provision of exterior window openings for ventilation purposes, the public exit halls and corridors shall be constructed with vertical fire vent stacks and lateral fire vent ducts as herein provided, or with windows to the outer air, or with mechanical ventilating or exhaust systems, or with other equivalent approved means of dissipating smoke, heated air and toxic gases directly to the outer air in the event of fire.

(109) Section 606.22 is amended to read:

Within seven (7) days after the service of the exit order of the building official, the owner may file a written appeal therefrom to the Board of Survey for a final determination.

(110) Section 608.4 is amended so that Table 10 therein shall read as follows:

**Table 10. Occupancy Allowances**

Use group	Floor area in square feet per occupant
Assembly with fixed seats	6
Business buildings	100
Court rooms	40
Dance halls, lodge rooms	15
Hotels, lodging houses, multi-family dwellings	125
Institutional buildings	150
Mercantile buildings, first floor	30
Mercantile buildings, basement sales floor	30
Mercantile buildings, other floors	60
Schools, auditoriums & gymnasiums	6
Schools, cafeterias	10
Schools, libraries	25
Schools, classrooms	15
Schools, all other areas	40
Storage buildings	300
Bowling alleys, allow 5 persons for each alley, including 15 feet of runway, and for additional areas	10

(111) Section 609.2 is amended to read:

**SECTION 609.2 REMOTE LOCATIONS**

Whenever more than one (1) means of exit is required from any room, space or floor of a building, they shall be placed remote from each other so as to minimize any possibility that both may be blocked by any one fire or other emergency condition. Dead end corridors or pockets are prohibited except as provided in Section 612.2.

(112) Section 609.3 is amended to read:

**SECTION 609.3 LENGTH OF TRAVEL**

Except as may be modified by the provisions of Section 611 for number of exitways, all exits shall be so located that the maximum length of travel, measured from the most remote point to an approved stairway or horizontal exit along the natural and unobstructed line of travel shall not exceed the distances given in table II; except that in buildings, of other than high hazard use and places of assembly, where the area is subdivided into rooms or compartments, the distance may be measured from the room door to the nearest exit provided the path of travel from any point in the room to reach the room door does not exceed fifty (50) feet.

(113) The Business Use Group in Table 11, Section 609.3 is amended to read:

Business	150	125	100
----------	-----	-----	-----

(114) Section 610.4 is deleted.

(115) Section 611.0 is amended by adding a new section numbered 611.311 thereto to read:

**SECTION 611.311 APARTMENT HOUSES**

Apartment houses not more than three (3) stories high and containing not more than four (4) apartments per floor may be equipped with one (1) forty-four (44) inch stairway, provided that said stairway is noncombustible and inclosed in eight (8) inch masonry walls, or other walls of one and one-half (1½) hour fire resistance rating, and having the structural stability of eight (8) inch masonry walls, and further, that all corridors serving said stairway shall be noncombustible with a one and one-half (1½) hour fire resistance rating, and having the structural stability of eight (8) inch masonry walls. No combustible structural member shall be supported by these walls, or be allowed to reduce their thickness.

(116) Section 612.2 is amended to read:

**SECTION 612.2 DEAD ENDS**

Exit corridors and hallways which serve more than one (1) exit shall provide direct connections to such exits in opposite directions from any point in the corridor. Exception: Such corridors may have dead ends not exceeding twenty (20) feet providing the two (2) required exits are remote with respect to each other as specified by Section 609.2. The dead end is measured from the doorway of the room nearest the end of the corridor to the point at which an exit is reached, or at which the corridor gives access to exits by travel in two (2) different directions. Dead ends may be fifty (50) feet long in completely sprinklered buildings.

(117) Section 614.1 is amended to read:

Every room with an occupancy load of more than fifty (50) or which exceeds fifteen hundred (1500) square feet in area shall have at least two (2) exit doorways and the doors shall be hung to swing in the direction of exit travel without obstructing the required width of exit passageway. Grade exit doors shall not project more than twelve (12) inches beyond the street lot line.

(118) Section 616.52 is deleted.

(119) Section 618.8 is amended by adding thereto the following sentence:

Such stairways shall, however, be inclosed at the head or foot except in buildings of Type 1 construction or in sprinklered buildings.

(120) Section 618.21 is amended to read:

All interior required stairways shall be not less than forty-four (44) inches in width except that such width may be reduced to thirty-six (36) inches in one and two-family dwellings (use group 1-3), or in exitways from boiler rooms and similar service spaces not open to the public or in general use by employees. When the boiler room is less than three hundred (300) square feet in area, housing a low pressure boiler, and is completely inclosed in two (2) hour fire-resistive construction with approved opening protectives and an iron ladder or other approved direct exit is furnished to the street, the primary stairway may be omitted.

(121) Section 618.41 is amended to read:

The height of risers and width of treads in inches shall be as follows:

Use Group	Maximum Riser	Minimum Tread
One- and two-family dwellings (use group L-3)	8¼"	9" plus 1¼ nosing
All other residential (use groups L-1 & L-2)	7¾"	9" plus 1¼ nosing
Assembly and institutional	7½"	9½" plus nosing
Business	7¾"	9½" plus nosing

(122) Section 618.63 is amended to read:

All required stair exit door opening protectives, including the frames and hardware, shall be approved self-closing swinging fire doors complying with Article 9 except in one- and two-family dwellings.

(123) Section 619.1 is amended by deleting from the first sentence thereof the word "room" and substituting in its place and stead the word "roof."

(124) Section 621.32 is amended to read:

Except where wooden stairways are permitted, all doors and windows opening on or within ten (10) feet of exterior exit stairways shall be protected by approved three-quarter (¾) hour self-closing fire doors or approved three-quarter (¾) hour fire windows.

(125) Section 623.0 is deleted.

(126) Section 624.1 is amended by adding thereto the following sentence:

Fire escapes shall not be used for multi-family dwellings having more than three (3) apartments.

(127) Section 625.0 is deleted.

(128) Section 626.2 is amended to read:

All exit signs shall be generally located at doors or exitways so as to be readily visible and not subject to obliteration by smoke. They shall be illuminated at all times when the building is occupied from an independently controlled electric circuit or other source of power, in a manner which is in accordance with the provisions of the City of Alexandria Electrical Code.

(129) Section 627.4 is amended to read:

In department stores of over five thousand (5,000) square feet area, places of public assembly, schools, institutional buildings, and hotels with sleeping accommodations for more than twenty-five (25) persons, the lighting shall be from an independent power source to assure continued illumination of all exitways in case of emergency, and in accordance with the Electrical Code of the City of Alexandria.

(130) Section 707.1 is amended so that "Dwelling rooms, second floor and habitable attic dwelling . . . 30" in Table 13 shall read:  
Second floor and habitable attic . . . 40

(131) Section 711.1 is amended to read:

Flat and pitched roofs shall be designed for a live load of not less than thirty (30) pounds per square foot of horizontal projection, and for a live load of not less than twenty-five (25) pounds per square foot for roofs with a slope of 30° or more with the horizontal. When used for incidental promenade purposes, roofs shall be designed for a minimum live load of sixty (60) pounds per square foot; and one hundred (100) pounds per square foot when designed for roof garden or assembly uses.

(132) Section 711.3 is amended by deleting therefrom the number seventy-five (75) and inserting in its place and stead the number thirty (30).

(133) Section 712.0 is deleted.

(134) Section 712.1 is deleted.

(135) Section 712.2 is deleted.

(136) Section 719.0 is deleted.

(137) Section 720.1 is deleted.

(138) Section 725.3 is amended so that item 6 and item 7 of Table 15 therein shall read:

6—Gravel and sand-gravel mixtures	4
7—Loose gravel, hard dry clay, compact coarse and soft shales	3

(139) Section 729.1 is amended by deleting therefrom the word "vertical" and substituting in its place and stead the word "horizontal."

(140) Section 729.2 is amended to read:

Floating mat foundations shall be located on permanently undisturbed soil of adequate bearing capacity. The building official may approve a continuous foundation mat which is located directly on the ground when adequate sub-soil drainage is provided when required. Where subject to freezing, the footing shall be designed to resist frost action. The requirements of Section 508 governing the ventilation of crawl spaces under grade construction shall be waived provided adequate provision is made for dampproofing and waterproofing when required.

(141) Section 730.3 is deleted.

(142) Section 733.1 is amended by adding the following words thereto:

. . . and contain not less than four and one-half (4½) sacks of Portland cement per cubic yard.

(143) Section 733.3 is amended to read:

In unreinforced concrete footings, the edge thickness shall be not less than twelve (12) inches for footing on soil, and have a minimum projection of six (6) inches from each face of the wall, and be not less than twelve (12) inches above the tops of piles in footings on piles.

(144) Section 733.0 is amended by adding a new section thereto numbered 733.5 to read:

#### **SECTION 733.5 LIMITATIONS**

The use of unreinforced concrete footings shall be limited to buildings not to exceed two stories or twenty (20) feet in height above the ground, and shall support not more than nine (9) feet of masonry above the finished basement floor.

(145) Section 734.1 is amended by deleting the word "eight" (8) therefrom and substituting in its place and stead the word "twelve" (12).

(146) Section 735.0 is amended by adding thereto a new section numbered 735.4 to read:

#### **SECTION 735.4 MINIMUM REINFORCEMENT**

Except as provided in Section 733.5 all wall footings shall have a depth of not less than eight (8) inches and shall have a minimum projection on each side of the wall above, or six (6) inches, and shall have continuous reinforcement of not less than three (3) No. 4 steel deformed reinforcing bars.

(147) Section 737.5 is amended to read:

Piles shall have a minimum tip diameter of eight (8) inches and a minimum average diameter of ten (10) inches. Tapered shoes or points of lesser dimensions and not longer than the average pile diameter may be attached to the pile unit.

(148) Section 737.8 is amended to read:

Piles may be jetted through foundation material only when approved by the building official. The approval to permit jetting of

piles shall be issued by the building official in writing. Immediately after completion of jacking the piles shall be driven to the required load resistance as determined by the application of an approved pile driving formula.

(149) Section 737.0 is amended by adding thereto a new section numbered 737.10 to read:

**SECTION 737.10 CUSHION BLOCKS**

If a wood cap or cushion block is used, it shall consist of a one piece hardwood block not more than eight (8) inches thick, of approximately the same diameter as the striking part of the hammer, contained in a close fitting steel housing and with grain parallel to the pile axis. Subject to the approval of the Building Department, cap blocks of other materials may be used providing it is demonstrated to the satisfaction of the building official that the hammer energy transmission characteristics of the proposed cap block are equal to or greater than the cap block specified above.

(150) Section 737.0 is amended by adding thereto a new section numbered 737.11 to read:

**SECTION 737.11 PENETRATION MEASUREMENT**

Penetration measurements for the purpose of determining resistance to driving shall not be made when pile heads are damaged to an extent which may affect measured penetration nor immediately after fresh cushion blocks have been inserted under the striking part of the hammer and such measurements shall be made without interrupting the driving more than may be necessary for such measurements, except for necessary repairs, or for re-driving heaved piles.

(151) Section 738.3 is amended to read:

When the soil surrounding an all metal or metal encased pile, caisson or pier contains destructive chemical elements and when such metal or metal encasement is load bearing, the pile shall be provided with an approved protective jacket. When the protective jacket is of concrete, the thickness of cover over the steel shall be not less than one and one-half (1½) inches.

(152) Section 739.0 is amended to read:

The allowable load on piles shall be determined by the applicable formulas complying with accepted engineering practice. The maximum load capacity shall be limited by the supporting capacity of the soil as determined by driving resistance or by load tests as herein prescribed; but in no case shall the load exceed the capacity of the pile designed in accordance with the accepted engineering practice and the provisions of the Basic Code.

(153) Section 739.1 is deleted.

(154) Section 739.2 is amended by deleting therefrom the words "an approved" and substituting in their place and stead the words "Engineering News Formula."

(155) Section 742.1 is amended to read:

All concrete for cast-in-place piles shall develop a compressive strength of not less than twenty-five hundred (2500) pounds per

square inch at twenty-eight (28) days, and contain not less than five and one-half (5½) bags of Portland cement per cubic yard. Just prior to placing of concrete, approximately one (1) cubic foot of 1:2 cement grout shall be placed at the bottom of the pile. Concrete of four (4) to five (5) inch slump shall be deposited in a continuous operation through a funnel having a discharge opening not greater than eight (8) inches in diameter and centered in the pile top and so as to insure a full size pile without voids or segregation. All concrete shall be placed in the dry; except when the bottom of the pile is sealed by depositing concrete by tremie or other approved method, after removing all soil and other foreign matter.

(156) Section 743.1 is amended by changing the third sentence thereof to read as follows:

Concrete shall contain not less than five and one-half (5½) bags of Portland cement per cubic yard and have a minimum compressive strength of twenty-five hundred (2500) pounds per square inch at twenty-eight (28) days' age.

(157) Section 743.4 is amended to read:

The minimum wall thickness of all load-bearing pipe, tubes and shells shall be one-fourth (¼) inches. When required by soil conditions, allowance shall be made for corrosion as specified in Section 738.

(158) Section 744.3 is amended to read:

The concrete fill of drilled caissons shall be controlled concrete, with a compressive strength of not less than thirty-five hundred (3500) pounds per square inch at twenty-eight (28) days, and shall contain not less than seven (7) bags of Portland cement per cubic yard, deposited with a slump of not more than six (6) inches. When deposited in water, the concrete shall be placed with an approved bottom dump bucket or tremie to eliminate segregation.

(159) Section 748.1 is amended to read:

For fully embedded piles, any soil other than fluid soil shall be deemed to afford sufficient lateral support to eliminate buckling under axial load. For piles which extend or will extend through air, water or fluid soil, that portion of the pile extending from cut-off to ten (10) feet below the surface of soil furnishing lateral support shall be designed as a structural column. Soil which will subsequently be removed shall not be considered as providing lateral support.

(160) Section 749.5 is amended by deleting therefrom the figure twelve (12) and inserting in its place and stead the figure six (6).

(161) Section 803.5 is amended to read:

Tests of service equipment and accessories shall include proscenium curtain and stage ventilation, Section 418.6; structural load tests, Section 703; flues and chimneys, Section 1003; boilers, Section 1103; sprinkler and standpipe equipment, Section 1503; moving stairways, elevator interlocks and safety devices, Section 1603; refrigerating equipment, Section 1803; and all other service tests required by the approved rules.

(162) Section 804.2 is amended by deleting therefrom the words "working load" and inserting in their place and stead the words "live load."

(163) Section 806.1 is deleted.

(164) Section 807.0 is amended by changing the last sentence thereof to read as follows:

Unburned clay brick shall not be used in isolated brick piers, bearing walls, nor in any part of a building exposed to the weather.

(165) Section 810.6 is amended by deleting the last sentence therefrom.

(166) Section 820.11 is amended to read:

The building official shall be notified not less than twenty-four (24) hours in advance of all suspended plastering work, and no plaster shall be applied until after the lathing or other plaster base has been inspected and approved by him.

(167) Section 825.1 is amended to read:

When used for structural support all plywood shall be identified as to veneer-grade and glue-type by the manufacturers' identification marks and the working stresses shall conform to the standards of accepted engineering practice as listed in appendixes B and C.

(168) Section 828.2 is amended to read:

The minimum permissible thickness of metal for formed steel structural members shall be based on the use of the member as follow:

Siding and sheathing .....	No. 28	U.S. Gage
Ribbed steel roof construction .....	No. 20	" "
Steel floor plates .....	No. 16	" "
Studs, joists, purlins, structural rib, horizontal girts .....	No. 16	" "
Furring members .....	No. 18	" "

(169) Section 828.51 is amended to read:

The effective width of the top flange of steel roof decking with longitudinal ribs spaced not over six (6) inches on center shall be limited to the following ratio of the spacing between ribs:

No. 18 U. S. Gage .....	$\frac{3}{4}$ flange width
No. 20 U. S. Gage .....	$\frac{5}{8}$ flange width

(170) Section 828.52 is amended to read:

Roof decking shall not be used on spans exceeding ten (10) feet unless designed as a composite member or approved by test; and shall be designed as of a simple span, unless the deck units extend continuously over three (3) or more spans and are rigidly welded to each support.

(171) Section 828.63 is amended to read:

Exposed siding or sheathing shall be fabricated of approved corrosion-resistive metals or otherwise protected at the ground level for a height of not less than eight (8) inches.

(172) Section 829.0 is amended by adding thereto a new section numbered 829.5 to read:

**SECTION 829.5 LIMITATIONS**

All open web steel joists shall be fabricated entirely of hot rolled members.

(173) Section 829.11 is amended by adding thereto the following sentence:

The maximum stress permitted in tension and in compression shall not exceed 18,000 P.S.I.

(174) Section 835.3 is amended to read:

All masonry shall be protected against freezing and shall not be constructed below twenty-eight (28) degrees F. on rising temperatures or below thirty-two (32) degrees F. on falling temperatures, without temporary heated inclosures or without heating materials or other precautions necessary to prevent freezing. No frozen materials shall be used nor shall frozen masonry be built upon.

(175) Section 836.0 is amended by adding thereto the following sentence:

Walls composed of two (2) or more masonry building units shall be bonded with masonry header ties, when required by the forces exerted upon them.

(176) Part B, Article 8 is amended by adding a new section numbered 836A.0 to read:

**SECTION 836A.0 WALL DETAILS**

Where pilasters or buttresses are built in walls to permit reduced thickness of the walls, they shall not be less in thickness than twice the required thickness of the wall if such pilasters or buttresses were not used, nor less than two (2) feet. Such pilasters or buttresses shall be bonded into the wall by masonry in the same manner employed in the construction of the wall.

Where pilasters or buttresses are used to permit reduced wall thickness, they shall be not less in width than one-eighth ( $\frac{1}{8}$ ) of the clear distance between them and their clear distance apart shall not exceed twenty-four (24) times the thickness of the wall between them, provided that the requirements for lateral support shall be satisfied. Principal girders and trusses shall rest on the pilaster or buttresses.

Piers used as mullions and supporting no load other than their own weight shall not be subject to the above requirements.

**Change in Thickness Due to Span.** Where the clear span between walls or from wall to bearing opposite is greater than thirty-two (32) feet, the bearing walls shall be increased four (4) inches in thickness for every sixteen (16) feet, or fraction thereof, in excess of thirty-two (32) feet.

**Bearing and Party Walls of Solid Masonry Units.** The minimum thickness of solid bearing and party walls of masonry units, including brick, solid concrete masonry units, and stone ashlar, shall be twelve (12) inches for the uppermost thirty-five (35) feet and shall be increased four (4) inches for each successive thirty-five (35) feet or fraction thereof, measured downward from the top of the wall.

Exceptions: (1) Where bearing or party walls are stiffened at distances not greater than twenty-four (24) feet by cross-walls, or internal or external returns, at least one (1) foot wide by two (2) feet deep, in addition to support from floors and roof, the walls may be twelve (12) inches thick for the upper sixty (60) feet, measured downward from the top of the wall, but not less than sixteen (16) inches thick for the remaining lower portion of the wall.

(2) Bearing on party walls of L-2 residential buildings may be eight (8) inches thick for wall height of not more than thirty (30) feet.

(3) In buildings other than L-2 residential in which the live load does not exceed fifty (50) pounds per square foot, and not exceeding three (3) stories, with a wall height not over forty (40) feet, in which the roof beams are not pitched more than one (1) inch in twelve (12) inches, or the roof construction otherwise imparts no lateral thrust to the walls, the walls may be eight (8) inches thick for the upper thirty (30) feet, provided the unsupported height of such walls does not exceed twelve (12) feet and there is a distance not to exceed fifty (50) feet between cross-walls, buttresses, or returns.

#### **Bearing Walls of Hollow Units.**

Walls built of hollow units including structural clay tiles and hollow concrete masonry units shall be not more than fifty (50) feet in height.

These heights shall include the heights of foundation walls on which they are supported, if built of the permitted materials.

The minimum thickness shall be twelve (12) inches for the uppermost twenty-five (25) feet of their height and not less than sixteen (16) inches for the remaining lower portion.

Exceptions: (1) Where walls of the above types are stiffened at distances not greater than twenty-four (24) feet by cross-walls or by internal or external returns, at least one (1) foot wide by two (2) feet deep, in addition to support from floors and roof, they may be twelve (12) inches thick throughout. (2) Bearing walls of L-2 residential buildings may be eight (8) inches thick for the upper twenty (20) feet and twelve (12) inches thick for the remaining permitted height. (3) In buildings other than L-2 residential in which the live load does not exceed fifty (50) pounds per square foot, and not exceeding three (3) stories or thirty-five (35) feet in wall height, in which the roof construction otherwise imparts no lateral thrust to the walls, the walls may be eight (8) inches thick for the uppermost twenty (20) feet and twelve (12) inches thick for the remainder, provided the unsupported height of such walls does not exceed ten (10) feet, and provided there is a distance not to exceed fifty (50) feet between cross-walls, buttresses, or returns.

**Plain Concrete Walls.**

Reinforcement of not less than two-tenths (2/10) of one (1) percent computed on a vertical height of twelve (12) inches shall be placed over all wall openings and at corners of the structure to prevent cracks. Floor and roof connection details shall be designed to transmit safely the vertical and horizontal loads imposed.

The minimum thickness of plain concrete walls may be two (2) inches less than required for solid walls of masonry units, except that foundation walls and party walls shall be not less than eight (8) inches thick.

**Stone Walls.**

Ashlar or coursed rubble masonry shall be of thickness not less than required for walls of solid masonry units, but thickness for coursed rubble masonry shall not be less than twelve (12) inches.

Random or rough rubble masonry shall be four (4) inches thicker than required for Bearing and Party Walls of solid masonry units for the same conditions but no thickness shall be less than sixteen (16) inches.

**Top-story and One-story Walls.**

The top story walls of a building not exceeding three (3) stories with wall height not over forty (40) feet, or walls of one-story buildings, may be eight (8) inches thick, provided such eight (8) inch walls do not exceed twelve (12) feet in unsupported height, and roof beams are pitched not more than one (1) inch in twelve (12) inches, or the roof construction otherwise imparts no lateral thrust to the walls.

**Parapet Walls.**

The height of parapet walls shall not exceed four (4) times the thickness unless laterally supported by pilasters or buttresses, or made of reinforced masonry. The thickness shall not be less than eight (8) inches. Where there are moving loads or other sources of impact, the wall shall be designed to resist resulting lateral forces.

**Parapet walls shall be built of solid units or of concrete.**

Reinforcement, the equivalent of not less than two three-eighths (3/8) inch round bars, shall be placed in mortar joints, not more than twelve (12) inches apart vertically, and extending continuously throughout the parapet.

The top of the wall shall be capped with an incombustible and weather-resistant coping laid with full joints, and projecting not less than (1) inch beyond each face, or sloped to project only over the inner face.

**Foundation Walls.**

Brick, structural clay tile, concrete masonry units, stone, and concrete, when used for foundations, shall be of grades permitted for use in exterior walls below grade or exposed to the weather.

Foundation walls shall be of sufficient strength and thickness to resist all loads to which they are subjected without exceeding allowable stresses.

They shall not be less in thickness than permitted for the total wall height, of which their height is a part.

They shall not be less in thickness than the walls immediately above them.

Foundation walls supporting solid walls shall be of solid masonry units, stone, or concrete.

The ratio of height to thickness of foundation walls shall not exceed twelve (12), and additional thickness or lateral support shall be provided if necessary.

Foundation walls shall be adequately anchored to develop the lateral support for the forces exerted upon them.

The thickness of foundation walls built of solid masonry units shall be not less than twelve (12) inches, except that where the height of fill against them does not exceed five (5) feet they may be of eight (8) inch thickness.

Foundation walls of plain cast-in-place concrete shall be not less than ten (10) inches thick, except that where the height of fill against them does not exceed five (5) feet they may be of eight (8) inch thickness.

The thickness of wall of coursed rubble shall not be less than twelve (12) inches, and of random or rough rubble, not less than sixteen (16) inches. Rubble masonry shall not be used in foundation walls of buildings over thirty-five (35) feet in height.

The thickness of foundation walls built of hollow masonry units shall be not less than twelve (12) inches except that where the height of fill against them does not exceed four (4) feet, they may be of eight (8) inch thickness. The hollow space in the units need not be filled.

Hollow masonry-bonded and cavity walls shall not be used in foundation walls below ground level. The foundations for them may be of solid construction or of hollow masonry units otherwise permitted for foundation walls.

#### **Curtain Walls.**

Curtain walls shall include nonbearing walls between columns, piers, or cross-walls, which are not supported by beams or girders at each story. Such walls may be eight (8) inches thick for their uppermost thirty (30) feet of their height, increasing four (4) inches in thickness for each successive thirty-five (35) feet or fraction thereof, measured downward from the top of the wall, except that reinforced concrete walls may be six (6) inches for the uppermost thirty (30) feet of their height, increasing three (3) inches for each successive thirty-five (35) feet of their height.

When built of hollow units, curtain walls shall be at least eight (8) inches thick for their uppermost twenty (20) feet of their height, increasing four (4) inches in thickness for the remaining height. Such walls shall not exceed fifty (50) feet in height above the footings.

Curtain walls shall be laterally supported at right angles to the face of the wall at intervals of not exceeding twenty-four (24) times the thickness of the wall. Such columns, piers or cross-walls forming the support shall be designed to resist the wind pressure against the wall.

When the distance between lateral supports exceeds twenty-four (24) times the thickness of the walls, such walls shall have a minimum thickness as required for bearing walls.

Curtain walls shall be bonded as for bearing walls.

(177) Section 837.1 is deleted.

(178) Section 838.1 is amended to read:

Chases and recesses shall be prohibited in any wall less than twelve (12) inches thick or in the required area of piers and buttresses; except that eight (8) inch solid walls where permitted in residential buildings and the apron under window openings may be chased not more than four (4) inches in depth.

(179) Section 838.2 is amended by deleting therefrom the words "when waterproofed."

(180) Section 839.3 is amended by deleting from the second sentence thereof the word "metal" and substituting in its place and stead the word "molded."

(181) Section 840.2 is amended to read:

All open cells in tiles or blocks at exterior wall ends and at openings shall be filled solidly with concrete for a length of not less than twelve (12) inches, or reversed closure tile shall be used.

(182) Section 842.1 is amended to read:

#### SECTION 842.1 REINFORCED CONCRETE CONSTRUCTION

All reinforced concrete construction shall be in accordance with the Building Regulations for Reinforced Concrete as approved and adopted by the American Concrete Institute in February, 1956, (A.C.I. 318-56), except:

(1) That Table 302(a)—Assumed Strength of Concrete Mixtures shall be changed to read as follows:

**TABLE 302(a) — ASSUMED STRENGTH OF CONCRETE MIXTURES**

Class of Concrete	Water Content U. S. Gallons per 94-lb. sack of Cement	Minimum Bags of Cement per Cubic Yard	Assumed Ultimate Compressive Strength at 28 days, p.s.i.	Laboratory Ultimate Compressive Strength at 28 days, p.s.i.
A	6.0	7.0	3500	4000
B	7.0	6.0	3000	3500
C	7.5	5.5	2500	2900
D	8.0	5.0	2000	2400
E	8.5	4.0	1500	1800

(2) That Appendix A 600 through A 611 be deleted, except that ultimate strength design method as outlined therein be permitted for the design of columns only.

All test specimens shall be cast by a representative of an approved

testing laboratory, who shall assume responsibility for the care of all specimens until such time as they are tested.

(183) Section 842.3 is amended to read:

Cinders shall not be used as course aggregate in reinforced concrete structural members.

(184) Section 847.0 is amended by adding a new section numbered 847.6 thereto to read:

**SECTION 847.6 MINIMUM THICKNESS**

The minimum thickness of steel pipe columns shall be in accordance with Sections 827.4 through 827.46 inclusive.

(185) Section 853.0 is amended by adding thereto the following sentence:

However, any units having wane or other imperfections which in the judgment of the building official interfere with the efficient use of connectors or fasteners or attachments of other elements of a structural system may be rejected; and when ruling upon the reliability of various types of connectors, the probability of dimensional changes which may be caused by variation in moisture content may also be taken into consideration.

(186) Section 853.1 is amended by adding thereto the following sentence:

No increase in stress will be allowed in roof members due to short-time loading.

(187) Section 855.7 is amended to read:

Approved corrosion-resistive flashing shall be provided wherever necessary to prevent moisture penetration behind the veneer.

(188) Section 855.15 is amended to read:

In all floors and attics, there shall be not less than one (1) line of bridging for each eight (8) feet of span. The bridging shall consist of not less than one by three (1x3) inch lumber, double-nailed at each end, or of equivalent metal bracing of equal rigidity secured at the intersection. A line of bridging shall also be required at supports where adequate lateral support is not otherwise provided.

(189) Section 855.0 is amended by adding thereto a new section numbered 855.151 to read:

**SECTION 855.151 WORKING STRESSES**

Unless grade marked lumber is used, the following allowable unit stresses shall be assumed:

1. Extreme fiber in bending "f", 1,000 p.s.i.
2. Horizontal shear "H", 80 p.s.i.
3. Compression perpendicular to grain, "cI" 300 p.s.i.
4. Compression parallel to grain, "c" 800 p.s.i.
5. Modulus of elasticity "E", 1,200,000.

(190) Section 857.2 is deleted.

(191) Section 857.3 is deleted.

(192) Section 862.3 is amended to read:

Exterior wall panels shall be held in place in the wall to resist both the internal and external pressures due to wind loads specified in Sections 713 and 714.

(193) Section 863.1 is amended to read:

Veneers for other than frame buildings, shall be attached only to substantial, rigid, noncombustible surfaces which are plumb, straight and of true plane; and no wood backing surfaces shall be used except in frame construction not over two (2) stories. The backing shall provide sufficient rigidity, stability and weather resistance; and the veneer shall be installed and anchored as required in the Basic Code for the specific material.

(194) Section 869.3 is amended by adding thereto the words "or coating."

(195) Section 869.4 is amended to read:

All panel walls shall be anchored to the structural frame to insure adequate lateral support and resistance to wind.

(196) Section 870.0 is amended by deleting therefrom the number two (2) and inserting in its place and stead the number one (1).

(197) Section 870.1 is amended to read:

Parapet walls shall be no less than eight (8) inches thick; but in no case shall the required thickness exceed twelve (12) inches, nor shall the height be more than four (4) times the thickness unless laterally supported by noncombustible bracing or buttresses.

(198) Section 871.22 is amended to read:

When not more than four (4) feet deep below grade, masonry foundation walls shall be not less than eight (8) inches thick, provided the total height of eight (8) inch wall including the superstructure does not exceed twenty-five (25) feet; and when more than four (4) feet below grade, not less than twelve inches thick.

(199) Section 872.0 is amended to read:

#### **Permits.**

Plans and survey plot shall accompany each application for a permit to construct retaining walls.

Permits will be required for the construction of all retaining walls that are located on street or alley lot lines.

Permits shall not be required for erection on private property of retaining walls when the difference in grade is thirty (30) inches or less.

#### **Loads.**

Walls retaining earth shall be designed to resist the earth pressure and any water pressure that may exist, without exceeding the allowable stresses in the materials of the wall or the allowable load on the earth. Where effects of hydrostatic head of water are not included in the design of the wall, adequate provision must be made for drainage to prevent building up of pressure. Retaining walls adjacent to

streets, alleys, sidewalks, and railroad tracks shall be designed for a surcharge equivalent to their probable live load.

#### **Gravity Retaining Walls.**

Gravity retaining walls shall be constructed of solid masonry and when of brick, stone, or solid concrete block, shall rest on a concrete base not less than twelve (12) inches in thickness. For walls not exceeding eight (8) feet in height, the width of concrete base may be equal to the thickness of the bottom of the retaining wall. Footings for walls exceeding eight (8) feet in height shall conform to the requirements for building walls. The bottom of the wall or bottom of the concrete base shall be at least two by six (2x6) inches below the surface of the ground, measured from the surface of the lower level.

#### **DRY-STONE RETAINING WALLS**

##### **General Requirements.**

Retaining walls of dry stone shall be constructed in accordance with the following requirements:

(a) The lowest course of stone shall be placed on solid undisturbed earth at least one (1) foot six (6) inches below the level of the ground adjacent to the exposed side of the wall.

(b) The maximum difference in ground elevation shall be ten (10) feet.

(c) A surcharge of earth at maximum slope of one and one-half ( $1\frac{1}{2}$ ) to one (1), on a private driveway or private sidewalk only, will be permitted at the top of the wall.

(d) The exposed face of the wall shall have a batter of at least one and one-half ( $1\frac{1}{2}$ ) inches per foot.

(e) A minimum of one-fourth ( $\frac{1}{4}$ ) of the wall shall be laid in headers. The header stones shall have a length of at least two and one-half ( $2\frac{1}{2}$ ) times their thickness.

(f) Flat well-scabbled stones shall be used. Under no circumstances may rounded rubble stone be used.

(g) Joints between courses shall have a slope downward toward the earth or inner face of the wall.

(h) Vertical joints shall be staggered at least six (6) inches horizontally.

(i) The thickness of wall at any point shall not be less than one-half ( $\frac{1}{2}$ ) the distance from that point to the top of the wall. The minimum thickness at the top of any dry-stone wall shall be twelve (12) inches.

(j) Provisions shall be made to insure adequate drainage through the wall.

(200) Sections 872.1, 872.2 and 872.3 are deleted.

(201) Section 874.0 is amended to read:

Where required by ground water conditions the exterior structural elements of all buildings herein specified shall be waterproofed in accordance with the approved rules.

(202) Sections 874.2, 874.3 and 874.4 are deleted.

(203) Section 875.0 is deleted.

(204) Section 876.0 is deleted.

(205) Sections 904.6, 904.61, 904.7, 904.71, 904.72, 904.73 and 904.74 are deleted.

(206) Section 905.61 and 905.62 are deleted.

(207) Section 1005.93 is amended by adding thereto the following sentence:

All one and two family dwellings shall be equipped with a flue designed and constructed for use with solid and liquid fuels, located so that it will provide a vent for the central heating furnace or boiler.

(208) Article 11 is deleted in its entirety.

(209) Section 1200.3 is amended to read:

All required tests shall be conducted by and at the expense of the owner or his representative, unless otherwise directed by the Chief of the Fire Prevention Bureau.

(210) Section 1201.0 is amended by adding the following definition thereto:

Administrative Official—the Chief of the Fire Prevention Bureau of the City of Alexandria, Virginia.

(211) Section 1201.0 is further amended by changing the definition of "standpipe" therein to read:

Standpipe. A wet or dry fire line installed exclusively for the fighting of fire, extending from the lowest to the topmost story of a building or structure with hose outlets at every floor equipped with reducing valves on wet standpipes only and designed to operate at required working pressures.

(212) Section 1207.0 is amended to read:

Except as required herein and in Section 1209.0, all buildings and structures hereafter erected, other than one- and two-family dwellings (use group L-3) and all buildings heretofore erected which are not already equipped with two and one-half (2½) inch or larger standpipes, shall comply with the provisions of this article.

(213) Section 1207.61 is amended to read:

Standpipe fire lines shall extend from the lowest to the topmost story of the building or part of building which they serve.

(214) Section 1207.8 is amended to read:

In institutional buildings (use Group H-2) and in business buildings (use Group E) having high hazard occupancy, one and one-half (1½) inch hose with three-eighths (3/8) inch nozzle may be permitted when installed with a reducer coupling from the two and one-half (2½) inch standpipe outlet.

(215) Section 1207.91 is amended to read:

Every standpipe fireline shall be equipped with an approved siamese fire department inlet connection having check valves and

automatic drip connection in each outlet. Construction shall be of approved corrosion resistive metal.

When not more than two (2) risers are installed, each riser shall be equipped with a siamese connection. When more than two risers are installed, the number of required additional siamese connections shall be determined by the Fire Marshal.

Siamese connections shall be placed not less than eighteen (18) inches nor more than thirty-six (36) inches above the level of the adjoining ground or sidewalk, and shall be in a location readily accessible to the fire department.

(216) Section 1208.0 is amended to read:

The source of water supply to wet standpipes shall be adequate to maintain a flow of two hundred (200) gallons per minute with not less than fifty (50) pounds per square inch pressure at the topmost outlet of the building or structure and shall conform to the minimum requirements of this section.

(217) Section 1209.0 is amended to read:

In residential buildings and structures (Use Group L-1 and L-1) and business buildings (Use Group E) except where flammable materials, products or other hazardous conditions are present, dry type standpipes will be permitted.

(218) Section 1209.1 is amended to read:

Dry standpipes shall conform with provisions of Section 1207.11 through 1207.14 inclusive, except they shall have a minimum diameter of four (4) inches and shall be capable of delivering two hundred and fifty (250) gallons of water per minutes simultaneously from each of any three (3) outlets under the operation of one (1) fire engine or pumper; except that in existing installations, the administrative official may accept a smaller size when deemed adequate by him.

(219) Section 1209.2 is amended to read:

Siamese fire department connections shall comply with provisions of Section 1207.91 through 1207.94 inclusive.

There shall be a one (1) inch pipe connection from the domestic water supply which will keep the system full of water at all times to enable the detection of any mechanical defects which may develop. Two (2) check valves shall be provided in this pipeline.

(220) Section 1210.0 is amended to read:

First-aid standpipe fire lines for use of the occupants of a building or of the trained fire brigade shall comply with the provisions of this section. Such systems can be combined with the main standpipe fire lines by direct connection to the standpipe riser as provided in Section 1207.62. First-aid standpipes are not required in buildings having dry standpipe systems.

(221) Section 1210.5 is amended to read:

First-aid standpipes shall be provided in hospitals, asylums, places of detention and other institutional buildings (use Groups H-1 and H-2).

(222) Section 1307.5 is deleted.

(223) Section 1308.14 is amended to read:

**Section 1308.14 EXCAVATION PRECAUTIONS AND APPROVAL  
REQUIRED**

No excavation shall be made for any purpose where material from the excavation is carried over the streets, sidewalks, alleys or other public property without first having obtained approval of both the Director of Public Works and Director of Traffic. The Director of Public Works and Director of Traffic are authorized to require that reasonable precautions be taken to safeguard public property and the general public. Such precautions may include but shall not be limited to the designation of entrances, exits, the route of travel, traffic control and the time of operation, and requiring a surety bond or other measures to prevent spillage of materials on public property.

Excavations made for the purpose of removing soil, earth, sand, gravel, rock or other material and not for construction purposes shall be performed in such a manner as will prevent injury to neighboring properties or public streets, sidewalks and alleys and safeguard the general public health and welfare.

(224) Section 1308.21 is amended by inserting in the blank on the second line the figures two and one-half (2½).

(225) Section 1308.22 is amended by inserting the figures "2½" in the blank appearing therein.

(226) Section 1319.0 is deleted.

(227) Section 1320.0 is deleted.

(228) Section 1321.0 is deleted.

(229) Section 1322.0 is amended to read:

Every building in the course of demolition, erection or repair shall be provided with temporary toilet and drinking water facilities approved by the Health Department.

(230) Article 14 is deleted in its entirety, but any references in other articles and sections to Article 14 are to be governed by the appropriate sections of the City Code relating to Signs.

(231) Article 15 is deleted in its entirety but any references in other articles and sections to Article 15 are to be governed by the appropriate sections of the City Code relating to Electricity.

(231A) Section 1600.1 is amended by adding thereto a new paragraph to read:

Section 21, Rule 212 of American Standard Safety Code for Elevators, Dumb-waiters and Escalators, made a part of this code by said Appendix B is amended by adding the following language to the first sentence of the fifth paragraph: "and shall be provided with electric contact switches to prevent the operation of the car when the panel is opened or removed."

(232) Section 1610.0 is amended by adding thereto a new section numbered 1610.2 to read:

**SECTION 1610.2 LIMITATION**

Not more than two (2) elevators shall be installed in any one (1) hoistway enclosure.

(233) Section 1611.0 is deleted.

(234) Section 1621.0 is deleted.

(235) Article 17 is deleted in its entirety but any references in other articles and sections to Article 17 are to be governed by the appropriate sections of the City Code relating to Plumbing.

(236) Article 18 is deleted in its entirety.

(237) Article 19 is deleted in its entirety.

(238) Article 20 is deleted in its entirety.

(239) Article 21 is deleted in its entirety.

#### **Sec. 7-9 Interpretation.**

Whenever in the Basic Building Code or in this chapter it is provided that anything is to be done subject to the approval of or direction of the building official or other city official or there is a similar provision, such provisions shall be construed to give such official only the discretion of determining whether the rules and standards have been complied with; and no such provision shall be construed as giving any official discretionary powers, or power to require conditions not provided for, or power to enforce provisions in an arbitrary or discriminatory manner.

#### **Sec. 7-10 Virginia Fire Hazard Act and Virginia Liquefied Petroleum Gasses Act.**

Nothing in this chapter or in the Basic Code herein adopted shall be construed to invalidate any part of the Virginia Fire Hazard Act contained in Section 26-65 through Section 27-83, inclusive, of the Code of Virginia, 1950, as amended, or any part of the Virginia Liquefied Petroleum Gasses Act contained in Section 27-86 through Section 27-90 inclusive of the Code of Virginia, 1950, as amended.

#### **Sec. 7-11 City Code and Ordinances Unaffected.**

Nothing in this chapter or in the Basic Code herein adopted shall be construed to invalidate any part of the Code of the City of Alexandria, Virginia, 1953, as amended, or any ordinances of the City of Alexandria, Virginia, except for Ordinance numbered 290, and all amendments thereto which by ordinance simultaneously passed with this ordinance are repealed. Matter which is treated in this chapter or in the Basic Code herein adopted or amendments to either hereafter enacted shall be considered as separate from, supplemental to and additional to the treatment contained elsewhere in said City Code or ordinances or amendments to either.

Sec. 7-12. That this ordinance shall be published in a newspaper of general circulation in the City not later than five days following its introduction together with a notice containing the time and place for a public hearing. The Clerk of the Council shall note the date of introduction and first reading, the date of publication, the date of the public hearing, and the date of the second reading and final passage in the minutes of the meeting. This ordinance shall become effective the date of its final passage.

**FRANK E. MANN**  
Mayor

Final Passage: June 5, 1962