Title 18

BUILDING CONSTRUCTION

CHAPTER 18.05
INTERNATIONAL SWIMMING POOL AND SPA CODE

§ 18.05.010. Adoption of the 2021 International Swimming Pool and Spa Code.

The rules, regulations and requirements published by the International Code Council (ICC) under the title "2021 International Swimming Pool and Spa Code," are adopted as and for the rules, regulations and standards for swimming pools and spas within this city as to all matters therein contained with the following amendments.
(Ord. 1969 § 5, (2019); Ord. 2010 § 3, (2022))

§ 18.05.020. Section 302.1 amended—Electrical.

Section 302.1 of the International Swimming Pool and Spa Code is amended to read as follows:

302.1 Electrical. Electrical requirements for aquatic facilities, pools, and spas shall be in accordance with the 2022 California Electrical Code.

Exception: Internal wiring for portable residential spas and portable residential exercise spas.
(Ord. 1969 § 5, (2019); Ord. 2010 § 3, (2022))

§ 18.05.030. Section 302.2 amended—Water service and drainage.

Section 302.2 of the International Swimming Pool and Spa Code is amended to read as follows:

302.2 Water service and drainage. Piping and fittings used for water service, makeup and drainage piping for pools and spas shall comply with the 2022 California Plumbing Code. Fittings shall be listed and approved by the International Association of Plumbing and Mechanical Official (IAPMO) or an equivalent recognized agency and be approved for installation with the piping installed.
(Ord. 1969 § 5, (2019); Ord. 2010 § 3, (2022))

§ 18.05.040. Section 302.5 amended—Backflow protection.

Section 302.5 of the International Swimming Pool and Spa Code is amended to read as follows:

302.5 Backflow protection. Water supplies for pools and spas shall be protected against backflow in accordance with the 2022 California Plumbing Code.
(Ord. 1969 § 5, (2019); Ord. 2010 § 3, (2022))

§ 18.05.050. Section 303 amended—Energy.

Section 303 of the International Swimming Pool and Spa Code is amended to read as follows:

303 Energy. The energy consumption of pools and permanent spas shall be controlled by the requirements in sections 303.1.1 through 303.1.3 and comply with the 2022 California Energy Code.
(Ord. 1969 § 5, (2019); Ord. 2010 § 3, (2022))

CHAPTER 18.06
UNIFORM HOUSING CODE

§ 18.06.010. Adopted.

The 1997 Uniform Housing Code is hereby incorporated as part of the Burlingame Municipal Code.
(Ord. 1969 § 6, (2019); Ord. 2010 § 4, (2022))

CHAPTER 18.07
UNIFORM ADMINISTRATIVE CODE

§ 18.07.010. Adoption of the Uniform Administrative Code.

The rules, regulations and requirements published by the International Conference of Building Officials (ICBO) in one volume under the title "Uniform Administrative Code, 1997 Edition," hereinafter called "administrative code," are adopted as and for the rules, regulations and standards within this city as to all matters therein contained, except as provided in this chapter. The fee schedules in this code shall supersede and replace those published in the building code, plumbing code, mechanical code and electrical code except as provided in this chapter.
(Ord. 1538 § 1, (1996); Ord. 1613 § 5, (1999))

§ 18.07.020. Section 102.2 amended—Aggregate additions, alterations or repairs.

The following sentence is added as the second sentence of the first paragraph of Section 102.2:

However, when additions, alterations or repairs within any 12 month period exceed 50% of the current replacement value of an existing building or structure, as determined by the building official, such building or structure shall be made in its entirety to conform with the requirements for new buildings or structures.
(Ord. 1538 § 1, (1996); Ord. 1613 § 5, (1999))

§ 18.07.030. Section 102.6 amended—Moved buildings.

Section 102.6 is to read as follows:

102.6 Moved buildings.

102.6.1 Permit Required. Before any building or structure is moved on or along any street within the city, a permit shall first be obtained from the building official for such moving. The permit application shall describe the streets and route over which the building will travel, the location of final installation if within the city, and the hours during which building will be moved. The building official will collect a fee as established by resolution of the council from time to time for required investigations and inspections. This fee shall be separate from any construction permit-related fees.

Prior to issuance of permit, the building official shall notify all affected city officials and, in the event that any such officials object to route or time of travel, changes shall be made to meet such objections.

102.6.2 Bond Required. In addition to all other requirements of the building code relating to the moving of buildings and structures, no permit for such moving shall be issued until the applicant shall have filed with the building official a corporate surety bond in favor of the city or a cash deposit in lieu of such bond. The bond shall be conditioned that the applicant will strictly comply with all provisions of the building code relating to the moving of buildings and structures and that the applicant will pay for any and all damage which may result by reason of such moving to any fence, hedge, tree, pavement of streets or sidewalks, pipes, poles and wires, or to any public or private property, and to hold harmless the city against any costs or expense which may accrue in consequence of such moving.

The bond shall be in such amount as determined by the building official and approved by the

city attorney, but in no case less than one thousand dollars. At the option of the applicant, a cash deposit in the same amount may be deposited with the city finance director/treasurer.
(Ord. 1538 § 1, (1996); Ord. 1613 § 5, (1999); Ord. 1823 § 19, (2008))

§ 18.07.040. Section 204 amended—Appeals.

Section 204 is amended to read as follows:

An appeal may be taken to the Planning Commission from a denial of or a refusal to issue a building permit or from any other decision or determination of the building official (1) in order to determine the suitability of alternate materials and types of construction, or (2) to provide for reasonable interpretations of the Building Code.

The decisions of the Planning Commission shall be written and shall be final and shall not be subject to appeal. Copies of the decision shall be furnished to the building official and the appellant.

The Planning Commission may conduct investigations of the suitability of alternate materials and types of construction. It shall adopt reasonable rules regulating the conduct of such investigations and of the appeals herein provided for and may recommend to the City Council any new legislation deemed desirable.
(Ord. 1545 § 1, (1996); Ord. 1613 § 5, (1999))

§ 18.07.050. Section 301.2.1 amended—Building permits—Exempted work.

Subsection 1 of Section 301.2.1 is amended to read as follows:

1. One-story detached accessory buildings used as tool and storage sheds, playhouses and similar uses provided the floor area does not exceed 120 square feet.

(Ord. 1545 § 1, (1996); Ord. 1613 § 5, (1999); Ord. 1975 § 1, (2020))

§ 18.07.060. Section 302.3 amended—Information on plans and specifications.

Section 302.3 is amended by adding a second paragraph to read as follows:

A plot plan shall be included showing location of the proposed building with respect to property lines; lot, block and subdivision of the property: any existing building or buildings that will remain on the property; existing and proposed driveways, utilities, fire hydrants, power poles or any other fixed object between property lines and curb; and an indication of the finished grades at various points about the building and at property lines relative to an established datum such as curb or sidewalk.
(Ord. 1613 § 5, (1999))

§ 18.07.065. Section 303.1 amended—Issuance.

A fourth paragraph is added to Section 303.1 to read as follows:

Demolition permits will only be issued after all approvals required by Title 25 of this code and the California Environmental Quality Act are granted for the overall project for which the demolition is intended, and in any event, will only be issued simultaneously with the construction permits for the project.

Exceptions:

a. If a property owner does not intend to construct anything on the property following demolition in the foreseeable future, the property owner shall file a declaration under penalty of perjury to that effect, and the building official may issue the demolition permit on the condition that the property where the demolition is to occur will be properly secured and landscaped.

b. If the city has ordered the demolition of the structure because it is an imminent danger to public health or safety, the building official may issue the demolition permit on the condition that the property where the demolition is to occur will be properly secured and landscaped even though the property owner has not applied for any construction permits.

c. If a property owner of a non-residential project:

1. Has been granted all project approvals required under Title 25 of this code and under the California Environmental Quality Act; and

2. Produces evidence, to the satisfaction of the Community Development Director, that special circumstances exist to warrant early demolition; and

3. Produces evidence, to the satisfaction of the Community Development Director, that he/she is preparing or is having prepared, plans for the project for which the demolition is intended; and

4. Declares under penalty of perjury that he/she will submit said plans together with a building permit application for the project to the City's building division no later than 90 days after obtaining a demolition permit; then the Community Development Director may authorize the Building Official to issue the demolition permit with appropriate terms and conditions to ensure safety, security and cleanliness of the property.

In the event the property owner fails to obtain a building permit for the project within 60 days of submitting a building permit application to the building division, pursuant to item (c)(4), the property owner shall, within 30 days remove all debris from the site, permanently secure the property and install landscaping to the satisfaction of the Community Development Director. A decision to deny such a request for early demolition may be appealed to the City Council within 10 calendar days of the date of the Community Development Director's decision.

d. If a building or structure is declared a public nuisance under Section 1.16.015, the Community Development Director may issue a demolition permit for said structure on the condition that the property where the demolition is to occur will be properly secured and landscaped. The owner of a building or structure which currently is or may be subject to enforcement proceedings under Section 1.16.015, but which has not been formally declared a nuisance under that provision, may apply to the Community Development Director to obtain a demolition permit for the structure. If granted, such permit shall be conditioned on appropriate securing and landscaping of the property. The decision whether to grant or deny a demolition permit under this subsection (d) shall rest within the discretion of the Community Development Director in light of the conditions present on the property in question.

(Ord. 1795 § 2, (2006); Ord. 1837 § 2, (2009); Ord. 1913 § 2, (2015))

§ 18.07.070. Section 303.4 amended—Permit expiration—Failure to complete.

Section 303.4 is amended to read as follows:

303.4 Expiration. All work to be performed under a building permit shall be completed within the maximum time allowed for the construction as follows:

Total Estimated Cost	Total Time Allowed
Up to and including $50,000	12 months
Over $50,000 to and including $1,000,000	18 months
Over $1,000,000 to and including $2,000,000	24 months
Over $2,000,000 to and including $10,000,000	30 months
Over $10,000,000	36 months

Failure to complete the work within the time allowed, unless an extension of time has been specifically approved by the building official, will cause the permit for such work to become null and void. Failure to commence work on any permit within 12 months of issuance will cause the permit for such work to become null and void. Abandonment of the work authorized by the permit will also cause the permit to immediately become null and void. In each instance, a new permit requiring compliance with all current codes and payment of all fees shall be required to recommence work. The request for an extension of time must be submitted in writing prior to the expiration of the time allowed.

The time limit allowed to complete the work and obtain a building final for any permit that has been extended shall be 180 days from the date of the extension. Failure to complete the work within the time allowed by a first permit extension will cause the permit for such work to become null and void, unless a second extension has been specifically approved by the building official. A new permit requiring compliance with all current codes and payment of all fees shall be required to recommence work. Prior to expiration of a first extension of a building permit, an owner may apply for a second extension. The request for a second extension of time must be submitted in writing prior to the expiration of the time allowed under the first extension. All extension requests shall be made in writing, and must demonstrate justifiable cause for the extension.

Every permit extension issued by the Building Official under the provisions of the technical codes shall expire by limitation and become null and void, if the building or work authorized by such permit extension is not recommenced within 120 days from the date of such permit extension, or if the building or work authorized by such permit extension is suspended or abandoned at any time after the work is recommenced for a period of 120 days. The building or work shall be considered suspended or abandoned if a substantial inspection has not been conducted. The following are considered substantial inspections when all corrections have been performed and that portion of the work has been signed off by a city inspector:

1. Foundation;
2. Underground plumbing, electrical, and mechanical;

3.	Underfloor framing, plumbing, electrical, and mechanical;
4.	Shear walls, hold downs, roof diaphragm, and connectors;
5.	Rough framing, plumbing, electrical, and mechanical;
6.	Insulation;
7.	Sheetrock; and
8.	Final.

After suspension or abandonment and before such work can be recommenced, a new permit shall be first obtained and the fee therefore shall be the amount required for the original permit.

The expiration of a building permit without an extension pursuant to this section shall result in the expiration of any approvals under Chapter 25 (Zoning) of the Burlingame Municipal Code and the California Fire Code, including local amendments.

The fees for the first extension shall be the amount required for the original permit. If no changes in plans or specifications have been made, no additional plan checking fees will be required. The fee for any additional extension following the first extension shall be two times the original building permit fee.

Notwithstanding any other provision of this section, if a building permit was issued for part or all of a project or building which was required to obtain a special permit, variance or traffic allocation, the building permit shall expire and such special permit, variance or traffic allocation shall be null and void if substantial progress has not occurred within one year from the issuance of the building permit. Substantial progress shall be when the total foundation has been formed, inspected and poured. The Council may grant an extension of a permit upon the showing by the permittee of hardship or unforeseen circumstances.
(Ord. 1545 § 1, (1996); Ord. 1613 § 5, (1999); Ord. 1603 § 12, (1998); Ord. 1802 § 2, (2007); Ord. 1975 § 1, (2020))

§ 18.07.075. Short time extension to a building permit.

(a) The building official shall have the authority to issue a single short time extension of a building permit if all of the following conditions are met:

(1) No other extensions for the project have been previously granted; and

(2) The request for a short time extension is received in writing; and

(3) The person requesting a short time extension must present the original or a copy of the original construction plans that were approved by the city; and

(4) There is a record showing that the project has passed all required inspections, except for the final inspection; and

(5) A fee generally equal to two hourly inspections as set by city council resolution is paid at the time the short time extension is issued.

(b) The short time extension shall expire 30 days after issuance. Failure to complete the work within the time allowed by the short time extension will cause the permit for such work to become null and void. A new permit requiring compliance with all current codes and payment of all fees shall be required to recommence work.

(Ord. 1802 § 4, (2007)

§ 18.07.080. Section 304.2 amended—Permit fees.

(a) The first sentence of the first paragraph of Section 304.2 is amended to read as follows:

The fee for each permit shall be as established by resolution or ordinance adopted by the city council, plus any additional fees which may be established or mandated by state or federal law or city ordinance.

(b) The second sentence of the second paragraph of Section 304.2 is amended to read as follows:

The minimum valuation shall be as set forth as the "Building Valuation Data" in the most recent edition of the Building Safety Journal® as published by the International Code Council (ICC).

(Ord. 1545 § 1, (1996); Ord. 1613 § 5, (1999); Ord. 1795 § 3, (2006); Ord. 1813 § 5, (2007))

§ 18.07.090. Section 304.3 amended—Plan review fees.

Section 304.3 is amended by adding a new second and third paragraphs:

When the submittal documents require review for compliance with State access regulations, an access plan review fee shall also be paid at the time of submittal. This fee shall be as established by resolution or ordinance adopted by the city council.

When the submittal documents require review for compliance with State energy regulations, an energy plan review shall also be paid at the time of submittal.

This fee shall be as established by resolution or ordinance adopted by the city council.

(Ord. 1545 § 1, (1996); Ord. 1613 § 5, (1999); Ord. 1795 § 4, (2006))

§ 18.07.100. Section 304.5 amended—Investigation fees—Work without a permit.

(a) The first sentence of Section 304.5.1 is amended to read as follows:

304.5.1 Investigation. Whenever construction or work for which a permit is required by this code, or any other code adopted or incorporated by reference as a part of this code, has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for the work. Demolition of all or any part of a structure without a required permit shall be subject to the investigation and fees imposed by this section.

(b) Section 304.5.2 is amended to read as follows:

304.5.2 Fee. An investigation fee, in addition, to the permit fee, shall be collected as a civil penalty, whether or not a permit is then or subsequently issued. The investigation fee shall be up to ten times the building permit fee. The investigation fee shall be determined by the building official and shall be based on the staff time reasonably required to resolve all of the issues related to the work that has been performed without a permit. No construction

permit shall be issued until the investigation fee has been paid in full.

Any person assessed such a fee may file an appeal with the city clerk within 10 days after written notice to such person of the assessment. A hearing upon such appeal shall thereafter be held by the city council; its decisions thereon shall be final.

Nothing in this section shall relieve any persons from fully complying with the requirements of this code, or with any codes incorporated by reference and made a part of this code in the execution of the work, or from any other fees or penalties prescribed by law.

(Ord. 1545 § 1, (1996); Ord. 1613 § 5, (1999); Ord. 1795 § 5, (2006))

§ 18.07.110. Section 305.1 amended—General.

The following paragraphs are added to Section 305.1 to read as follows:

No person shall erect (including excavation and grading), demolish, alter or repair any building or structure other than between the hours of eight a.m. and seven p.m. on weekdays, and nine a.m. and six p.m. on Saturdays, except in circumstances where continuing work beyond legal hours is necessary to building or site integrity, including (but not limited to) large concrete pours, environmental considerations, state or federal requirements, or in cases where it is in the interest of public health and safety, and then only with written approval from the building official, which shall be granted for no longer than necessary to complete the portion of the project for which the exception was granted. No person shall erect (including excavation and grading), demolish, alter or repair any building or structure on Sundays or on holidays, except in the circumstances described earlier in this paragraph, and then only with written approval from the building official, which shall be granted for no longer than necessary to complete the portion of the project for which the exception was granted. For the purpose of this section, holidays are the days set forth in Section 13.04.100 of this code. The restrictions stated in this section shall not apply to work that does not require a permit under any applicable law or regulation, or to work that takes place inside a completely enclosed building and does not exceed the exterior ambient noise level per the BMC 25.58.050.

In the Bayfront Commercial (BFC), Innovative Industrial (I/I) and Rollins Road Mixed Use (RRMU) zones only, construction work may begin at seven a.m. instead of eight a.m. on weekdays. However, the use of chainsaws, jackhammers, pile-drivers or pneumatic impact wrenches shall be prohibited from seven a.m. to eight a.m., unless written approval is granted by the building official pursuant to an exception listed in the above paragraph.

(Ord. 1852 § 2, (2010); Ord. 1930 § 1, (2016); Ord. 1985 § 1, (2020))

§ 18.07.120. Section 108 added—Safety assessment placards.

Section 108 of the 1997 Uniform Administrative Code is added to read as follows:

108 Safety assessment placards.

Intent. This section establishes standard placards to be used to indicate the condition of a structure for continued occupancy. The Section further authorizes the Chief Building Official and his or her authorized representatives to post the appropriate placard at each entry point to a building or structure upon completion of a safety assessment.

Application of Provisions. The provisions of this chapter are applicable to all buildings and

structures of all occupancies regulated by the City of Burlingame. The City Council may extend the provisions as necessary.

Definition.*Safety assessment* is a visual, non-destructive examination of a building or structure for the purpose of determining the condition for continued occupancy.

Placards.

(a) The following are verbal descriptions of the official jurisdiction placards to be used to designate the condition for continued occupancy of buildings or structures. Copies of actual placards are attached.

INSPECTED - Lawful Occupancy Permitted is to be posted on any building or structure wherein no apparent structural hazard has been found. This placard is not intended to mean that there is no damage to the building or structure. (Green)

RESTRICTED USE is to be posted on each building or structure that has been damaged wherein the damage has resulted in some form of restriction to the continued occupancy. The individual who posts this placard will note in general terms the type of damage encountered and will clearly and concisely note the restrictions on continued occupancy. (Yellow)

UNSAFE - Do Not Enter or Occupy is to be posted on each building or structure that has been damaged such that continued occupancy poses a threat to life safety. Buildings or structures posted with this placard shall not be entered under any circumstance except as authorized in writing by the Chief Building Official, or his or her authorized representative. Safety assessment teams shall be authorized to enter these buildings at any time. This placard is not to be used or considered as a demolition order. The individual who posts this placard will note in general terms the type of damage encountered. (Red or Orange)

(b) The name of the jurisdiction, its address, and phone number shall be permanently affixed to each placard.

(c) Once it has been attached to a building or structure, a placard is not to be removed, altered or covered until done so by an authorized representative of the Chief Building Official. It shall be unlawful for any person, firm or corporation to alter, remove, cover, or deface a placard unless authorized pursuant to this section.

RESTRICTED USE

WARNING: This structure has been inspected and found to be damaged as described below.

Damage Comments: _____

_____

_____

_____

_____

Report any unsafe condition to the City of Burlingame Building Division at **650-558-7260**. Re-inspection may be required.

Entry, occupancy, and lawful use are restricted as follows: _____

_____

_____

_____

_____

Site/Building Address: _____

_____

Date: _____

Time: _____ a.m./p.m.

Caution: Post inspection conditions may increase damage and risk.

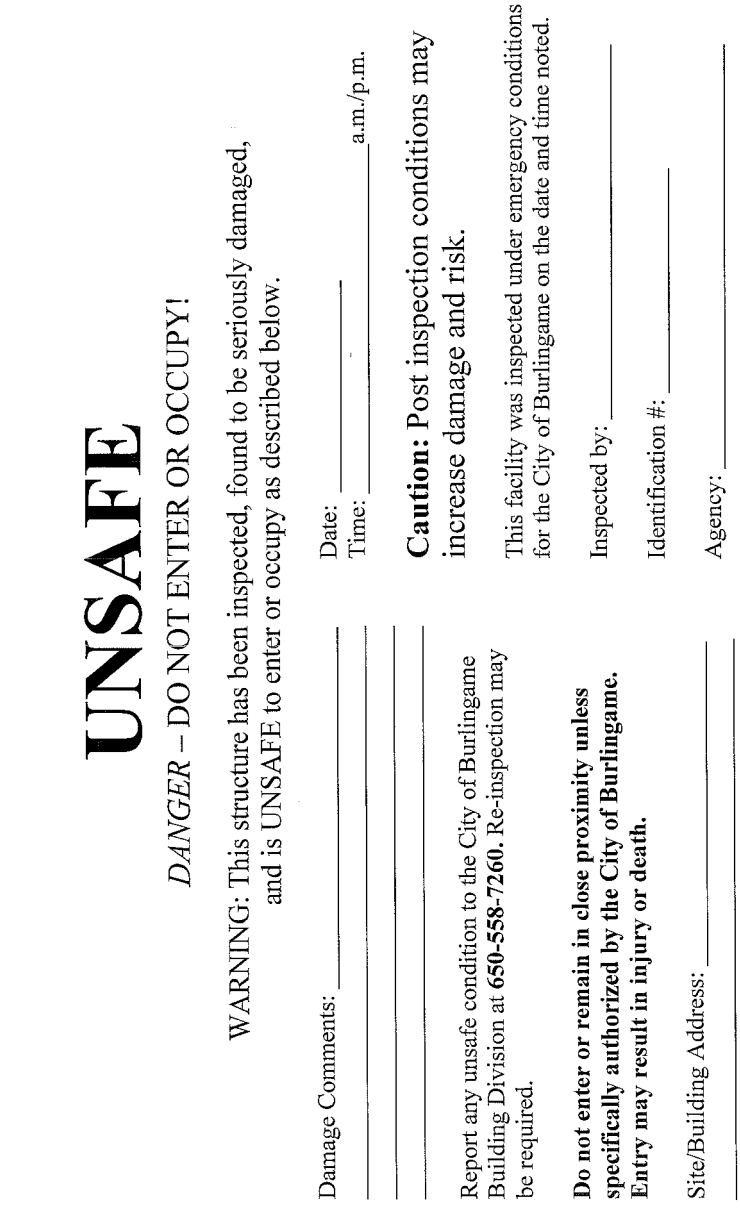
This facility was inspected under emergency conditions for the City of Burlingame on the date and time noted.

Inspected by: _____

Identification #: _____

Agency: _____

DO NOT REMOVE, ALTER, OR COVER THIS PLACARD UNTIL AUTHORIZED BY THE CITY OF BURLINGAME. (Burlingame Municipal Code, Section 18.07.120)



(Ord. 1889 § 5, (2013); Ord. 1933 § 5, (2016); Ord. 1969 § 7, (2019); Ord. 2010 § 5, (2022))

§ 18.07.130. Streamlined permitting process for small residential rooftop solar systems.

Section 130 of the 1997 Uniform Administrative Code is added to read as follows:

130 Streamlined permitting process for small rooftop solar system installations.

Purpose. The purpose of the section is to adopt an expedited, streamlined solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 521, Statutes 2014) to achieve timely and cost-effective installations of small residential rooftop solar energy systems.

The section encourages the use of solar systems by removing unreasonable barriers, minimizing costs to property owners and the City of Burlingame, and expanding the ability of property owners to install solar energy systems. The section allows the City of Burlingame to achieve these goals while protecting the public health and safety.

Definitions.

Solar energy system means either of the following:

1. Any solar collector or other solar energy device whose primary purpose is to provide for the collection, storage, and distribution of solar energy for space heating, space cooling, electric generation, or water heating.

2. Any structural design feature of a building, whose primary purpose is to provide for the collection, storage, and distribution of solar energy for electricity generation, space heating or cooling, or for water heating.

Small residential rooftop solar energy system means all of the following:

1. A solar energy system that is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal.

2. A solar energy system that conforms to all applicable state fire, structural, electrical, and other building codes as adopted or amended by the City of Burlingame, and all state and City of Burlingame health and safety standards including paragraph (3) of subdivision (c) of Section 714 of the Civil Code.

3. A solar energy system that is installed on a single-family or duplex-family dwelling.

4. A solar panel or module array that does not exceed the maximum legal building height as defined by the City of Burlingame

Electronic submittal means the utilization of one or more of the following:

1. Email; or

2. The Internet.

Association means a nonprofit corporation or unincorporated association created for the purpose of managing a common interest development.

Common interest development means any of the following:

1. A community apartment project; or

2. A condominium project; or

3. A planned development; or

4. A stock cooperative.

Specific, adverse impact means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

Reasonable restrictions on a solar energy system are those restrictions that do not significantly increase the cost of the system or significantly decrease its efficiency or specified performance,

or that allow for an alternative system of comparable cost, efficiency, and energy conservation benefits.

Restrictions that do not significantly increase the cost of the system or decrease its efficiency or specified performance means:

1. For Water Heater Systems or Solar Swimming Pool Heating Systems: an amount exceeding 10 percent of the cost of the system, but in no case more than $1,000, or decreasing the efficiency of the solar energy system by an amount exceeding 10 percent, as originally specified and proposed.

2. For Photovoltaic Systems: an amount not to exceed $1,000 over the system cost as originally specified and proposed, or a decrease in system efficiency of an amount exceeding 10 percent as originally specified and proposed.

Applicability. This section applies to the permitting of all small residential rooftop solar energy systems in the City of Burlingame. Small residential rooftop solar energy systems legally established or permitted prior to the effective date of the ordinance codified in this section are not subject to the requirements of this section unless physical modifications or alterations are undertaken that materially change the size, type, or components of a small rooftop energy system in such a way as to require new permitting. Routine operation and maintenance shall not require a permit.

Solar energy system requirements. All solar energy systems shall meet applicable health and safety standards and requirements imposed by the state and the City of Burlingame and the Central County Fire Department.

Solar energy systems for heating water in single-family residences and for heating water in commercial or swimming pool applications shall be certified by an accredited listing agency as defined by the California Plumbing Code and California Mechanical Code.

Solar energy systems for producing electricity shall meet all applicable safety and performance standards established by the California Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability.

Submittal requirements. All documents required for the submission of an expedited solar energy system application shall be made available on the City of Burlingame website.

Electronic submittal of the required permit application and associated documents for small, residential rooftop solar energy system permits shall be by email, or the Internet. As an alternative an applicant may submit a permit application and associated documents at the Building Division front counter during regular business hours.

An applicant's electronic signature will be accepted on all forms, applications, and other documents in lieu of a wet signature.

The City of Burlingame shall adopt a standard plan and checklist of all requirements with which small residential rooftop solar energy systems must comply to be eligible for expedited review.

The small residential rooftop solar system permit process, standard plans, and the checklist shall substantially conform to recommendations for expedited permitting, including the checklist and standard plans contained in the most current version of the *California Solar Permitting Guidebook* adopted by the Governor's Office of Planning and Research.

All fees prescribed for the permitting of small residential rooftop solar energy system must comply with Government Code Section 65850.55, Government Code Section 66015, Government Code Section 66016, and State Health and Safety Code Section 17951.

Plan review, permit, and inspection requirements. The Building Division shall provide an administrative, nondiscretionary plan check review process to expedite approval of small residential rooftop solar energy systems within 30 days of the adoption of the ordinance codified in this section.

The Building Division shall process, review, and approve the application for the installation or use of a solar system in the same manner as an application for review of an architectural modification to the property, and shall not be willfully avoided or delayed.

If an application is deemed incomplete, a written correction notice detailing all deficiencies in the application and any additional information or documentation required to be eligible for expedited permit issuance shall be sent to the applicant for resubmission.

If an application for the installation of a solar system is not denied in writing within 45 days of receipt of a complete application the application shall be deemed approved, unless the delay is the result of a reasonable request for additional information.

The City of Burlingame Planning Division may require an applicant to apply for a use permit if the Planning Division finds, based on substantial evidence, that the solar energy system could have a specific, adverse impact upon the public health and safety. Such decisions may be appealed to City of Burlingame Planning Commission.

Review of the permit application shall be limited to the Building Division's review of whether the application meets local, state, and federal health and safety requirements. If a use permit is required, the building official may deny an application for the use permit if the building official makes written findings based upon substantive evidence in the record that the proposed installation would have a specific, adverse impact upon public health or safety and there is no feasible method to satisfactorily mitigate or avoid, as defined, the adverse impact. Such findings shall include the basis for the rejection of the potential feasible alternative for preventing the adverse impact. Such decisions may be appealed to the City of Burlingame Planning Commission. Any condition imposed on an application shall be designed to mitigate the specific, adverse impact upon health and safety at the lowest possible cost.

A "feasible method to satisfactorily mitigate or avoid the specific, adverse impact" includes, but is not limited to, any cost-effective method, condition, or mitigation imposed by the City of Burlingame on another similarly situated application in a prior successful application for a permit. The City of Burlingame shall use its best efforts to ensure that the selected method, condition, or mitigation meets the conditions of subparagraphs (A) and (B) of paragraph (1) of subdivision (d) of Section 714 of the Civil Code defining restrictions that do not significantly increase the cost of the system or decrease its efficiency or specified performance.

The City of Burlingame shall not condition approval of an application for a small residential rooftop solar energy system on the approval of an association, as defined in Section 4080 of the Civil Code.

Only one inspection shall be required and performed by the Building Division for small residential rooftop solar energy systems eligible for expedited review. During the required inspection, if it is found that the installation does not conform to the approved plans and/or comply with the current California Building Code requirements then an additional, follow-up inspection shall be required.

If a small residential rooftop solar energy system fails inspection, a subsequent inspection is authorized and required but need not conform to the requirements of this section.

A separate fire inspection may be performed by the Central County Fire Department, if required. The inspection shall be done within three business days and may include consolidated inspections.

(Ord. 1920 § 2, (2015))

§ 18.07.140. Permit process for electric vehicle charging stations.

A. Purpose. The purpose of this section is to adopt an expedited, streamlined permitting process for electric vehicle charging stations that complies with California Government Code Section 65850.7 to achieve timely and costeffective processing of applications for the installation of electric vehicle charging stations. The provisions encourage the use of electric vehicle charging stations by removing unreasonable barriers, minimizing costs to property owners and the city, and expanding the ability of property owners to install electric vehicle charging stations. The provisions allow the city to achieve these goals while protecting the public health and safety.

B. Definitions.

"Electric vehicle charging station(s)" or "charging station(s)" means any level of electric vehicle supply equipment station that is designed and built in compliance with California Code of Regulations, Title 24 Part 3 California Electrical Code Article 625, as it reads on the effective date of the ordinance codified in this section or as it may be amended, and delivers electricity from a source outside an electric vehicle into a plug-in electric vehicle.

"Specific, adverse impact" means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

C. Applicability. This section applies to the permitting of all electric vehicle charging stations in the city. Electric vehicle charging stations legally established or permitted prior to the effective date of the ordinance codified in this section are not subject to the requirements of this section unless physical modifications or alterations are undertaken that materially change the size, type, or components of a pre-existing charging station in such a way as to require new permitting. Routine operation and maintenance shall not require a permit.

D. Electric Vehicle Charging Station Requirements. All electric vehicle charging stations shall meet applicable health and safety standards and requirements imposed by the state and the city.

Electric vehicle charging stations shall meet all applicable safety and performance standards established by the California Electrical Code, the Society of Automotive Engineers, the National Electrical Manufacturers Association, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission and other applicable laws and regulations regarding safety and reliability.

E. Submittal Requirements. All documents required for the submission of an electric vehicle charging station application shall be made available on the city's website. Electronic submittal of the required permit application and documents by facsimile shall be made available to all electric vehicle charging station permit applicants. Because the city does not have an adopted electronic signature protocol as of the time of the adoption of the ordinance codified in this section, an electronic signature cannot be accepted in lieu of a wet signature on the application. However, as soon as the city adopts such a protocol, electronic signatures will be accepted on charging station applications, and the city's website and application materials will be updated accordingly.

The city's building division shall adopt a checklist of all requirements with which the electric vehicle charging stations shall comply to be eligible for expedited review. The

electric vehicle permit process, standard(s), and checklist(s) may substantially conform to recommendations for permitting, including the checklist and standards contained in the "Plug-In Electric Vehicle Infrastructure Permitting Checklist" of the "Zero-Emission Vehicles in California: Community Readiness Guidebook" published by the California State Office of Planning and Research.

For purposes of calculating permit fees under the city's adopted master fee schedule, the value to be used in computing the electric vehicle charging station permit and plan review shall be the total value of all construction work for which the permit is issued as well as any other equipment. The determination of value or valuation under any of the provisions of this section shall be made by the building official.

F. Plan Review, Permit, and Inspection Requirements. The building official shall implement an administrative review process to expedite approval of electric vehicle charging stations. Only permits or approvals that conform to all applicable provisions of this chapter and Title 18, including design review, shall be issued. The building official or designated staff members shall make determinations of conformance. Where the application meets the requirements of the approved checklist and standards and there are no specific, adverse impacts upon public health or safety, the building division shall complete the building permit approval process, which is nondiscretionary. Review of the application for electric vehicle charging stations shall be limited to the building official's review of whether the application meets local, state, and federal health and safety requirements.

The building official may require an applicant to apply for an "electric vehicle charging station use permit" if the building official makes written findings that the proposed electric vehicle charging stations could have a specific, adverse impact upon the public health and safety. The building official's decision may be appealed to the city planning commission.

If an electric vehicle charging station use permit is required, the building official may only deny an application for the electric vehicle charging station use permit if the official makes written findings based upon substantial evidence in the record that the proposed installation would have a specific, adverse impact upon public health or safety and there is no feasible method to satisfactorily mitigate or avoid the adverse impact. Such findings shall include the basis for the rejection of the potential feasible alternative for preventing the adverse impact. The building official's decision may be appealed to the city planning commission.

If the building official issues an electric vehicle charging station use permit, the permit may include conditions designed to mitigate the specific, adverse impact upon health and safety at the lowest possible cost.

A feasible method to satisfactorily mitigate or avoid the specific, adverse impact includes, but is not limited to, any cost-effective method, condition, or mitigation imposed by the city on another similarly situated application in a prior successful application for a permit.

If an application is deemed incomplete, a written correction notice detailing all deficiencies in the application and any additional information or documentation required to be eligible for expedited permit issuance shall be sent to the applicant for resubmission. A separate fire inspection may be performed by the Central County Fire Department, if required.

(Ord. 1946 § 1, (2017))

CHAPTER 18.08
BUILDING CODE

Note: Prior ordinance history: Ords. 1813 and 1856.

§ 18.08.005. Adoption of 2022 California Building Code, Part 2, Volume 1.

The rules, regulations and requirements published by the International Code Council (ICC) under the title "2021 International Building Code Volume 1" and adopted as the "2022 California Building Code Volume 1" including state of California amendments thereto, are adopted as and for the rules, regulations and standards within this city as to all matters therein contained with the following amendments.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.010. Section 406.1.1 added—Car stacking system back up power.

Section 406.1.1 of the 2022 California Building Code is added to read as follows:

406.1.1 Commercial and Multi-Family Dwelling car stacking systems shall be provided with back-up power to allow access to and egress from such systems during a power outage. The back-up power shall comply with the manufacture specifications and the 2022 California Electrical Code.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.015. Section 406.6.2 added—Ventilation.

Section 406.6.2.1 of the 2022 California Building Code is added to read as follows:

406.6.2.1 Ventilation. A garage containing electrical charging stations shall provide a manually operated control switch that controls ventilation operations located in the command/control room for emergency operations.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.020. Sections 502.1 amended—Address identification.

Section 502.1 of the 2022 California Building Code is added to read as follows:

502.1. Address identification.

Address numbers. Size of numbers shall be as follows:

1.	When the structure is 36 to 50 feet from the street or fire apparatus access, a minimum of one-half inch (½″) stroke by six inches (6″) high is required.
2.	When the structure is more than 50 feet from the street or fire apparatus access, a minimum of one inch (1″) strike by nine inches (9″) high is required.

Multi-Tenant Buildings. Numbers or letters shall be designated on all occupancies within a

building. Size shall be a minimum of one-half inch (1/2″) stroke by four inches (4″) high and on a contrasting background. Directional address numbers or letters shall be provided. Said addresses or numbers shall be posted at a height no greater than 5 feet, 6 inches (5′ 6″) above the finished floor and shall be either internally or externally illuminated in all new construction.

Rear addressing. When required by the chief, approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the fire apparatus road at the back of a property or where rear parking lots or alleys provide an acceptable vehicular access. Number stroke and size shall comply with Section 502.1.

ADU Addressing. Address for Residential Accessory Dwelling Units shall meet the City of Burlingame specifications.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.025. Section 502.2 added—Utility identification.

Section 502.2 of the 2022 California Building Code is added to read as follows:

502.2 Utility identification. In multi-unit commercial and residential buildings, gas and electric meters, service switches and shut off valves shall be clearly and legibly marked to identify the unit or space that they serve.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.030. Section 903.1.2 added—Additions and alterations.

Section 903.1.2 of the 2022 California Building Code is added to read as follows:

903.1.2 Additions and alterations. The standard for determining the size of addition and/or alteration for determining the threshold for fire sprinkler systems shall be determined by the following:

1. The square footage of every room being added and/or altered shall be included in the calculation of total square footage of addition and/or alteration.

2. The entire square footage shall be considered added or altered when at least 50% or greater of interior wall sheeting or ceiling of any one wall within a room or area is new, removed, or replaced.

(Ord. 2010 § 6, (2022))

§ 18.08.035. Section 903.1.3 added—Applicable to all sprinklered buildings.

Section 903.1.3 of the 2022 California Building Code is added to read as follows:

903.1.3. Applicable to all sprinklered buildings.

1. When a commercial or multi-family building is partially retrofitted with an approved automatic sprinkler fire extinguishing system pursuant to this section, the building owner shall complete the fire extinguishing system retrofit throughout the unprotected building interior areas within six years of completing the initial partial retrofit or within every tenant space where a building permit is obtained, whichever is less.

2. When a residential building is partially retrofitted with an approved automatic sprinkler fire extinguishing system pursuant to this section, the building fire extinguishing system retrofit

shall be completed throughout the unprotected building interior areas within two years from completing the initial partial retrofit.

3. When a property owner or responsible party of a commercial or residential building chooses option 1 or 2 from above, the property owner shall file a deed restriction with San Mateo County Assessor's Office and obtain a performance bond with Central County Fire Department to ensure compliance with Section 18.08.040. The bond shall be equal to or greater than the estimated cost of completion, as determined by Central County Fire Department.

(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.040. Section 903.2 amended—Where required.

Section 903.2 of the 2022 California Building Code is deleted and replaced with the following:

Section 903.2 Where required. Approved automatic fire sprinkler systems shall be installed in all new occupiable and/or habitable buildings and structures. In addition, approved automatic fire sprinkler systems shall be provided in locations described in Sections 903.2.1 through 903.2.23.

Exceptions:

1. When approved by the fire chief, canopy structures used solely for vehicular parking which have a photovoltaic system attached are not required to be equipped with a fire sprinkler system as long as the structure meets distance requirements to other structures and property lines.

2. Group U occupancies less than 1,200 square feet.

(Ord. 2010 § 6, (2022))

§ 18.08.045. Section 903.2.10.3 added—Lithium-ion batteries in vehicles.

Section 903.2.10.3 of the 2022 California Building Code is added to read as follows:

903.2.10.3 Lithium-ion batteries in vehicles. Areas which contain electric vehicle charging stations shall have a fire sprinkler density design of a minimum Extra Hazard, Group 2 for the coverage of charging stations and for 15 ′ in any direction of charging stations.

(Ord. 2010 § 6, (2022))

§ 18.08.050. Section 903.2.22 added—Existing buildings and structures.

Section 903.2.22 of the 2022 California Building Code is added to read as follows:

903.2.22 Existing buildings and structures. All existing buildings and structures shall be retroactively protected by an approved automatic extinguishing system when the following conditions exist:

1. Commercial and multi-family residential buildings with a total building floor area in excess of 2,000 square feet or more than two stories in height, and when additions or alterations for which a building permit is required will exceed 1,200 square feet in area.

   Exception: Group U occupancies less than 1200 square feet.

2. Residential one- and two-family dwellings and structures with a total building floor area in

excess of 2,000 square feet or more than two stories in height, and when additions or alterations for which a building permit is required will exceed 750 square feet in area.

Exceptions:

a. Additions or alterations of commercial, multi-family residential, and one and two-family residential buildings that do not exceed 20% of the total square footage of the entire completed building.

b. The following scopes of work are excluded from calculations to determine area of alteration: building roof repair/replacement; fire damage repair; building heating and/or cooling unit repair/replacement; and any other federal, state and local construction code upgrade requirements including, but not limited to, the seismic retrofit requirements, asbestos, and other hazardous material abatement.

(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.055. Section 903.3.23 added—Aggregate.

Section 903.3.23 of the 2022 California Building Code is added to read as follows:

903.3.23 Aggregate.

1. When more than one addition and/or alteration for which building permits are required are submitted within a two year period from the closure date of the initial permit, the sum of the square footage of these additions and/or alterations shall be aggregated for the purpose of determining calculations in Section 18.08.050.

(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.060. Section 903.3.1.4 added—Inspector's test valves.

Section 903.3.1.4 of the 2022 California Building Code is added to read as follows:

903.3.1.4 Inspector's test valves. Single-family residential fire sprinkler systems within buildings greater than 3,600 square feet shall be equipped with an inspector's test valve for each system and located the furthest point away from the sprinkler riser.

(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.065. Sections 903.3.1.5 and 903.3.1.6 added—Additional residential sprinkler locations.

Section 903.3.1.5 of the 2022 California Building Code is added to read as follows:

903.3.1.5 Additional residential sprinkler locations. The installation of a residential fire sprinkler system shall conform to the following:

1. Sprinklers shall be required throughout carports and garages.

   Exception: Detached carports and garages less than 2,000 square feet in area and separated from residential buildings by a minimum of 10 feet.

2. Sprinkler coverage shall be provided in the following locations:

a.	Attic access openings
b.	Areas of attics and crawl spaces containing storage, mechanical and/or electrical equipment.

Section 903.3.1.6, CFC is added to read as follows:

903.3.1.6 Additional Commercial and Multi-Family Dwelling Sprinkler Locations. Rooms or spaces which contain vehicle parking lifts or stacking systems shall be designed as an Extra Hazard Classification. Sprinkler design to include sidewall sprinkler heads designed at minimum Ordinary Group 2 in between each level.

Exception: Buildings classified as single-family dwellings.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.070. Section 903.4.1 Amended—Fire sprinkler monitoring system.

Section 903.4.1 CBC is amended by adding the following:

903.4.1 Monitoring. For new fire sprinkler monitoring systems, the approved supervisory station shall be defined as a UL approved central receiving station.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.075. Section 907.7 added—Acceptance and certification.

Section 907.7 CFC is amended with the following:

907.7 Acceptance Test and Certification. Upon completion of the installation, the fire alarm system and all fire alarm components shall be tested in accordance with NFPA 72. New fire alarm systems installed in commercial and multi-family buildings shall be UL-Certified. Certificate shall be posted next to fire alarm control panel at time of final inspection.
(Ord. 2010 § 6, (2022))

§ 18.08.080. Section 1502.4.1 added—Roof drainage requirements.

Section 1502.4.1 of the 2022 California Building Code is added to read as follows:

1502.4.1 Roof drainage requirements. In all zones other than R-1, the water from the roof of any building and from any paved area which would flow by gravity over public sidewalk shall be carried by means of conductors under the sidewalk and through the curb to the gutter, or other approved location.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.085. Section 1502.4.2 added—Surface drainage requirements.

Section 1502.4.2 of the 2022 California Building Code is added to read as follows:

1502.4.2 Surface drainage requirements. No storm water or underground water draining from any lot, building, or paved area shall be allowed to drain to adjacent properties nor shall this water be connected to the city's sanitary sewer system. Regardless of the slope of the source property, such water shall drain to either artificial or natural storm drainage facilities by gravity

or pumping.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.090. Section 1505.1 amended—Fire classification.

The first paragraph of Section 1505.1 of the 2022 California Building Code is amended to read as follows:

1505.1 General. Roof assemblies shall be divided into the classes defined below. Class A or Class B roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D 2898. The minimum roof coverings installed on buildings shall comply with the Table 1505.1 as amended.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.095. Table 1505.1 amended—Roof minimum fire retardant classes.

Table No. 1505.1 of the 2022 California Building Code is amended to read as follows:

Table 1505.1 Roof minimum fire retardant classes.

TABLE NO. 1505.1[a]
MINIMUM ROOF COVERING CLASSIFICATION FOR TYPES OF CONSTRUCTION

Type	IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
Roof Covering	B	B	B	B	B	B	B	B	B

a. Unless otherwise required in accordance with Chapter 7A.

(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.100. Section 1505.1.2 amended—Roof covering within all other areas.

Section 1505.1.2 of the 2022 California Building Code is amended to read as follows:

1505.1.2 Roof covering within all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.105. Adoption of 2022 California Building Code, Part 2, Volume 2.

The rules, regulations and requirements published by the International Code Council under the title "2021 International Building Code, Volume 2" and adopted as the "2022 California Building Code, Volume 2," including Appendices A, F, I, J, O, and P are adopted as and for the rules, regulations and standards within this city and as to all matters therein contained except

as provided in this chapter. The mandatory requirements of any adopted appendices to the code shall be enforceable to the same extent as if contained in the body of the code.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.110. Section 1807.2.1 amended—Retaining walls.

Section 1807.2.1 of the 2022 California Building Code is amended by adding the following paragraphs at the end of the section:

1807.2.1 General.

When a structure is to support a lateral load which retains fill which supports another structure, supports the toe of a slope which is over four feet in height measured from the bottom of the footing, or is required by the city engineer, it shall be designed by a licensed architect or engineer and approved by the city engineer.

The following types of retaining walls shall be of concrete or other material which shall have a minimum service life of 75 years for all major support systems and 50 years for all replaceable support systems: Walls that are engineered, support a lateral load over 18″ at property line, support an engineered surcharge, support a structure, or support a toe of a slope. A fence structure may not be substituted for a retaining wall.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.115. Section 3005.5 amended—Shunt trip.

Section 3005.5 of the 2022 California Building Code is amended by adding the following:

3005.5 Shunt Trip Prohibited. Where elevator hoist ways and/or elevator machine rooms containing elevator control equipment are located within buildings equipped with automatic fire sprinklers, the following is required in lieu of a shunt trip:

1. The elevator machine room shall be constructed with the minimum fire rating as the hoist way. For non-rated hoistways, the minimum rating shall be one hour throughout in accordance with Section 707 of the California Building Code for fire barriers.

2. Fire sprinklers at the top of the hoist way and inside the elevator machine room shall not be installed.

3. Means for elevator shutdown shall not be installed.

(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.120. Section 3202 amended—Encroachments.

Section 3202 of the 2022 California Building Code is deleted and replaced with the following.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.125. 3202.1 amended—Encroachments below grade.

3201.1 Encroachments below grade. Encroachments below grade that act as temporary support to build the structure shall be allowed per the City Fee Schedule under "Special Encroachment Permits" at the time of the building permit issuance. An agreement for the encroachments shall be in place prior to the commencement of the construction work.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.130. Section 3202 amended—Encroachments above grade and below eight feet in height.

Encroachments into the public right-of-way above grade and below 8 feet in height. Encroachments into the public right-of-way above grade and below 8 feet in height shall comply with the City Municipal Code Chapter 22.26 Awning, Canopy and Marquee signs. Doors and windows shall not open or project into the public right-of-way.
(Ord. 1889 § 6, (2013); Ord. 1933 § 6, (2016); Ord. 1969 § 8, (2019); Ord. 2010 § 6, (2022))

§ 18.08.135. Section 3202.3 amended—Encroachments eight feet or more above grade.

3202.3 Encroachments 8 feet or more above grade. Encroachments into the public right-of-way 8 feet or more above grade shall comply with the City Municipal Code Chapter 22.26 Awning, Canopy and Marquee signs. All other encroachments such as, but not limited to, windows, balconies, architectural features and mechanical equipment shall not project into the public right-of-way.
(Ord. 2010 § 6, (2022))

CHAPTER 18.09
MECHANICAL CODE

§ 18.09.010. Adoption of 2022 California Mechanical Code.

The rules, regulations and standards printed in one volume and published by the International Association of Plumbing and Mechanical Officials (IAPMO), under the title "2021 Uniform Mechanical Code" and adopted as the "2022 California Mechanical Code," including the appendices and state of California amendments thereto, hereinafter called "mechanical code," is adopted as and for the rules, regulations and standards within this city as to all matters therein contained, except as otherwise provided in this chapter. The appendices to the mechanical code shall be enforceable to the same extent as if contained in the body of the code.
(Ord. 1033 § 12, (1975); Ord. 1128 § 28, (1978); Ord. 1208 § 18, (1981); Ord. 1285 § 28, (1984); Ord. 1381 § 18, (1988); Ord. 1462 § 2, (1992); Ord. 1538 § 1, (1996); Ord. 1613 § 7, (1999); Ord. 1694 § 6, (2002); Ord. 1813 § 7, (2007); Ord. 1856 § 6, (2010); Ord. 1889 § 7, (2013); Ord. 1933 § 7, (2016); Ord. 1969 § 9, (2019); Ord. 2010 § 7, (2022))

§ 18.09.020. Section 1101.1 amended—Appeals.

An appeal of a denial of or a refusal to issue a permit or from any other decision of the building official may be taken as set forth in Section 18.07.040.
(Ord. 1361 § 20, (1988); Ord. 1538 § 1, (1996); Ord. 1613 § 7, (1999))

CHAPTER 18.10
RESIDENTIAL CODE

§ 18.10.010. Adoption of 2022 California Residential Code.

The rules, regulations and standards printed in one volume and published by the International Code Council under the title "2021 International Residential Code" and the "2022 California Residential Code", including appendices AH, AJ, AK, AO, AQ, AS, AX, and AZ are adopted as and for the rules, regulations and standards within this city as to matters therein contained except as provided in this chapter. The mandatory requirements of any adopted appendices to the code shall be enforceable to the same extent as if contained in the body of the code.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.015. Section R111.4 added—Utility identification.

Section R111.4 of the 2022 California Residential Code is added to read as follows:

R111.4 Utility identification. In all residential buildings, gas and electric meters, service switches and shut off valves shall be clearly and legibly marked to identify the unit or space that they serve.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.020. Section R309.6 deleted—Fire sprinklers exception.

Section R309.6 Exception of the 2022 California Residential Code is deleted in its entirety.

R309.6 Fire sprinklers. The exception for fire sprinklers in garages and carports is deleted in its entirety.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.025. Section R313.1 amended—Townhouse automatic fire sprinkler systems.

Section R313.1 Exception of the 2022 California Residential Code is amended by replacing with the following paragraph:

R313.1 Townhouse automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in townhouses.

R.313.1.1 Existing Townhouse automatic fire sprinkler systems. An automatic residential fire sprinkler system is required when additions and/or alterations to existing townhouse buildings with a total building floor area more than 2,000 square feet or more than two stories in height, and when additions and/or alterations for which a building permit is required exceeds 750 square feet in area or 20% of the total square footage of the entire completed building.

Exception: Detached structures classified as an Accessory Dwelling Unit in accordance with Burlingame Municipal Code Chapter 25.59 when no work has occurred in the main house in a two-year period in excess of 750 square feet in area or 20% of the total square footage of the entire completed building as determined by Section R313.3.2.7.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019);

Ord. 2010 § 8, (2022))

§ 18.10.030. Section R313.2 amended—Oneand two-family dwellings automatic fire systems.

Section R313.2 Exception of the 2022 California Residential Code is amended by replacing with the following:

R313.2. Oneand two-family dwellings automatic fire systems. An automatic residential fire sprinkler system shall be installed in oneand two-family dwellings.

Exception: Detached structures located in excess of 10 feet from the main house.

R313.2.1 Existing Oneand two-family dwellings automatic fire systems.

1.	An automatic residential fire sprinkler system is required when additions and/or alterations to existing one- and two-family dwellings with a total building floor area more than 2,000 square feet or more than two stories in height, and when additions and/or alterations for which a building permit is required exceeds 750 square feet in area or 20% of the total square footage of the entire completed building, whichever is greater.
2.	Detached structures classified as an Accessory Dwelling Unit (ADU), shall be protected with an automatic fire sprinkler system throughout where the primary dwelling is provided with an automatic fire sprinkler system. If work occurs within either building within a two-year period, of completion of the ADU, and in excess of 750 square feet in area or 20% of the total square footage of the entire completed building, fire sprinklers shall be provided throughout both buildings.

Exception:

1. Detached structures located in excess of 10 feet from the main house.
2. Additions or alterations of commercial, multi-family residential, and one- or two-family residential building that do not exceed 20% of the total square footage of the entire completed building.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.035. Section R313.3.1.2 amended—Required sprinkler locations.

Section R313.3.1.2 of the 2022 California Residential Code is amended by replacing with the following:

R313.3.1.1 Required sprinkler locations.

1. Sprinklers shall be installed to protect all areas of a dwelling unit.

   Exceptions:

   a. Detached carports and garages less than 2,000 square feet in area and separated from residential buildings complying with Section R302.1.

2. Sprinkler coverage shall be provided in the following locations:

   a. Attic access openings

   b. Areas of attics and crawl spaces containing storage, mechanical and/or electrical equipment.

3. Inspector Test Valves shall be provided for each system and located the furthest point away from the sprinkler riser for buildings greater than 3,600 square feet.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.040. Section R313.3.2.7 added—Additions and alterations.

Section R313.3.2.7 of the 2022 California Residential Code is added to read as follows:

R313.3.2.7 Additions and Alterations.

1. The standard for determining the size of addition and/or alteration for determining the threshold for fire sprinkler systems shall be determined by the following:

   a. The square footage of every room being added and/or altered shall be included in the calculation of total square footage of addition and/or alteration.

   b. The entire square footage shall be considered added or altered when at least 50% or greater of interior wall sheeting or ceiling of any one wall within a room or area is new, removed, or replaced.

2. The size of additions and alterations used in calculating shall not be cumulative with regard to individual additions or alterations in a building unless the following circumstance applies:

   Where more than one addition or alteration for which building permits are required are made within a two year period from the final date of the initial permit, the sum of the size of these additions or alterations during this two year period shall be aggregated for the purpose of determining calculations in Section 18.10.025 or Section 18.10.030.

3. The following scopes of work are excluded from calculations to determine the area of alteration: building roof repair/replacement; fire damage repair; building heating and/or cooling unit repair/replacement; and any other federal, state and local construction code upgrade requirements including, but not limited to, the seismic retrofit requirements, asbestos, and other hazardous material abatement.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.045. Section R313.3.2.8 added—All sprinklered buildings.

Section R313.3.2.8 of the 2022 California Residential Code is added to read as follows:

R313.3.2.8 All sprinklered buildings.

1. When a building is partially retrofitted with an approved automatic sprinkler fire extinguishing system pursuant to this section, the building fire extinguishing system retrofit shall be completed throughout the unprotected building interior areas within two years from completing the initial partial retrofit.

2. When a property owner or responsible party of a residential building chooses option 1 above, the property owner shall file a deed restriction with San Mateo County Assessor's Office and obtain a performance bond with Central County Fire Department to ensure completion of the fire sprinkler installation. The bond shall be equal to or greater than the estimated cost of completion, as determined by Central County Fire Department.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.050. Section R313.3.3.1 amended—Nonmetallic pipe and tubing.

Section R313.3.3.1 of the 2022 California Residential Code is amended to read as follows:

R313.3.3.1 Nonmetallic pipe and tubing. Nonmetallic piping and tubing, such as CPVC, shall be listed for use in residential fire sprinkler systems.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.055. Table R313.3.6.2 (9) deleted—Table R313.3.6.2 (9) Allowable pipe length for 1-inch PEX tubing.

Table R313.3.6.2 (9) of the 2022 California Residential Code is deleted in its entirety.

Table R313.3.6.2 (9) Allowable Pipe Length for 1-inch PEX tubing is deleted.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.060. Section R313.3.6.2.2 amended—Calculation procedure. Step 8—Determine the maximum allowable pipe length.

Section R313.3.6.2.2 – Calculation procedure. Step 8 of the 2022 California Residential Code is replaced with the following:

R313.3.6.2.2 – Calculation procedure. Step 8 – Determine the maximum allowable pipe length. Use Tables R313.3.6.2 (4) through R313.3.6.2 (8) to select a material and size for water distribution piping. The piping material and size shall be acceptable if the *developed length* of pipe between the service valve and the most remote sprinkler does not exceed the maximum allowable length specified by the applicable table. Interpolation of Pt between the tabular values shall be permitted.

The maximum allowable length of piping in Tables R313.3.6.2(4) through R313.3.6.2(8) incorporates an adjustment for pipe fittings, and no additional consideration of friction losses associated with pipe fittings shall be required.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.065. Section R313.3.8.1 amended—Pre-concealment inspection #4.

Section R313.3.8.1 – Pre-concealment inspection #4 of the 2022 California Residential Code is amended by replacing with the following:

R313.3.8.1 #4. The pipe size equals or exceeds the size used in applying Tables R313.3.6.2(4) through R313.3.6.2(8) or, if the piping system was hydraulically calculated in accordance with Section R313.3.6.1, the size used in the hydraulic calculation.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.070. Section R313.3.8.1 amended—Pre-concealment inspection #5.

Section R313.3.8.1 – Pre-concealment inspection #5 of the 2022 California Residential Code is amended by replacing with the following:

R313.3.8.1 #5. The pipe length does not exceed the length permitted by Tables R313.3.6.2(4) through R313.3.6.2(8) or, if the piping system was hydraulically calculated in accordance with Section R313.3.6.1, pipe lengths and fittings do not exceed those used in the hydraulic calculation.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.075. Section R319.1 amended—Address numbers.

Section R319.1 of the 2019 California Residential Code is amended to read as follows:

R319.1 Address numbers. Size of numbers shall be as follows:

1.	When the structure is 36 to 50 feet from the street or fire apparatus access, a minimum of one-half inch (½″) stroke by six inches (6″) high is required.
2.	When the structure is more than 50 feet from the street or fire apparatus access, a minimum of one inch (1″) strike by nine inches (9″) high is required.

Multi-tenant buildings. Numbers or letters shall be designated on all occupancies within a building. Size shall be a minimum of one-half inch (1/2″) stroke by four inches (4″) high and on a contrasting background. Directional address numbers or letters shall be provided. Said addresses or numbers shall be posted at a height no greater than 5 feet, 6 inches (5′ 6″) above the finished floor and shall be either internally or externally illuminated in all new construction.

Rear addressing. When required by the chief, approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the fire apparatus road at the back of a property or where rear parking lots or alleys provide an acceptable vehicular access. Number stroke and size shall comply with Section R319.1.

ADU Addressing. Address for Residential Accessory Dwelling Units shall meet City of Burlingame specifications.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.080. Section R902.1 amended—Roof covering materials.

Section R902.1 of the 2022 California Residential Code is amended to read as follows:

R902.1 Roof covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class A or B roofing shall be installed in areas designated by this section. Class C roofs shall not be allowed in the City of Burlingame. Classes A and B roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.085. Section R902.1.3 amended—Roof covering in all other areas.

Section R902.1.3 of the 2022 California Residential Code is amended to read as follows:

R902.1.3 Roof covering in all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.
(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.090. Section R903.4.2 added—Roof and surface drainage.

Section R903.4.2 of the 2022 California Residential Code is added to read as follows:

R903.4.2 Roof and surface drainage.

1. In all zones other than R-1, the water from the roof of any building and from any paved area which would flow by gravity over public sidewalk shall be carried by means of conductors under the sidewalk and through the curb to the gutter, or other approved location.

2. No storm water or underground water draining from any lot, building, or paved area shall be allowed to drain to adjacent properties nor shall this water be connected to the city's sanitary sewer system. Regardless of the slope of the source property, such water shall drain to either artificial or natural storm drainage facilities by gravity or pumping.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

§ 18.10.095. Section R1003.9.2.1 added—Spark arrestors.

Section R1003.9.2.1 of the 2022 California Residential Code is added to read as follows:

R1003.9.2.1 Spark arrestors. Every chimney shall have a spark arrestor, either internally or externally mounted. Any spark arrestor to be mounted internally shall not be installed

until installation plans for such arrestor have been submitted to and approved by the building division. All chimneys as described in Section 605.2.1 of the 2022 California Fire Code shall be retroactively protected when one or more of the following conditions exist:

1. Upon the sale or transfer of the real property on which any chimney is located the transfer of title shall not be made until each such chimney contains the required spark arrestor, properly installed and in proper working order.

2. In the event of any construction on such property for which a building permit is required the final building permit signoff shall not be made until each such chimney a spark arrestor has been installed and is in proper working order.

(Ord. 1856 § 7, (2010); Ord. 1889 § 8, (2013); Ord. 1933 § 8, (2016); Ord. 1969 § 10, (2019); Ord. 2010 § 8, (2022))

CHAPTER 18.11
DANGEROUS BUILDINGS CODE

§ 18.11.010. Adoption of Uniform Code for the Abatement of Dangerous Buildings.

The rules, regulations and standards printed in one volume and published by the International Conference of Building Officials under the title "1997 Uniform Code for the Abatement of Dangerous Buildings," hereinafter called "dangerous buildings code," is adopted as and for the rules, regulations and standards within this city as to all matters therein contained, except as otherwise provided in this chapter.
(Ord. 1033 § 14, (1975); Ord. 1128 § 30, (1978); Ord. 1208 § 20, (1981); Ord. 1285 § 30, (1984); Ord. 1361 § 21, (1988); Ord. 1462 § 2, (1992); Ord. 1538 § 1, (1996); Ord. 1613 § 8, (1999))

§ 18.11.020. Chapter 6 amended—Appeals.

An appeal of a denial of or a refusal to issue a permit or from any other decision of the building official may be taken as set forth in Section 18.07.040.
(Ord. 1033 § 14, (1975); Ord. 1538 § 1, (1996); Ord. 1613 § 8, (1999))

CHAPTER 18.12
PLUMBING CODE

Note: Prior ordinance history: Ords. 1033, 1128, 1208, 1285, 1538, 1613, 1684, 1710 and 1813.

§ 18.12.010. Adoption of 2022 California Plumbing Code.

The rules, regulations and standards printed in one volume and published by the International Association of Plumbing and Mechanical Officials (IAPMO), under the title "2021 Uniform Plumbing Code" and adopted as the "2022 California Plumbing Code" including the Appendices A, D, H, I and state of California amendments thereto, hereinafter called "plumbing code," is adopted as and for the rules, regulations and standards within this city as to all matters therein contained, except as otherwise provided in this chapter. The appendices specified herein shall be enforceable to the same extent as if contained in the body of the plumbing code.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.020. Section 310.13 added—Exterior pipes.

Section 310.13 of the 2022 California Plumbing Code is added to read as follows:

310.13 Exterior pipes. No plumbing drain vent pipe nor water, soil, waste, or gas pipe shall be installed on, or attached to, the outside face of an exterior wall of a residential building without the prior written permission of the building official. Such installation shall be enclosed in such a way as to be obscured from view.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.030. Section 507.5 amended—Water heater safety pans.

Section 507.5 of the 2022 California Plumbing Code is amended to read as follows:

507.5 Water heater safety pans. Each water heater located in an attic, furred space, living area or other location where leakage would result in damage to the building or its contents shall have a safety pan with drain. Safety pans shall be metal and be nominal two inches in diameter larger than the water heater, with a minimum depth of two inches. The drain pipe shall be three-quarter inch trade size minimum; shall terminate outside the building foundation or, where this is not practical or possible, at another location approved by the building inspector; and shall have a continuous minimum slope throughout its length of one-quarter inch, per foot away from the water heater.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.040. Section 606.3.1 added—Water supply shutoff valves.

Section 606.3.1 of the 2022 California Plumbing Code is added to read as follows:

606.3.1 Water supply shutoff valves. A gate shutoff valve shall be installed on each water supply pipe at an accessible point where such supply enters a building. In multi-unit residential

buildings, a gate shutoff valve shall be installed on each water supply pipe at an accessible point where such supply enters each apartment or dwelling unit; or, where an apartment or dwelling unit is supplied by a vertical riser, a separate accessible shutoff valve may be provided at each plumbing fixture in the unit in lieu of the shutoff valve on the main supply to the unit.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.050. Section 609.3 amended—Water piping installed in or under a concrete slab.

The first paragraph of Section 609.3 of the 2022 California Plumbing Code is amended to read as follows:

609.3 Water piping installed in or under a concrete slab. Water piping shall not be installed in or under a concrete floor slab within a building without prior written approval of the building official. When such approval is obtained, such piping shall be installed in accordance with requirements (1) and (2).
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.060. Section 610.8.1 added—Water service over two inches.

Section 610.8.1 of the 2022 California Plumbing Code is added to read as follows:

610.8.1 Water services over two inches. Design details, methods and materials for construction of water services over 2 inches in diameter shall conform with the specifications for the construction of such work as compiled by the city engineer. These specifications may be changed from time to time at the option of the city engineer, but such changes shall in no way effect the validity of the regulations or requirements contained therein or the regulations and requirements of this code.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.070. Section 710.1 amended—Drainage of fixtures below the next upstream manhole or below the main sewer level.

Section 710.1 of the 2022 California Plumbing Code is amended to read as follows:

710.1 Drainage of fixtures below the next upstream manhole or below the main sewer level.

1. Drainage piping serving fixture(s) which have flood level rim(s) less than twelve inches (12″) above the elevation of the next upstream manhole and/or flushing inlet cover at the public sewer system serving such drainage piping shall be protected from backflow of sewage as follows:

    a. In new buildings and in buildings modified to the extent described in Burlingame Municipal Code section 18.07.020, these fixtures shall discharge by means of a sewage ejector or pump in accordance with Section 710.2.

    b. In existing buildings, protection from backflow shall be by means of a backwater valve approved by the building official supplemented by an approved sewer relief valve installed with its outlet at least six inches (6″) below the flood level rim of the lowest installed drainage unit fixture. Fixtures above that elevation shall not discharge

through the backwater valve without prior written approval of the building official. As an alternative, the system may be protected by installation of an approved sewage ejector or pump.

c. Cleanouts for drains that pass through a backwater valve shall be clearly identified with a permanent label stating "Backwater Valve Downstream."

(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.080. Section 719.7 added—Building sewer cleanout.

Section 719.7 of the 2022 California Plumbing Code is amended by adding a second paragraph to read as follows:

719.7 Building sewer cleanout. When a building sewer is located under a street, alley or easement, there shall be provided a cleanout, installed flush with the sidewalk level next to curb; or, if no curb or sidewalk exist, then the cleanout must be located outside of the lot line. The cleanout riser shall be of materials specified by the city engineer, shall be the same size as the drain it serves, shall be connected to the building drain by a wye, shall be brought up to the level of the ground, and shall be terminated at the top with a cleanout fitting as specified by the city engineer. If the riser terminates at concrete sidewalk a cast iron sidewalk box with loose cover fitting with brass screws shall be installed. The minimum size for a cleanout riser shall be four inch trade size pipe.

(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.090. Section 807.4 added—Condensate waste water disposal.

Section 807.4 of the 2022 California Plumbing Code is added to read as follows:

807.4 Condensate wastewater disposal. Condensate from air cooling coils and comfort cooling equipment not intended to be used for the storage or handling of food or drink shall be collected and discharged to a storm sewer or other point of disposal approved by the building official.

Termination of such drains shall be made by an air break. Condensate drain lines in sizes of one and one-quarter inch and larger shall be assembled using approved drainage pipe and fittings.

Condensate waste water shall not drain over or upon a sidewalk, pedestrian ramp or the like, or a public way.

(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.100. Section 812.2 added—Disposal of rainwater drainage.

Section 812.2 of the 2022 California Plumbing Code is added to read as follows:

812.2 Disposal of rainwater drainage. Rainwater from roof or other approved areas exposed to rainwater may be drained into the storm drainage system, but shall not drain into any sewer intended for sanitary sewage.

(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.110. Section 812.3 added—Rainwater drainage to paved gutter.

Section 812.3 of the 2022 California Plumbing Code is added to read as follows:

812.3 Rainwater drainage to paved gutter. Rainwater from roofs and other approved areas exposed to rainwater may drain into a public street gutter, provided that such gutter is paved and runs to a catch basin connected to a public storm drain, and provided further that such drainage has the approval of the city engineer or other public authority having jurisdiction over public streets or public storm drains.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.120. Section 812.4 added—Rainwater drainage across public sidewalk prohibited.

Section 812.4 of the 2022 California Plumbing Code is added to read as follows:

812.4 Rainwater drainage across public sidewalk prohibited. No rainwater from roofs, or other rainwater drainage of premises, shall discharge upon a public sidewalk. When it is desired to conduct rainwater from a building or premises to a public street gutter, the outside underground drainage piping shall be vitrified clay pipe, ABS, PVC, galvanized wrought iron pipe, galvanized steel pipe, approved concrete pipe, asbestos cement sewer pipe, cast iron pipe or other materials approved by the building official. When clay pipe, ABS, PVC, asbestos cement sewer pipe or approved concrete pipe is used, such pipe shall be a minimum of two feet horizontally from the building and one foot below the official grade. Water leaders connected to such background drainage pipe which are on the outside of the building wall that abuts on a public thoroughfare, shall be constructed of galvanized wrought iron pipe, galvanized steel pipe, or cast iron pipe for a distance of not less than five feet vertically above the Official grade. See Section 18.08.090 for exception for such drainage in R-1 districts.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

§ 18.12.130. Section 812.5 added—Elimination of nonconforming rainwater drainage required.

Section 812.5 of the 2022 California Plumbing Code is added to read as follows:

812.5 Elimination of nonconforming rainwater drainage required. Every existing system that allows the drainage of rainwater into a sanitary sewer in violation of the provisions of this chapter shall be altered or terminated or replaced so as to conform to the provisions of this chapter.
(Ord. 1856 § 8, (2010); Ord. 1889 § 9, (2013); Ord. 1933 § 9, (2016); Ord. 1969 § 11, (2019); Ord. 2010 § 9, (2022))

CHAPTER 18.13
EXISTING BUILDING CODE

§ 18.13.010. Adoption of 2022 California Existing Building Code.

The rules, regulations and requirements published by the International Code Council (ICC) under the title "2021 International Existing Building Code" and adopted as the "2022 California Existing Building Code" including Appendix Chapter A and state of California amendments thereto, are adopted as and for the rules, regulations and standards within this city as to all matters therein contained.
(Ord. 1969 § 12, (2019); Ord. 2010 § 10, (2022))

§ 18.13.020. Section 501.6 added—Suspended ceiling upgrade required.

Section 501.6 of the 2022 California Existing Building Code is added to read as follows:

501.6 Suspended ceiling upgrade required. When an addition, alteration or repair is performed on an occupancy in which there is an existing suspended ceiling, such suspended ceilings shall be modified throughout to comply with the provisions of ASTM C 635 and ASTM C 636.
(Ord. 2010 § 10, (2022))

CHAPTER 18.16
ELECTRICAL CODE

§ 18.16.010. Adoption of 2022 California Electrical Code.

The rules, regulations and standards printed in one volume and published by the National Fire Protection Association (NFPA), under the title "2020 National Electrical Code" with amendments as contained in the "2022 California Electrical Code," including the appendices, are adopted as and for the rules, regulations and standards within this city as to matters therein contained except as provided in this chapter. The mandatory requirements of the appendices to the code shall be enforceable to the same extent as if contained in the body of the code.
(1941 Code § 2300.01, Ord. 815, (1964); Ord. 926 § 1, (1970); Ord. 1128 § 33, (1978); Ord. 1208 § 28, (1981); Ord. 1285 § 34, (1984); Ord. 1361 § 33, (1988); Ord. 1462 § 2, (1992); Ord. 1613 § 10, (1999); Ord. 1694 § 8, (2002); Ord. 1813 § 9, (2007); Ord. 1856 § 9, (2010); Ord. 1889 § 10, (2013); Ord. 1933 § 10, (2016); Ord. 1969 § 13, (2019); Ord. 2010 § 11, (2022))

§ 18.16.020. Section 230.70(A)(1) amended—Main switch accessible from exterior.

Section 230.70(A)(1) of the 2022 California Electrical Code is amended to read as follows:

230.70(A)(1) Main switch accessible from exterior. The service disconnecting means location shall be accessible from the exterior of a building. If, due to structural or architectural conditions, it is not possible to make the service disconnecting means accessible from the building exterior a shunt trip disconnecting all active electrical conductors shall be installed at an accessible exterior location.
(Ord. 1613 § 10, (1999); Ord. 1694 § 8, (2002); Ord. 1813 § 9, (2007); Ord. 1856 § 9, (2010); Ord. 1889 § 10, (2013); Ord. 1933 § 10, (2016); Ord. 1969 § 13, (2019); Ord. 2010 § 11, (2022))

§ 18.16.030. Section 410.10(G) added—Exterior lighting restricted.

Section 410.10(G) of the 2022 California Electrical Code is added to read as follows:

410.10(G) Exterior lighting restricted.

1. Exterior lighting on all residential and commercial properties shall be designed and located so that the cone of light and/or glare from the lighting element is kept entirely on the property or below the top of any fence, edge or wall.

2. On all residential properties exterior lighting outlets and fixtures shall not be located more than nine feet above adjacent grade or required landing; walls or portions of walls shall not be floodlit; only shielded light fixtures which focus light downward shall be allowed, except for illuminated street numbers required by the fire department.

3. Variances to the provisions of this section may be approved by the planning commission, pursuant to the provisions of Chapter 25.16 of this code, except that notice of the application for the variance shall only be given to property owners within fifty feet.

4. This section shall not apply to signs having an approved permit for an illuminated sign pursuant to Title 22 of this code.

(Ord. 1613 § 10, (1999); Ord. 1694 § 8, (2002); Ord. 1813 § 9, (2007); Ord. 1856 § 9, (2010); Ord. 1889 § 10, (2013); Ord. 1933 § 10, (2016); Ord. 1969 § 13, (2019); Ord. 2010 § 11,

(2022))

CHAPTER 18.17
WATER CONSERVATION IN LANDSCAPE

§ 18.17.010. Title.

This chapter shall be known as the city of Burlingame "Water Conservation in Landscape Ordinance."
(Ord. 1845 § 3, (2010))

§ 18.17.020. Applicability.

(a) The provisions of this chapter shall apply to all of the following landscape projects:

(1) Tier 1 Landscapes. All new construction and rehabilitated landscapes with irrigated landscape areas between 1,500 square feet and 2,500 square feet requiring a building or landscape permit, plan check or design review, or requiring new or expanded water service.

(2) Tier 2 Landscapes. All new construction and rehabilitated landscapes with irrigated landscape areas equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review or requiring new or expanded water service.

(3) Existing landscapes, including existing cemeteries, shall only be subject to the provisions for existing landscapes provided for in Section 18.17.130, Provisions for existing landscapes over one acre in size; and

(4) New and rehabilitated cemeteries shall only be subject to the provisions of Section 18.17.080, Water budget calculations, Section 18.17.100, Landscape audit report, and Section 18.17.110, Landscape and irrigation maintenance schedule.

(b) The provisions of this chapter shall not apply to:

(1) New construction and rehabilitated landscapes with irrigated landscape areas less than 1,500 square feet or that do not require a building or landscape permit, plan check or design review, or new or expanded water service;

(2) Landscapes or portions of landscapes that are only irrigated for an establishment period;

(3) Registered local, state or federal historical sites where landscaping establishes a historical landscape style, as determined by a public board or commission responsible for architectural review or historic preservation;

(4) Ecological restoration or mined-land reclamation projects that do not require a permanent irrigation system; or

(5) Community gardens or plant collections, as part of botanical gardens and arboretums open to the public, agricultural uses, commercial nurseries and sod farms.
(Ord. 1845 § 3, (2010))

§ 18.17.030. Definitions.

"Applied water" means the portion of water supplied by the irrigation system to the landscape.

"Automatic irrigation controller" means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

"Backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

"Certified irrigation designer" means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the U.S. Environmental Protection Agency's WaterSense Irrigation Designer Certification Program and Irrigation Association's Certified Irrigation Designer Program.

"Certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the U.S. Environmental Protection Agency's WaterSense Irrigation Auditor Certification Program and Irrigation Association's Certified Landscape Irrigation Auditor Program.

"Certified professional" or "authorized professional" means a certified irrigation designer, a certified landscape irrigation auditor, a licensed landscape architect, a licensed landscape contractor, a licensed professional engineer, or any other person authorized by the state to design a landscape, an irrigation system, or authorized to complete a water budget.

"Conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year.

"Drip irrigation" means any nonspray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

"Effective precipitation" or "usable rainfall" (Eppt) means the portion of total precipitation which becomes available for plant growth.

"Establishment period" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.

"Estimated total water use (ETWU)" means the total water used for the landscape as described in Section 18.17.080, Water budget calculations.

"ET adjustment factor (ETAF)" means a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. ETAF for a special landscape area shall not exceed 1.0. ETAF for existing nonrehabilitated landscapes shall not exceed 0.8.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

"Flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

"Hardscapes" means any durable material (pervious and nonpervious).

"Hydrozone" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or nonirrigated.

"Invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. "Noxious weeds" means any weed designated by the Weed Control Regulations in the Weed Control Act and identified on a regional district noxious weed control list. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

"Irrigation audit" means an in-depth evaluation of the performance of an irrigation system. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

"Irrigation efficiency (IE)" means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average irrigation efficiency for purposes of this chapter is 70%. Greater irrigation efficiency can be expected from well-designed and maintained systems.

"Irrigation survey" means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.

"Irrigation water use analysis" means an analysis of water use data based on meter readings and billing data.

"Landscape architect" means a person who holds a license to practice landscape architecture in California as further defined by the California Business and Professions Code, Section 5615.

"Landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the maximum applied water allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or nonpervious hardscapes, other nonirrigated areas designated for nondevelopment (e.g., open spaces and existing native vegetation), agricultural uses, commercial nurseries and sod farms.

"Landscape contractor" means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

"Landscape project" means the total area comprising the landscape area, as defined in subsection (x).

"Lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

"Local agency" means the city of Burlingame which is responsible for the adoption, implementation and enforcement of this chapter, including, but not limited to, approval of a permit and plan check or design review of a project.

"Local water purveyor" means any entity, including a public agency, city, county, district or private water company that provides retail water service.

"Low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers.

"Low water use plant" means a plant species whose water needs are compatible with local

climate and soil conditions. Species classified as "very low water use" and "low water use" by WUCOLS, having a regionally adjusted plant factor of 0.0 through 0.3, shall be considered low water use plants.

"Maximum applied water allowance (MAWA)" means the upper limit of annual applied water for the established landscaped area as specified in Section 18.17.080, Water budget calculations.

"Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

"Mulch" means any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

"Native plant" means a plant indigenous to a specific area of consideration. For the purposes of these guidelines, the term shall refer to plants indigenous to the coastal ranges of central and northern California, and more specifically to such plants that are suited to the ecology of the present or historic natural community(ies) of the project's vicinity.

"New construction" means the construction of a new building or structure containing a landscape or other new land improvement, such as a park, playground, or greenbelt without an associated building.

"No water-using plant" means a plant species with water needs that are compatible with local climate and soil conditions such that regular supplemental irrigation is not required to sustain the plant after it has become established.

"Operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

"Overhead sprinkler irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).

"Overspray" means the irrigation water which is delivered beyond the target area.

"Permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

"Plant factor" or "plant water use factor" is a factor, when multiplied by ETo, estimates the amount of water needed by plants.

"Precipitation rate" means the rate of application of water measured in inches per hour.

"Project applicant" means the individual or entity submitting a project landscape application required under Section 18.17.060, to request a permit, plan check, or design review from the city. A project applicant may be the property owner or designee.

"Rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.

"Recreational area" means areas dedicated to active play such as parks, sports fields, and golf courses where turf provides a playing surface.

"Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants.

"Rehabilitated landscape" means any relandscaping project that requires a permit, plan check, design review, or requires a new or expanded water service application.

"Runoff" means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area.

"Soil moisture sensing device" or "soil moisture sensor" means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

"Special landscape area (SLA)" means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

"Sprinkler head" means a device which delivers water through a nozzle.

"Station" means an area served by one valve or by a set of valves that operate simultaneously.

"Turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.

"Valve" means a device used to control the flow of water in the irrigation system.

"Water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied).

"WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000.
(Ord. 1845 § 3, (2010))

§ 18.17.040. Water conservation in landscaping requirements.

(a) All owners of new construction and rehabilitated landscapes of applicable sizes shall:

(1) Complete the Landscape Project Application (Section 18.17.060); and

(2) Comply with the landscape and irrigation maintenance schedule (Section 18.17.110) requirements of this chapter.

(b) All owners of existing landscapes over one acre in size, even if installed before enactment of the ordinance codified in this chapter, shall:

(1) Comply with city programs that may be instituted relating to irrigation audits, surveys and water use analysis; and

(2) Shall maintain landscape irrigation facilities to prevent water waste and runoff.
(Ord. 1845 § 3, (2010))

§ 18.17.050. Compliance with provisions.

(a) The city shall:

(1) Provide the project applicant with the ordinance codified in this chapter and landscape project application requirements and the procedures for permits, plan checks, design

reviews, or new or expanded water service;

(2) Review the landscape project application submitted by the project applicant;

(3) Approve or deny the project applicant's landscape project application submittal;

(4) Issue or approve a permit, plan check or design review that complies with the approved landscape project application or approve a new or expanded water service application that complies with the approved landscape project application.

(b) The project applicant shall:

(1) Prior to construction, submit all portions of the landscape project application, except the landscape audit report, to the city;

(2) Construct the project in compliance with the minimum water use efficiency standards for indoor fixtures and appliances provided for in the Indoor Water Use Efficiency Table and checklist;

(3) After construction, submit the landscape audit report portion of the landscape project application to the city.

(Ord. 1845 § 3, (2010))

§ 18.17.060. Landscape project application.

(a) The elements of a landscape must be designed to achieve water efficiency and will comply with the criteria described in this chapter. In completing the landscape project application, project applicants may choose one of two options to demonstrate that the landscape meets this chapter's water efficiency goals. Regardless of which option is selected, the applicant must complete and comply with all other elements of this chapter. The options include:

(1) Planting Restrictions.

(A) The turf area may not be more than 25% of the landscape area, and

(B) At least 80% of the plants in non-turf landscape areas shall be native plants, low-water using plants, or nowater using plants; or the

(2) Water budget calculation option (Section 18.17.080).

(b) The landscape project application shall include the following elements:

(1) Project information;

(2) Outdoor water use efficiency checklist (Section 18.17.070);

(3) Water budget calculations, if applicant selects to use a water budget approach rather than comply with the turf area limitations or specified plant type restrictions (Section 18.17.080);

(4) Landscape and irrigation system design plans (Section 18.17.090);

(5) Landscape audit report (Section 18.17.100).

(Ord. 1845 § 3, (2010))

§ 18.17.070. Outdoor water use efficiency checklist.

The city of Burlingame has developed an outdoor water use efficiency checklist (checklist), based on the criteria described below. For Tier 1 projects, either the project applicant or a certified or authorized professional shall complete the checklist and submit it to city along with the landscape and irrigation design plan. For Tier 2 projects, a certified or authorized professional shall complete and submit the checklist to city along with the landscape and irrigation design plan.

(a) Plant Material.

(1) Each hydrozone shall have plant materials with similar water use that are selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.

(2) The turf area shall not be more than 25% of the landscape area, unless the project applicant develops a sitespecific water budget and the ETWU of the landscape area does not exceed the MAWA.

(3) Turf shall not be planted on slopes greater than 25% or in areas that are less than eight feet wide, unless irrigated with subsurface irrigation or a low volume irrigation system.

(4) At least 80% of the plants in nonturf landscape areas shall be native plants, low-water using plants, or no waterusing plants, unless the project applicant develops a site-specific water budget and the ETWU of the landscaped area does not exceed the MAWA.

(5) Fire-prone plant materials and highly flammable mulches should be avoided.

(6) The use of invasive and/or noxious plant species is strongly discouraged.

(7) The architectural guidelines of a common interest development shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

(b) Mulch. A minimum two inch layer of mulch shall be applied on all exposed soil surfaces of planting areas, although a three inch layer is recommended.

(c) Irrigation System. An irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance.

(1) Dedicated landscape water meters shall be required for landscape areas greater than 5,000 square feet and are highly recommended for landscape areas greater than 2,500 square feet.

(2) Tier 2 landscapes are required to have automatic irrigation controllers that utilize either evapotranspiration or soil moisture sensor data for irrigation scheduling.

(3) Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems.

(4) The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.

(5) Low volume irrigation required in mulched areas, in areas with slope greater than 25%, and within 24 inches of a nonpermeable surface, or in narrow or irregularly shaped areas that are less than eight feet in width in any direction.

(6) Average irrigation efficiency is assumed to be 70%. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average landscape irrigation efficiency of 70%.

(7) Irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m., unless unfavorable weather prevents it or otherwise renders irrigation unnecessary.

(d) Hydrozone.

(1) Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

(2) Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.

(3) Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf.

(4) Individual hydrozones that mix plants with different water uses may be allowed if a water budget is performed, and the plant factor calculation is based on the proportion of the respective plant water uses or the plant factor of the higher water using plant is used.

(e) Water Features.

(1) Recirculating water systems will be used for water features.

(2) The surface area of a water feature will not exceed 10% of the landscape area and will be counted as a high water-using plant for purposes of a water budget calculation.

(3) Pool and spa covers are highly recommended.

(f) Soil Amendments. Soil amendments, such as compost, shall be incorporated according to the soil conditions at the project site and based on what is appropriate for the selected plants.

(Ord. 1845 § 3, (2010))

§ 18.17.080. Water budget calculations.

The project applicant may elect to complete a water budget calculation for the landscape project. A Tier 1 water budget may be developed and completed by the project applicant. A Tier 2 water budget calculation must be completed by a certified or authorized professional. Water budget calculations, if prepared, shall adhere to the following requirements:

(a) The plant factor used shall be from WUCOLS. The plant factor ranges from 0.0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water-use plants.

(b) All water features shall be included in the high water use hydrozone.

(c) All special landscape areas (SLA) shall be identified and their water use included in the water budget calculations.

(d) The reference evapotranspiration adjustment factor (ETAF) for SLA shall not exceed 1.0. The ETAF for all other landscaped areas shall not exceed 0.7.

(e) Irrigation system efficiency shall be greater than or equal to 70%.

(f) Maximum applied water allowance (MAWA) shall be calculated using the equation below:

MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]

Where:

MAWA	=	Maximum applied water allowance (gallons per year)
Eto	=	Reference evapotranspiration (inches per year)
0.62	=	Conversion factor (to gallons)
0.7	=	Reference evapotranspiration adjustment factor (ETAF)
LA	=	Landscape area including SLA (square feet)
0.3	=	Additional water allowance for SLA
SLA	=	Special landscape area (square feet)

(g) A local agency or project applicant may consider effective precipitation (25% of annual precipitation) in tracking water use and may use the following equation to calculate the MAWA:

MAWA = (ETo - Eppt) (0.62) [(0.7 x LA) + (0.3 x SLA)]

(h) Estimated total water use (ETWU) will be calculated using the equation below. The sum of the ETWU calculated for all hydrozones will not exceed the MAWA.

ETWU = (ETo)(0.62) [(PF x HA)\IE] + SLA

Where:

ETWU	=	Estimated total water use per year (gallons)

ETo	=	Reference evapotranspiration (inches)
PF	=	Plant factor from WUCOLS (see Section 491)
HA	=	Hydrozone area [high, medium, and low water use areas] (square feet)
SLA	=	Special landscape area (square feet)
0.62	=	Conversion factor
IE	=	Irrigation efficiency (minimum 0.70)

(Ord. 1845 § 3, (2010))

§ 18.17.090. Landscape and irrigation design plans.

(a) Tier 1 Landscapes. The landscape and irrigation design plan may be prepared by, and bear the signature of, the project applicant, or that of a certified or authorized professional.

(b) Tier 2 Landscapes. The components of the landscape and irrigation design plan shall be prepared as follows:

(1) The landscape design portion shall be prepared by, and bear the signature of, a licensed landscape architect, licensed landscape contractor, or that of a certified or authorized professional; and

(2) The irrigation design portion shall be prepared by, and bear the signature of, a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or that of a certified or authorized professional.

(c) The landscape design portion of the landscape and irrigation design plan, at a minimum, shall:

(1) Delineate and label each hydrozone;

(2) Identify each hydrozone as low, moderate, high water, or mixed water use;

(3) Identify special landscape areas (i.e., recreational areas; areas permanently and solely dedicated to edible plants; areas irrigated with recycled water);

(4) Identify type of mulch and application depth;

(5) Identify type and surface area of water features;

(6) Identify hardscapes (pervious and nonpervious); and

(7) Contain the following statement: "I have complied with the criteria of the Water Conservation in Landscaping Ordinance and applied them for the efficient use of water in the Landscape and Irrigation Design Plan."

(d) The irrigation design portion of the landscape and irrigation design plan, at a minimum, shall contain:

(1) Location and size of separate water meters for landscape;

(2) Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;

(3) Static water pressure at the point of connection to the public water supply;

(4) Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;

(5) Irrigation schedule;

(6) The following statement: "I have complied with the criteria of the Water Conservation in Landscaping Ordinance and applied them accordingly for the efficient use of water in the Landscape and Irrigation Design Plan."

(e) Grading. If the landscape project will be graded, then the grading shall be designed to minimize soil erosion, runoff, and water waste. All grading should be conducted to:

(1) Maintain all irrigation and normal rainfall within property lines and avoid drainage on to nonpermeable hardscapes;

(2) Avoid disruption of natural drainage patterns and undisturbed soil;

(3) Avoid soil compaction in landscape areas; and

(4) Be consistent with city and county grading requirements.

(Ord. 1845 § 3, (2010))

§ 18.17.100. Landscape audit report.

(a) Tier 1 Landscapes. Landscape irrigation audits for new or rehabilitated landscapes installed after March 18, 2010 shall be conducted after the landscaping and irrigation systems have been installed. The audit may be conducted by the project applicant or by a certified landscape irrigation auditor.

(b) Tier 2 Landscapes. Landscape irrigation audits for new or rehabilitated landscapes installed after the enactment of the ordinance codified in this chapter shall be conducted by a certified landscape irrigation auditor after the landscaping and irrigation system have been installed.

(c) The landscape audit report shall include, but is not limited to: inspection to confirm that the landscaping and irrigation system were installed as specified in the landscape and irrigation design plan, system tune-up, system test with distribution uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

(d) The landscape audit report shall include the following statement: "The landscape and irrigation system has been installed as specified in the Landscape and Irrigation Design Plan and complies with the criteria of the Ordinance and the permit."

(e) The city shall administer on-going programs that may include, but not be limited to, post-installation landscape inspection, irrigation water use analysis, irrigation audits, irrigation surveys and water budget calculations to evaluate compliance with the MAWA.

(Ord. 1845 § 3, (2010))

§ 18.17.110. Landscape and irrigation maintenance schedule.

Landscapes shall be maintained to ensure water use efficiency.

(a) A regular maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; weeding in all landscape areas; and removing obstructions to emission devices.

(b) Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.

(c) A project applicant is encouraged to implement sustainable or environmentally-friendly practices for overall landscape maintenance.

(Ord. 1845 § 3, (2010))

§ 18.17.120. Stormwater management.

Stormwater best management practices shall be implemented into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration and should be consistent with city, county, state and federal stormwater management requirements.

(Ord. 1845 § 3, (2010))

§ 18.17.130. Provisions for existing landscapes over one acre in size.

This section shall apply to all existing landscapes that were installed before March 18, 2010 and are over one acre in size.

(a) Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis.

(1) For landscapes that have a water meter, the city shall administer programs that may include, but not be limited to, irrigation water use analyses, irrigation surveys, and irrigation audits to evaluate water use and provide recommendations as necessary to reduce landscape water use to a level that does not exceed the MAWA for existing landscapes. The MAWA for existing landscapes shall be calculated as:

$$MAWA = (0.8)\ (ETo)(LA)(0.62)$$

(2) For landscapes that do not have a meter, the city shall administer programs that may include, but not be limited to, irrigation surveys and irrigation audits to evaluate water use and provide recommendations as necessary in order to prevent water waste.

(3) All landscape irrigation audits for existing landscapes that are greater than one acre in size shall be conducted by a certified landscape irrigation auditor.

(b) Water Waste Prevention. The city shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff from leaving the target landscape due to low head

drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways, parking lots, or structures.

(Ord. 1845 § 3, (2010))

§ 18.17.140. Violations, penalties and enforcement.

(a) Violation Notice of Correction. It is unlawful for any person, firm, partnership, association, or corporation subject to the requirements of this chapter to fail to comply with the outdoor water use efficiency requirements of this chapter.

(b) Notice of Correction. Whenever the city determines that a violation of this chapter has occurred, the city may serve a notice of correction on the owner(s) of the property on which the violation is situated. The owner(s) of record shall have 90 days to take corrective action.

(c) Enforcement. If the owner of the property which is the subject of the violation fails to take corrective action within 90 days, the city may enforce this chapter according to the provisions of Chapter 1.12 of this code.

(Ord. 1845 § 3, (2010))

§ 18.17.150. Public education.

(a) The city shall provide information to all applicants regarding the design, installation, management, and maintenance of water-efficient landscapes and irrigation systems.

(b) All model homes that are landscaped shall use signs and written information to demonstrate the principles of water-efficient landscapes that are described in this chapter.

(Ord. 1845 § 3, (2010))

CHAPTER 18.18
RADIO AND TELEVISION ANTENNAS

§ 18.18.010. Purpose.

(a) Satellite Antennas. Most homes in Burlingame are either built on flat lots or on hillsides. The flat lots are typically of relatively small size with substantial lot coverage. Hillside developments are visible from a wide area. Placement of satellite antennas can interfere with views of streetscape, natural vegetation and scenery in both flat and hillside areas. Therefore, in order to maintain the aesthetic objective of minimal intrusion into views of neighborhood streetscape, existing landscaping, long distance views and other natural effects, it is necessary that satellite antennas in residential zones be placed in the least obtrusive location upon residential properties while still allowing access to satellite signals. The purpose of this ordinance is to establish criteria for the location of satellite antennas consistent with federal standards, as amended in March 1996.

(b) Ham and CB Antennas. The purpose of this ordinance is to establish criteria for the location, height and bulk of ham radio and CB antennas that will reasonably accommodate amateur radio activities and create the minimum interference with those activities consonant with promoting local safety and aesthetic interests.

(c) Other Antennas. The purpose of this ordinance is to establish locational restrictions that will mitigate the visual impact of other types of antennas.

(Ord. 1327 § 1, (1986); Ord. 1513 § 1, (1994); Ord. 1549 § 1, (1996))

§ 18.18.020. Definitions.

"Antenna" means any combination of wood, metal, wire or other substance, which either alone or in combination with any supports, is erected or constructed for the purpose of receiving or transmitting radio, television or any other electronic or other type of signal.

"Ham" or "CB antenna" is a radio receiving and transmitting antenna for amateur radio and citizens band operation.

"Satellite antenna" is an antenna capable of receiving communications from a transmitter or a transmitter relay located in planetary orbit. Satellite antennas are sometimes referred to as "satellite earth station antennas," and "satellite dish antennas."

(Ord. 1327 § 1, (1986); Ord. 1513 § 1, (1994); Ord. 1519 § 1, (1995); Ord. 1549 § 1, (1996))

§ 18.18.025. Placement of satellite antennas.

Satellite antennas shall be installed in compliance with the following standards:

(a) Any satellite antenna that is 40 inches or less in diameter may be installed without restriction in any zone.

(b) Any satellite antenna that is larger than 40 inches but less than seven feet in diameter may be installed in any residential zone in compliance with the following standards:

(1) No part of the antenna shall exceed seven feet in height from the ground level directly beneath it;

(2) The antenna shall be installed in the rear yard and not within the side setbacks,

extended to the rear property line;

(3) The antenna shall be made of non-reflective material or painted with a non-reflective paint;

(4) The antenna shall be screened by walls, fences, vegetation or other materials from view of the first floor of buildings on adjacent properties and from any public right-of-way within 100 feet.

(c) Any satellite antenna that is seven feet or less in diameter may be installed in any nonresidential zone. Any satellite antenna located in the C-1 zone must be screened by walls, fences, vegetation or other materials from view of the first floor of buildings on adjacent properties and from any public right-of-way within 100 feet.

(d) Any satellite antenna that does not comply with the size and locational restrictions of this section shall not be installed without obtaining an antenna exception as provided in section 18.18.040.

(Ord. 1549 § 1, (1996); Ord. 1552 § 10, (1996))

§ 18.18.030. Ham, CB and other regulated antennas.

Any antenna, other than a satellite dish antenna, shall comply with the following standards in any zone:

(a) If the antenna is mounted on the ground:

(1) No part of the antenna shall be more than 25 feet in height from the ground level directly beneath it; and

(2) The antenna shall be installed in the rear yard and no portion of the antenna shall be located within or extend into the side setbacks, extended to the rear property line; or

(b) If the antenna is mounted on the roof:

(1) No part of the antenna shall be more than 10 feet above the closest portions of the roof on which it is mounted or exceed eight feet (8′) in length; and

(2) No part of the antenna shall be located or extend within three feet of any roof edge.

(c) Any antenna that does not comply with these standards shall obtain an antenna exception, as provided in Section 18.18.040.

(Ord. 1327 § 1, (1986); Ord. 1513 § 1, (1994); Ord. 1549 § 1, (1996))

§ 18.18.040. Antenna exception.

(a) Any person may apply for an exception from the antenna ordinance by applying for an antenna exception in accordance with the provisions of this section.

(b) Application for an antenna exception shall be made upon forms provided by the director of community development and shall include the following information:

(1) Name, address and telephone number of the applicant;

(2) Address and zoning district of the property on which the antenna is to be attached or

erected;

(3) Description of the proposed antenna, including location, height and width or diameter, and general description of the proposed installation;

(4) Description of any existing antenna, including location, height and width or diameter;

(5) Site plan which shall include the dimensions of the property, setbacks, and location of the proposed antenna and all structures, including any existing antennas.

(c) When the application requests an exception for a satellite antenna, the applicant shall provide the following additional information, in addition to the information required pursuant to subsection (b) of this section:

(1) The applicable circumstances and conditions existing on the property which materially limit transmission or reception if the antenna is placed according to the standards in section 18.18.025(b);

(2) Locations on the property where the antenna can be located so that satellite signals can reasonably be received, including both placement and height. The director of community development, planning commission or city council shall have discretion to require the applicant to submit a site study, prepared at the applicant's cost, identifying the locations where an antenna can be installed without materially limiting transmission.

(3) The cost of purchase and cost of proposed installation of the proposed antenna;

(4) The cost of trimming trees or removing other obstacles to reception at locations that meet the standards set forth in Section 18.18.025(b);

(5) Ways in which vegetation could be planted or trimmed to both provide screening and maintain a line of sight to satellites.

(d) When the applicant requests an exception for a ham or CB antenna, the applicant shall provide the following additional information, in addition to the information required pursuant to subsection (b) of this section:

(1) The location and design of an antenna that will reasonably accommodate the amateur's right to engage in ham radio transmissions while having the least visual intrusion on the surrounding properties;

(2) The nature and extent of amateur communications in which the applicant engages, including time, duration, places contacted and so forth;

(3) The director of community development, planning commission, or city council shall have discretion to require the applicant to submit a site reception study, prepared at the applicant's cost, to identify the locations and design of the antenna that will have the least visual impact on surrounding properties, maximize public safety, and reasonably accommodate the applicant's right to engage in amateur communications.

(e) When the applicant requests an exception for an antenna, other than a satellite, ham or CB antenna, the applicant shall provide, in addition to the information required pursuant to subsection (b) of this section, any other information relating to antenna configuration, network design and site selection which affects the aesthetic impact of the antenna.

(f) The director of community development shall charge a fee for an antenna exception which shall be established by resolution of the city council.

(Ord. 1513 § 1, (1994); Ord. 1549 § 1, (1996); Ord. 1806 § 9, (2007))

§ 18.18.060. Planning Commission action on antenna exceptions.

(a) An application for an antenna exception shall be processed pursuant to the procedures for granting a conditional use permit in Chapter 25.16 of this code.

(b) In granting or denying an antenna exception for a satellite antenna, the Planning Commission shall consider the following:

(1) Locations where the satellite dish antenna can be installed without materially limiting reception;

(2) Whether installing the satellite dish in such locations imposes costs of screening or pruning vegetation or other costs that exceed the price of purchasing and installing the antenna;

(3) The maximum extent to which the antenna can comply with the standards in Section 18.18.025(b) for size, location and screening while achieving reasonable reception of preferred programming.

(c) In granting or denying an antenna exception for a ham, CB or other antenna, the planning commission shall consider the following:

(1) The maximum extent to which the antenna can comply with the standards in Section 18.18.030(a) and (b) for size, location and screening while reasonably transmitting and receiving radio and television signals;

(2) Whether or not the antenna may be reasonably accommodated based on considerations of public health, safety, welfare and aesthetics.

(d) If the information in the record before the commission demonstrates that the antenna can be redesigned or relocated to reduce potential safety or visual impacts, the commission may impose conditions requiring the redesign or designating the relocation of the antenna. As an alternative, the commission may direct the applicant to redesign the antenna or designate a different location that will be less visually intrusive and resubmit the revised proposal for further consideration.

(Ord. 1513 § 1, (1994); Ord. 1549 § 1, (1996); Ord. 1603 § 13, (1998))

§ 18.18.070. Engineering report required.

Where the total weight of an antenna exceeds 500 pounds or where the total height of the pole and antenna exceeds 25 feet measured from the adjacent grade or, when built upon a building, where the total height of the roof mount and the antenna, exceeds 15 feet above the surface of the roof, the building official shall require that a plan and engineering calculations for wind load, bracing and foundation be prepared by a licensed civil or structural engineer. Such plans and specifications shall be prepared to meet or exceed the applicable requirements for such construction as set forth in Chapter 18.08 of this code as adopted or as it may be subsequently amended.

(Ord. 1513 § 1, (1994); Ord. 1549 § 1, (1996))

§ 18.18.080. Antennas existing on the effective date of this chapter.

Antennas existing prior to the adoption of the ordinance codified in this chapter and constructed or installed in accordance with codes that were applicable at the time of construction or installation may remain in place. Any such antennas that would not be allowed under this ordinance shall be deemed non conforming. Any antenna that was constructed or installed in violation of any prior ordinance shall either be removed or an application for an antenna exception shall be filed within 30 days after the effective date of the ordinance codified in this chapter.
(Ord. 1513 § 1, (1994); Ord. 1549 § 1, (1996))

CHAPTER 18.19
INDOOR WATER CONSERVATION

§ 18.19.010. Title.

This chapter shall be known as the city of Burlingame "Indoor Water Conservation Ordinance." (Ord. 1846 § 2, (2010))

§ 18.19.020. Coordination with the plumbing code.

The code of rules and regulations printed in one volume and published by the International Association of Plumbing and Mechanical Officials, under the title "California Plumbing Code, 2007 Edition," and the appendices printed therein, and all supplements subsequently issued thereto, hereinafter collectively called the "plumbing code," prescribing regulations for the installation of all plumbing fixtures, was adopted as amended, by the city of Burlingame, in Chapter 18.12 of the Burlingame Municipal Code, on November 7, 2007. Printed in book form and filed in the office of the city clerk and the chief building official, the Burlingame plumbing code establishes the rules, regulations, and standards within the city of Burlingame as to all matters therein contained; subject however, to the amendments, additions, and deletions set forth in this chapter. The mandatory requirements of the adopted appendix to the California Plumbing Code, 2007 Edition, shall be enforceable to the same extent as if contained in the body of the plumbing code. One copy of the plumbing code shall at all times be kept on file in the office of the city clerk. To the extent the provisions of this chapter conflict with any provisions in the existing plumbing code, the California Building Standards Code, or any other municipal codes in conflict, then the provisions of this chapter shall supersede and control with regard to the indoor fixture requirements described herein.
(Ord. 1846 § 2, (2010))

§ 18.19.030. Applicability.

(a) The provisions of this chapter shall apply to the following projects:

(1) All new construction, regardless of building classification, requiring a building permit, plan check or design review, or requiring new or expanded water service;

(2) All kitchen and bathroom remodels requiring a building permit, plan check, design review, new or expanded water service, except that the provisions of this chapter will only apply to the fixtures normally included in the kitchen or bathroom, as the case may be, to be remodeled.

(b) The provisions of this chapter shall not apply to:

(1) Existing buildings not seeking a building permit, plan check or design review;

(2) Registered local, state or federal historical sites;

(3) Remodels where, in the discretion of the city, the unique configuration of the building, its drainage system or portions of the public sewer, or both, are incompatible with efficiency standards listed in the Indoor Water Use Efficiency Table and require a greater quantity of water to flush the system in a manner that is consistent with public health.

(Ord. 1846 § 2, (2010))

§ 18.19.040. Definitions.

"Certified professional" means a licensed contractor, licensed architect or licensed professional engineer.

"Energy star qualified" means that a given fixture meets the United States Environmental Protection Agency standard for an energy efficient product.

"Gal/cycle" means gallons per cycle.

"Gal/100 lbs ice" means gallons per hundred pounds of ice.

"Gpf" means gallons per flush.

"Gpm" means gallons per minute.

"Local agency" means the city of Burlingame which is responsible for adopting, implementing and enforcing this chapter, including, but not limited to, approval of a permit and plan check or design review of a project.

"LSI" means Langlier Saturation Index providing an indication of the degree of saturation of water with respect to calcium carbonate related to cooling tower efficiency.

"Local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.

"Permit" means the document issued by the city in connection with new construction, remodels or renovations and which authorizes the lawful initiation of construction, improvements or repairs to a building or structure.

"Project applicant" means the individual or entity submitting an indoor water use efficiency checklist as required under Section 18.19.060(b) and requesting a permit, plan check, design review, or new or expanded water service application from the local agency. A project applicant may be the property owner or designee.

"RMF" means residential multifamily.

"Sq. ft." means square feet.
(Ord. 1846 § 2, (2010))

§ 18.19.050. Minimum indoor fixture requirements.

All new construction and applicable remodels will have, at a minimum, fixtures that comply with the efficiency standards listed in the Indoor Water Use Efficiency Table.

Indoor Water Use Efficiency Table		
Fixture	**Residential**	**Nonresidential**
Toilets	≤ 1.28 gpf, and ≥ 350 grams	≤ 1.28 gpf, and ≥ 350 grams
Urinals	≤ 0.5 gpf	≤ 0.5 gpf
Showers	≤ 2.0 gpm	≤ 2.0 gpm
Bathroom faucets	≤ 1.5 gpm	≤ 0.5 gpm
Kitchen faucets	≤ 2.2 gpm	≤ 2.2 gpm
Clothes washers	≤ 6.0 water factor	≤ 6.0 water factor

Indoor Water Use Efficiency Table		
Fixture	**Residential**	**Nonresidential**
Dishwashers	≤ 6.5 gal/cycle, or energy star qualified	energy star qualified
Cooling towers	≥ 5 - 10 cycles, or ≥ 2.5 LSI	≥ 5 - 10 cycles, or ≥ 2.5 LSI
Food steamers	--	Boiler less, or self-contained
Ice machines	--	≤ 25 gal/100 lbs ice, or air-cooled
Pre-rinse spray valves	--	≤ 1.15 gpm
Automatic vehicle wash facilities	--	≥ 50% of water that is recycled on site
Commercial refrigeration	--	Closed loop, or air-cooled
Meters	Submeters for RMF, and separate meter for outdoor if landscape >5000 sq. ft.	Submeters, and separate meter for outdoor if landscape >5000 sq. ft.

(Ord. 1846 § 2, (2010))

§ 18.19.060. Compliance with provisions.

(a) The city shall:

(1) Provide the project applicant with a copy of the ordinance codified in this chapter and an indoor water use efficiency checklist form when it provides the applicant with the procedures for permits, plan checks, design reviews or new or expanded water service applications;

(2) Review the indoor water use efficiency checklist submitted by the project applicant;

(3) Approve or deny the project applicant's indoor water use efficiency checklist submittal as part of the application review process;

(4) Upon approval of the indoor water use efficiency checklist, and after all other required permits and approvals have been obtained by the applicant, issue a permit or approve the plan check, design review or new or expanded water service application for the project applicant;

(5) In its discretion, inspect the installation of the water efficient fixtures and appliances to verify that they have been installed and are performing at the required use levels;

(6) Provide a copy of the complete indoor water use efficiency checklist to the city.

(b) The project applicant shall:

(1) Meet the minimum water use efficiency standards for indoor fixtures and appliances provided for in the indoor water use efficiency table and checklist;

(2) Prior to construction, submit all portions of the indoor water use efficiency checklist

to the city's (appropriate official) for verification;

(3) Construct the project in compliance with the minimum water use efficiency standards for indoor fixtures and appliances provided for in the indoor water use efficiency table and checklist.

(Ord. 1846 § 2, (2010))

§ 18.19.070. Components of the indoor water use efficiency checklist.

The indoor water use efficiency checklist shall require, at a minimum:

(a) Project information;

(b) Quantity and unit water use factors of all indoor fixtures and appliances relative to the standards listed in the Indoor Water Use Efficiency Table and checklist;

(c) Contain the following statement to be completed by the project applicant: "I certify that the subject project meets the specified requirements of the Indoor Water Use Efficiency Ordinance"; and

(d) Bear the signature of the project applicant, or that of a certified professional.

(Ord. 1846 § 2, (2010))

§ 18.19.080. Violations, penalties and enforcement.

(a) Violation. It is unlawful for any person, firm, partnership, association, or corporation subject to the requirements of this chapter to fail to comply with the water use efficiency requirements or to alter or replace the fixtures and appliances required by this chapter with other noncompliant fixtures or appliances after the completion of construction or remodel.

(b) Notice of Correction. Whenever the city determines that a violation of this chapter has occurred, the city may serve a notice of correction on the owner(s) of the property on which the violation is situated. The owner(s) of record shall have 90 days to take corrective action.

(c) Enforcement. If the owner of the property which is the subject of the violation fails to take corrective action within 90 days, the city may enforce this chapter according to the provisions of Chapter 1.12 of this code.

(Ord. 1846 § 2, (2010))

§ 18.19.090. Public education.

The local agency shall provide information to all applicants regarding the installation of water efficient fixtures and appliances.

(Ord. 1846 § 2, (2010))

CHAPTER 18.20
GRADING, EXCAVATION, FILLS

§ 18.20.010. Intent of chapter.

It is the purpose and policy of this chapter to promote the public welfare and safety by establishing minimum standards and requirements relating to excavation, grading and fills; to lessen the exposure to or probability of earth slides or flooding; and to establish procedures by which such requirements may be enforced.
(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.020. Definitions.

For the purposes of this chapter, the following definitions shall apply:

"Excavation" is any act by which earth, sand, gravel, rock or any other material is cut into, dug, quarried, uncovered, removed or relocated and shall include the condition resulting therefrom.

"Fill" is any act by which earth, sand, gravel, rock or any other material is deposited, placed, pushed, pulled or transported to a place other than the place from which it was excavated and shall include the conditions resulting therefrom.

"Grading" is an excavation or fill or any combination thereof and shall include the conditions resulting from any excavation or fill.
(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.030. Requirements for grading permits.

(a) No person shall fill, excavate or grade any site for any purpose nor change existing natural or previously prepared slopes without first obtaining a grading permit. A permit shall be required for each site upon which grading is to be done.

(b) Each application for a grading permit shall be made to the city engineer by the owner of record or his or her authorized agent. The required fee and any necessary deposits shall accompany the application.

(c) Plot plans shall be prepared for the purpose of any grading permit, whether for and in connection with a building permit or for any changes in the natural land grade for future use or subdivision. The plot plan shall show the location of existing and proposed structures, if any; the location of all existing and proposed streets, driveways and easements; the present contours of the site in dashed lines and the proposed finished contours in solid lines.

(d) When the grading permit is part of a building permit application, a plot plan shall be submitted showing location of the proposed building on the site and elevations of building above and below grade. Proposed disposition of surface drainage water shall be indicated on the plans. All plot plans shall be drawn by a licensed civil engineer, architect or land surveyor.
(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.040. Exceptions.

A grading or site development permit shall not be required for any of the following purposes

except that encroachment, building or other types of required permits must be obtained:

(1) Excavations below finished grade for tanks, vaults, basements or footings for buildings or structures, except as limited in the sections following;

(2) Excavation by public utility companies in public utility easements or in public ways for the purpose of installing or maintaining public utilities;

(3) Street improvement work in connection with improvement contracts awarded by the city over which the city exercises inspection authority;

(4) Work for the State Division of Highways or other state agencies;

(5) Minor changes in grade for the construction of a building where the plan for the finished grade is made a part of the construction plans and is approved by the building inspector or the city engineer.

(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.050. Application for permit.

To obtain a permit, the applicant shall file an application therefor in writing upon forms furnished by the city engineer. The application shall be signed by the owner of the property upon which the work is to be performed or by his or her duly authorized agent. Every such application shall contain the following information:

(1) The purpose of the work;

(2) The amount of material to be excavated or filled in cubic yards;

(3) The legal description of the property on which the work is to be performed and the street address at the point of access to the property;

(4) The name and address of the owner of the property;

(5) The name, address and telephone number of the person who will have effective control of the work;

(6) The estimated dates for starting and completing the work;

(7) Plot plans as noted above;

(8) Detailed plans of all walls, cribs, drains or other protective devices to be constructed in connection with or as a part of the proposed work.

(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.060. Criteria for approval of permit by city officials.

The city engineer, prior to approving a permit for grading, shall consider the following factors:

(1) Saturation of fill and unsupported cuts by water, both natural and domestic;

(2) Run-off of surface waters that produce erosion and silting of drainage ways;

(3) Subsurface conditions such as rock strata, faults and springs;

(4) Nature and type of soil or rock which, when disturbed by the proposed grading, may create earth movements;

(5) Effect upon the visual relationships with other development in the vicinity of the site;

(6) Whether the natural landscape and major vegetation is unnecessarily scarred through the proposed grading;

(7) Capability of proposed slopes to be landscaped.

The building inspector, prior to approving a building permit involving grading, shall consider the following factors:

(1) Distance from any existing or proposed building to toe of slope;

(2) Recommendations for drain tile installation, retaining walls, or other protective devices for disposition of surface and underground water.

(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.070. Standards.

The following minimum standards are established except that higher standards may be imposed when the city engineer finds that peculiar or extraordinary conditions on the site require imposition of special treatment to serve the purposes of this chapter:

(a) Slope Protection. Any graded slope which may be subject to erosion shall be protected by planting of trees, shrubs or groundcover; by berms, terracing, cribbing or lined ditches; or by a combination of these methods.

(b) Fill Compaction. All fills more than one foot in depth intended to support a building and all fills more than five feet in depth shall be compacted to not less than 90% density.

(c) Cut slopes shall not exceed one and one-half feet horizontally to one foot vertically. Fill slopes shall not exceed two feet horizontally to one foot vertically. If any cut slope disclosed the existence of inclined strata, fault lines, or other condition indicating a possible earth slide, the horizontal dimension must be increased to create a flatter slope.

(d) The finished grade shall be so sloped as to carry surface water to the nearest street, storm drain or natural watercourse.

(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.075. Maintenance of protective devices.

The owner of any property in hillside areas shall maintain in good condition and repair all retaining walls, cribbing, drainage structures, groundcover and other protective devices which are not on public property. Maintenance shall include necessary repairs, removal of silt deposits and any other required action to insure the intended purpose of the devices.

(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.080. Inspections.

The city engineer, or the building official in applicable cases, shall make an initial inspection of

the site after grading and construction stakes have been placed but before grading is commenced. A second inspection shall be made following rough grading. All subsurface drainage pipes or structures shall be inspected prior to backfilling. A final inspection shall be made when all work is completed.

The city engineer may require that the inspection of cuts or fills be made by a registered civil engineer, specializing in soil mechanics and foundation engineering, and that a report prepared and signed by the engineer be submitted upon completion of the work.
(Ord. 934 § 1, (1971); Ord. 1462, (1992))

§ 18.20.090. Fees.

Fees for filing applications and for inspections shall be established from time to time by resolution of the city council.
(Ord. 934 § 1, (1971); Ord. 1462, (1992))

CHAPTER 18.22
FLOOD DAMAGE PREVENTION

§ 18.22.010. Findings of fact.

(a) The flood hazard areas of the city of Burlingame are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

(b) These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.020. Statement of purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

(a) Protect human life and health;

(b) Minimize expenditure of public money for costly flood control projects;

(c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(d) Minimize prolonged business interruptions;

(e) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

(f) Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;

(g) Insure that potential buyers are notified that property is in an area of special flood hazard; and

(h) Insure that those who occupy the area of special flood hazard assume responsibility for their actions.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.030. Methods of reducing flood losses.

In order to accomplish its purpose, this chapter includes methods and provisions for:

(a) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(b) Requiring that uses vulnerable to floods, including facilities which serve such uses, be

protected against flood damage at the time of initial construction;

(c) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;

(d) Controlling filling, grading, dredging and other development which may increase flood damage; and

(e) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.100. Definitions.

The following words and terms shall, for the purposes of these regulations, have the meanings shown herein. Where terms are not defined in these regulations and are defined in the building code (CCR Title 24 Part 2) and used in the residential code (CCR Title 24 Part 2.5), such terms shall have the meanings ascribed to them in those codes. Where terms are not defined in these regulations or the building code, such terms shall have ordinarily accepted meanings such as the context implies.

"A zone." See "Special flood hazard area."

"Appeal" means a request for a review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.

"Area of shallow flooding" means a designated AO or AH Zone on the flood insurance rate map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

"Area of special flood hazard." See "Special flood hazard area."

"Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year (also called the "one-hundred-year flood").

"Base flood elevation (BFE)" means the elevation of the base flood, including wave height, relative to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) on the Flood Insurance Rate Map (FIRM) for zones AE, AH, and VE that indicates the water surface elevation resulting from a flood that has a one percent or greater chance of being equaled or exceeded in any given year.

"Basement" means any area of the building having its floor subgrade (below ground level) on all sides.

"Breakaway walls" are any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which they are used or any building to which they might be carried by floodwaters. A breakaway wall shall have a safe design loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:

(1) Breakaway wall collapse shall result from a water load less than that which would occur

during the base flood; and

(2) The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of a base flood.

"Coastal high hazard area" is the area subject to high velocity waters, including coastal and tidal inundation or tsunamis. The area is designated on a flood insurance rate map (FIRM) as zones V1 through V30.

"Conditional letter of map revision (CLOMR)" means a formal review and comment as to whether a proposed flood project or other project complies with the minimum NFIP Requirements for such projects with respect to delineation of or special flood hazard areas. A CLOMR does not revise the effective flood insurance rate map or flood insurance study; upon submission and approval of certified as-built documentation, a letter of map revision may be issued by FEMA to revise the effective FIRM.

"Development" means any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

"Design flood" means the flood associated with the greater of the following two areas: (1) area with a flood plain subject to a one-percent or greater chance of flooding in any year; (2) area designated as a flood hazard area on a community's flood hazard map, or otherwise legally designated.

"Design flood elevation" means the elevation of the "design flood," including wave height, relative to the datum specified on the community's legally designated flood hazard map. Also referred to as "flood protection elevation."

"Dry flood proofing" means the protection of non-residential structures, water supplies, and sewage systems. Dry flood proofing includes measures that make a structure watertight below the level that needs flood protection to prevent floodwaters from entering.

"Flood or flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) The overflow of floodwaters;

(2) The unusual and rapid accumulation or runoff of surface waters from any source; and/or

(3) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this definition.

"Flood boundary and floodway map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.

"Flood insurance rate map" (FIRM) means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the city.

"Flood insurance study" means the official report provided by the Federal Insurance

Administration that includes flood profiles, the FIRM, the flood boundary and floodway map, and the water surface elevation of the base flood.

"Floodplain or flood-prone area" means any land area susceptible to being inundated by water from any source (see "flood").

"Floodplain administrator" is the community official designated by title to administer and enforce the floodplain management regulations.

"Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.

"Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

"Floodproofing" means any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "regulatory floodway."

"Freeboard" means a factor of safety usually expressed in feet above a flood level for purposes of flood plain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

"Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

"Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Letter of map amendment (LOMA)" means an amendment based on technical data showing that a property was incorrectly included in a designated special flood hazard area. A LOMA amends the current flood insurance rate map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.

"Letter of map change (LOMC)" means an official determination issued by FEMA that amends or revises an effective flood insurance rate map or flood insurance study. letters of map change include:

(1) Letter of map amendment (LOMA);

(2) Letter of map revision (LOMR);

(3) Letter of map revision based on fill (LOMR-F);

(4) Conditional letter of map revision (CLOMR).

"Letter of map revision (LOMR)" means a revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.

"Letter of map revision based on fill" (LOMR-F) means a determination that a structure or parcel of land has been elevated by fill above the base flood elevation and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.

"Light-duty truck" as it pertains in this chapter only, and as defined in 40 C.F.R. 86.082-2, any motor vehicle rated at 8,500 pounds gross vehicular weight ratings or less which has a vehicular curb weight of 6,000 pounds or less which has a basic vehicle frontal area of 45 square feet or less, which is: (1) designed primary for purposes of transportation of property or is a derivation of such a vehicle; or (2) designed primary for transportation of persons and has a capacity of more than 12 persons; or (3) available with special features enabling off-street or off-highway operation and use.

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this chapter.

"Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.

"Market value" means the price at which a property will change hands between a willing buyer and a willing seller, neither party being under compulsion to buy or sell and both having reasonable knowledge of relevant facts. As used in these regulations, the term refers to the market value of buildings and structures, excluding the land and other improvements on the parcel. Market value may be established by one of the following methods: (1) actual cash value (replacement cost depreciated for age and quality of construction); (2) tax assessment value adjusted to approximate market value by a factor provided by the property appraiser; or (3) a qualified independent appraiser.

"Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which base flood elevations shown on flood insurance rate map are referenced.

"New construction" means, for floodplain management purposes, structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by the city.

"One-hundred-year flood" means a flood which has a one percent annual probability of being equaled or exceeded. It is identical to the "base flood," which will be the term used throughout this chapter.

"Person" means an individual or his or her agent, firm, partnership, association or corporation or agent of the aforementioned groups, or this state or its agencies or political subdivisions.

"Recreational vehicle" means a motor vehicle or trailer for recreational dwelling purposes; a motor home or other vehicle with a motor home body style which has its own motor power or is towed by another vehicle.

"Remedy a violation" means to bring the structure or other development into compliance with state or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impact may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

"Riverine" means relating to, performed by or resembling a river (including tributaries), stream, brook, etc.

"Sand dunes" means naturally occurring accumulations of sand in ridges or mounds landward of the beach.

"Sea level rise" means an increase in the level of the world's oceans due to the effects of global warming.

"Sheet flow area." See "area of shallow flooding."

"Special flood hazard area" (SFHA) means an area having special flood or flood-related erosion hazards, and shown on an FHBM or FIRM as zones A, AH, A1 through A30 and V1 through V30.

"Start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 12 months of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

"Substantial improvement" means any repair, reconstruction or improvement of a structure the cost of which equals or exceeds 50% of the market value of the structure either:

(1) Before the improvement or repair is started; or

(2) If the structure has been damaged, and is being restored, before the damage occurred. For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences,

whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:

(3) Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or

(4) Any alteration of a structure listed on the National Register of Historic Places or a state inventory of historic places.

"Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

"Violation" means the failure of structure or other development to be fully compliant with the city's floodplain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided.

"Water surface elevation" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

"Watercourse" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.
(Ord. 1211 § 1, (1981); Ord. 1326 § 1, (1986); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.310. Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the city of Burlingame.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.320. Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in "The Flood Insurance Study for the City of Burlingame," dated March 16, 1981 and April 5, 2019, with an accompanying flood insurance rate maps (FIRMs), and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this chapter. This FIS and attendant mapping is the minimum area of applicability of this chapter and may be supplemented by studies for other areas which allow implementation of this chapter and which are recommended to the city council by the floodplain administrator. The flood insurance study is on file at the Public Works Engineering Department, City Hall, 501 Primrose Road, Burlingame, California.
(Ord. 1211 § 1, (1981); Ord. 1326 § 2, (1986); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.330. Compliance.

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.340. Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter and other ordinance, easement, covenant or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.350. Interpretation.

In the interpretation and application of this chapter, all provisions shall be:

(a) Considered as minimum requirements;

(b) Liberally construed in favor of the governing body; and

(c) Deemed neither to limit nor repeal any other powers granted under state statutes.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.360. Warning and disclaimer of liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city of Burlingame, any officer or employee thereof, or the Federal Insurance Administration for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.410. Establishment of development permit.

For the purposes of this chapter, "development permit" shall mean a development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 18.22.320. Application for a development permit shall be made on forms furnished by the building official and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevation of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing. Specifically, the following information is required.

(a) Proposed elevation in relation to mean sea level of the lowest habitable floor (including basement) of all structures;

(b) Proposed elevation in relation to mean sea level to which any structure will be flood proofed;

(c) All appropriate certifications listed in Section 18.22.433; and

(d) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
(Ord. 1211 § 1, (1981); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.420. Designation of the floodplain administrator.

The city engineer is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.430. Duties and responsibilities of floodplain administrator.

Duties of the floodplain administrator shall include, but not be limited to, those set forth in Sections 18.22.431 through 18.22.435.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.431. Permit review.

The floodplain administrator shall review all development permits to determine that:

(a) The permit requirements of this chapter have been satisfied;

(b) All other required state and federal permits have been obtained;

(c) The site is reasonably safe from flooding;

(d) The proposed development does not adversely affect the carrying capacity of the floodway. For purposes of this chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point.

(e) All letters of map revision (LOMRs) for flood control projects are approved prior to the issuance of building permits. Building permits must not be issued based on conditional letters of map revision (CLOMRs).

(f) Require applicant to submit hydrologic and hydraulic engineering analyses to support permit applications to submit to FEMA the data and information necessary to maintain the Flood Insurance Rate Maps when the analyses indicate changes in base flood elevation, flood hazard area boundaries, or floodway designations; such submissions shall be made within six months of such data becoming available.

(Ord. 1211 § 1, (1981); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.432. Use of other base flood data.

When base flood elevation data has not been provided in accordance with Section 18.22.320, the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data available from a federal, state or other source in order to administer this chapter.

Note: A base flood elevation may be obtained using one of two methods from the FEMA publication, FEMA 265, "Managing Floodplain Development in Approximate Zone A Areas – A Guide for Obtaining and Developing Base (100-year) Flood Elevations" dated July 1995.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.433. Information to be obtained and maintained.

The floodplain administrator shall obtain and maintain for public inspection and make available

as needed for flood insurance policies:

(a) The certification required in Section 18.22.513(a) (floor elevations);

(b) The certification required in Section 18.22.513(b) (elevations in areas of shallow flooding);

(c) The certification required in Section 18.22.513(c) (elevation or floodproofing of nonresidential structures);

(d) The certification required in Section 18.22.513(d)(1) or (2) (wet floodproofing standard);

(e) The certified elevation required in Section 18.22.540(b) (subdivision standards);

(f) The certification required in Section 18.22.560(1) (floodway encroachments);

(g) The information required in Section 18.22.570 (coastal construction standards).

(Ord. 1211 § 1, (1981); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.434. Alteration of watercourses.

The floodplain administrator shall:

(a) Notify adjacent communities and the department of water resources prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency;

(b) Require that the flood-carrying capacity of the altered or relocated portion of the watercourse is maintained.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.435. Interpretation of FIRM boundaries.

The floodplain administrator shall make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 18.22.610 et seq.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.510. Standards.

The following standards are required in all areas of special flood hazards and public access, flood and sea level rise performance guidelines under Ord. 2000 (2021).

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.511. Anchoring.

(a) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrostatic and hydrodynamic loads, including the effect of buoyancy.

(b) All manufactured homes shall meet the anchoring standards of Section 18.22.550(a).

(Ord. 1211 § 1, (1981); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.512. Construction materials and methods.

(a) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(b) All new construction and substantial improvements shall be constructed using methods and practices that minimize damage.

(c) All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding under the current California building codes and FEMA requirements.

(d) Require within zone AH adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

(Ord. 1211 § 1, (1981); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.513. Elevation and floodproofing.

(a) New construction and substantial improvement of any residential structure in zone A, AE, AH shall have the lowest habitable floor, including basement, elevated above the based flood elevation plus one foot. Nonresidential structures may meet the standards in subsection (b) of this section. Upon completion of the structure the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or verified by the community building inspector to be properly elevated. Such certification or verification shall be provided to the floodplain administrator prior to building permit final and be dated within 180 days of submittal.

(b) Nonresidential construction shall provide a freeboard of one foot above the base flood elevation within the structure footprint of the first floor and/or comply with the standards adopted in Section 25.12.050 for properties in the commercial and industrial zoning districts related to sea level rise (SLR), whichever is stricter in conformance with subsection (a) of this section, or together with attendant utility and sanitary facilities:

(1) Be flood proofed so that below the base flood level, no greater than three feet, is watertight with walls substantially impermeable to the passage of water;

(2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

(3) Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such floodproofing certifications shall be provided to the floodplain administrator prior to building permit final and be dated within 180 days of submittal.

(c) In all new construction and substantial improvements fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

(1) Either a minimum of two openings having a total net area of not less than one square

inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; or

(2) Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.

(d) Manufactured homes shall also meet the standards in Section 18.22.550.
(Ord. 1211 § 1, (1981); Ord. 1326 § 3, (1986); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.520. Standards for storage of materials and equipment.

(a) The storage or processing of materials that are in time of flooding buoyant, flammable, explosive or could be injurious to human, animal or plant life is prohibited.

(b) Storage of other material or equipment may be allowed if not subject to major damage by floods and firmly anchored to prevent flotation or if readily removable from the area within the time available after flood warning.

(c) Trash and refuse storage areas must comply with Section 18.22.513(b).
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.530. Standards for utilities.

(a) All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters;

(b) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.540. Standards for subdivisions.

(a) All preliminary subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or five acres, whichever is the lesser, include within such proposals shall identify the flood hazard area and the base flood elevation data.

(b) All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the floodplain administrator.

(c) All subdivision proposals shall be consistent with the need to minimize flood damage.

(d) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

(e) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.550. Standards for manufactured homes.

All new and replacement manufactured homes and additions to manufactured homes shall:

(a) Be elevated so that the lowest floor is at or above the base flood elevation; and

(b) Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement.

(Ord. 1211 § 1, (1981); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.555. Standards for recreational vehicles.

Recreational vehicles on private property that are located in flood hazard areas, shall be placed on a site for less than 180 consecutive days or shall be fully licensed and ready for highway use. Ready for highway use means the recreational vehicle is on wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions, such as rooms, stairs, decks and porches.

(Ord. 2010 § 12, (2022))

§ 18.22.560. Floodways.

Located within areas of special flood hazard established in Section 18.22.320 are areas designed as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:

(a) Require until a regulatory floodway is designated, that no new construction, substantial improvements, encroachments or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge;

(b) If subsection (a) of this section is satisfied, all new construction and substantial improvement shall comply with all other applicable flood hazard reduction provisions of Sections 18.22.510 through 18.22.570.

(Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.570. Coastal high hazard area.

Coastal high hazard areas (V Zones) are located within the areas of special flood hazard established in Section 18.22.320. These areas have special flood hazards associated with high velocity waters from coastal and tidal inundation or tsunamis; therefore the following provisions shall apply.

(Ord. 1211 § 1, (1981); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.571. Location of structures.

(a) All buildings or structures shall be located landward of reach of the mean high tide.

(b) The placement of manufactured homes shall be prohibited.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.572. Construction methods.

(a) Elevation. All buildings or structures shall be elevated so that the lowest supporting member (excluding piles and columns) is located no lower than the base flood elevation level, with all space below the lowest supporting member open so as not to impede the flow of water, except for breakaway walls as provided for in subsection (c) of this section.

(b) Structural Support.

(1) All buildings or structures shall be securely anchored on pilings or columns.

(2) Pilings or columns used as structural support shall be designed and anchored so as to withstand all impact forces and buoyancy factors of the base flood.

(3) Fill used for structural support will be allowed only with permit from the floodplain administrator. Note: The use of fill for structural support of buildings within Zones V1-30, VE, and V on the community's FIRM is prohibited.

(4) Prohibit man-made alternation of sand dunes and mangrove stands within Zone V1-30, VE, and V on the community's FIRM which would increase potential flood damage.

(c) Space Below the Lowest Floor.

(1) Any alteration, repair, reconstruction or improvement to a structure started after the enactment of the ordinance codified in this chapter shall not enclose the space below the lowest floor unless breakaway walls are used as provided in this section.

(2) Breakaway walls may be allowed below the base flood elevation provided they are not a part of the structural support of the building and are designed so as to break away under abnormally high tides or wave action without damage to the structural integrity of the building on which they are to be used.

(3) If breakaway walls are utilized, such enclosed space shall not be used for human habitation.

(4) Prior to construction, plans for any structure that will have breakaway walls must be submitted to the floodplain administrator for approval.

(d) The floodplain administrator shall obtain and maintain the following records:

(1) Certification by a registered engineer or architect that a proposed structure complies with subsections (a) and (b) of this section;

(2) The elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings or columns) of all new and substantially improved structures, and whether such structures contain a basement.

(Ord. 1211 § 1, (1981); Ord. 1326 § 4, (1986); Ord. 1351 § 1, (1987); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.610. Appeals board.

The planning commission shall hear and decide appeals and requests for variances from the requirements of this chapter.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.611. Appeal procedure.

(a) The planning commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the floodplain administrator in the enforcement or administration of this chapter. Any person may appeal such decision to the city council as provided in Sections 25.16.070 and 25.16.080.

(b) In passing upon such appeals, the planning commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:

(1) The danger that materials may be swept onto other lands to the injury of others;

(2) The danger to life and property due to flooding or erosion damage;

(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(4) The importance of the services provided by the proposed facility to the community;

(5) The necessity to the facility of a waterfront location, where applicable;

(6) The availability of alternative locations, for the proposed use which are not subject to flooding or erosion damage;

(7) The compatibility of the proposed use with existing and anticipated development;

(8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

(9) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(10) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

(11) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water system, and streets and bridges.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.612. Variances.

Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided subdivisions (1) through (11) in Section 18.22.611(b) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.613. Variance conditions.

Upon consideration of the factors of Section 18.22.611 and the purposes of this chapter, the

planning commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.614. Variance records.

The floodplain administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.620. Conditions for variances.

(a) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

(b) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(c) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(d) Variances shall be issued only upon:

(1) A showing of good and sufficient cause;

(2) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

(3) A determination that the granting of a variance shall not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or notices.

(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

§ 18.22.621. Notice.

Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
(Ord. 1211 § 1, (1981); Ord. 1916 § 2, (2015); Ord. 2010 § 12, (2022))

CHAPTER 18.24
CREEK ENCLOSURE PERMITS

§ 18.24.010. Definitions.

For the purposes of this chapter the following definitions shall apply

"Creek" is defined as one of those watercourses so designated on the map attached as Exhibit "A" to the ordinance codified in this chapter and as detailed in the large scale map in the City Engineer's office titled "1989 Creek Map," based on said study.

"Study" means the study entitled Storm Drainage Study, Project #910, prepared for the city of Burlingame by Wilsey and Ham.
(Ord. 1412 § 1, (1990))

§ 18.24.020. Permit required.

(a) No creek shall be enclosed with a pipe or culvert without an enclosure permit. The procedures for the permit shall be those set forth in Chapter 25.16 of this code, except that notice of the application for the permit shall be limited to those property owners adjacent to the creek for a distance of 300 feet upstream and downstream of the applicant or to the nearest public cross street, whichever is more.

(b) Plans submitted for the permit must include at least the following: the creek to scale at least 300 feet upstream and downstream from the applicant's property or to the nearest public cross street, whichever is less; the one-hundred-year (100) flow elevation of both banks based on engineering calculations (unless waived by the city engineer); the top of bank; areas of existing natural vegetation including trees and vegetation within the creek; and any structures existing in and over the creek on either side, whether on the applicant's property or that of others.

(c) Criteria for reviewing the permit application shall include, but not be limited to, flow capacity, methods of keeping the structure clear of debris, economical life and ease of repair, horizontal alignment of the pipe or culvert, and length of pipe or culvert.

(Ord. 1419 § 1, (1990))

CHAPTER 18.28
UNREINFORCED MASONRY BUILDING HAZARD REDUCTION PROGRAM

§ 18.28.010. Purpose.

It is found and declared in the event of a strong or moderate local earthquake, loss of life or serious injury may result from damage or collapse of unreinforced masonry buildings in the city. The purpose of this chapter is to promote public safety by establishing a set of structural repair standards to be used to strengthen unreinforced masonry buildings and require owners to make their buildings conform to those standards within a reasonable period of time. The provisions of this chapter are minimum standards for structural seismic resistance established primarily to reduce the risk of life loss or injury but will not necessarily prevent loss of life or injury or prevent earthquake damage to an existing building which complies with these standards. This seismic hazard reduction program is consistent with CaliforniaHealth and Safety Code Sections 19160 through 19168 and Government Code Sections 8875 through 8878 et seq.
(Ord. 1419 § 1, (1990))

§ 18.28.020. Definitions.

For purposes of this chapter the words and phrases set out in this section shall mean as follows.

"Bearing wall" means any wall supporting a floor or roof where the total superimposed load exceeds 100 pounds per linear foot, or any unreinforced masonry wall supporting its own weight when over six feet in height.

"Civil engineer" or "structural engineer" means a licensed civil or structural engineer registered by the state pursuant to the rules and regulations of Title 16. Chapter 5 of the California Administrative Code.

"Occupant load" means the total maximum number of occupants in the building determined by either 1) Table 33-A of the Uniform Building Code or, 2) the actual maximum number of occupants in the building as certified by the building owner and current tenants.

"Story" means that portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above.

"Unreinforced masonry building" means any building containing walls constructed wholly or partially with any of the following materials and containing less than fifty percent of the minimum area of reinforcing steel required by the 1985 Uniform Building Code Section 2407 (h) 4 B:

1. Unreinforced brick masonry;

2. Unreinforced concrete masonry;

3. Hollow clay tile;

4. Adobe or unburned clay masonry.

(Ord. 1419 § 1, (1990))

§ 18.28.030. Scope of program.

Applicability. All unreinforced masonry buildings identified by the city, except those used

exclusively for residential purposes containing five or less living units.
(Ord. 1419 § 1, (1990))

§ 18.28.040. Owner notification.

The owners of unreinforced masonry buildings determined to be within the scope of this chapter will be notified in writing by the chief building inspector according to the schedule set forth in Section 18.28.050(b).
(Ord. 1419 § 1, (1990))

§ 18.28.050. Building categories and implementation schedule.

(a) Building Categories. Two categories of unreinforced masonry building are hereby established to define the minimum lateral forces to be used in their strengthening according to formula A-1-1.

1. High risk buildings are those which have two or more stories or maximum occupant load of more than 100 regardless of the number of stories. High risk buildings also include any structure with an unreinforced masonry parapet wall where the remainder of the building does not contain unreinforced masonry walls.

2. Medium risk buildings are those one story buildings with a maximum occupant load of one hundred or less.

(b) Implementation Schedule. The owners of all buildings within the scope of this chapter must submit plans to obtain a building permit for the structural modifications necessary to meet the minimum requirements of this chapter by January 1, 1995.

The owners of all buildings within the scope of this ordinance must complete construction of those structural modifications by June 30, 1996.

Notices providing a copy of the ordinance and stating the schedule for owner action will be sent to each building owner within 90 days of the effective date of the ordinance codified in this chapter.
(Ord. 1419 § 1, (1990); Ord. 1423 § 1, (1990))

§ 18.28.060. Extensions.

Extensions of the time periods set forth in Section 18.28.050(b) may be granted by the city council based upon economic hardship. A request for an extension must be received at least 90 days before the expiration of the time period affected.
(Ord. 1419 § 1, (1990); Ord. 1423 § 3, (1990))

§ 18.28.070. Structural repair standards.

The procedures and engineering standards establishing a minimum level of structural strengthening required for all unreinforced masonry buildings within the scope of this chapter are set forth in Section 18.28.080 of this chapter. The Uniform Code for Building Conservation Appendix Chapter One only, published in 1985 by the International Conference of Building Officials, Whittier, California, with amendments is hereby adopted as a part of this ordinance and all references in Sections 18.28.080 through 18.28.117 are to that appendix.
(Ord. 1419 § 1, (1990))

§ 18.28.080. Section A102 amended—Scope.

Section A102 is amended to read as follows:

Section A102. The requirements of this chapter shall apply to all buildings containing unreinforced masonry bearing walls.

Exception: This chapter shall not apply to a detached Group R, Division 3 Occupancy nor to a detached Group R, Division 1 Occupancy containing less than five dwelling units used solely for residential purposes.
(Ord. 1419 § 1, (1990))

§ 18.28.090. Section A103 amended—Alternate materials.

Section A103 is amended to read as follows:

Sec. A103. Alternate materials, designs and methods of construction may be approved by the Chief Building Inspector in accordance with this code.
(Ord. 1419 § 1, (1990))

§ 18.28.100. Section A105 amended—Historic buildings.

Section A105 is amended to read as follows:

Sec. A105. (a) General. A historic building may comply with the special provisions set forth in this chapter and the provisions of the State Historical Building Code.

(b) Archaic Materials. Allowable stresses for archaic materials not specified in this code shall be based on substantiating research data or engineering judgment with the approval of the Chief Building Inspector.

(Ord. 1419 § 1, (1990))

§ 18.28.110. Section A106 amended—Analysis and design.

(a) Section A106(a) through (d), (f)1 and (g)3 are amended to read as follows:

Sec. A106. (a) General. Every structure within the scope of this chapter shall be analyzed and constructed to resist minimum total lateral seismic forces assumed to act nonconcurrently in the direction of each of the main axes of the structure in accordance with the following equation:

$$V = ZIKCSW \quad (A1\text{-}1)$$

The value of KCS need not exceed but shall not be less than .100 for one story buildings with less than 100 occupants; and need not exceed but must not be less than .133 for one story buildings containing 100 or more occupants and buildings over one story above grade. The value of Z and I shall equal 1.0. The value of W shall be as defined in Chapter 23 of the 1985 Uniform Building Code.

(b) Lateral Forces on Elements of Structures. Parts or portions of buildings shall be analyzed and designed for lateral loads in accordance with Chapter 23 of the 1985 Uniform Building Code but not less than the value from the following equation:

Fp = ICpSWp (A1-2)

For the provisions of this section, the product of IS shall equal 1.0. The value of Cp shall be in accordance with Table 23-J of the 1985 Uniform Building Code. The value of Wp shall be as defined in Chapter 23 of the 1985 Uniform Building Code.

Exception: Unreinforced masonry walls in buildings not required to be designed as an essential facility may be designed in accordance with Section A107.

(c) Regulated Elements of Buildings. The elements of buildings required to be analyzed by this chapter include: 1) Height-to-thickness ratio of masonry walls; 2) Tension bolts in bending; 3) In-plane shear stress; 4) Parapets; 5) Diaphragm stresses and diaphragm chords in floors and roof.

(d) Anchorage and Interconnection. Anchorage and interconnection of all parts, portions and elements of the structure shall be analyzed and designed for lateral forces in accordance with the 1985 Uniform Building Code and the Formula (A1-2) of this code. Masonry walls shall be anchored to all floors and roof to resist a minimum force of 200 pounds per linear foot acting normal to the wall at the level of the floor or roof.

(f) Required Analysis. 1. General. Except as modified herein, the analysis and design relating to the structural alteration of existing buildings within the scope of this chapter shall be in accordance with the analysis specified in the 1985 Uniform Building Code. In addition the compatibility of the roof diaphragm stiffness with the out-of-plane stability of the unreinforced masonry bearing walls of the story immediately below the roof shall be verified in accordance with the provisions of Section A109.

Exception: Buildings with rigid concrete or steel and concrete roof diaphragms shall use the h/t values for all other buildings in Table A1-F.

(g) 3. Unreinforced masonry walls. In addition to the seismic forces required by this chapter, unreinforced masonry walls shall be analyzed as specified in the 1985 Uniform Building Code to withstand all vertical loads as specified in the Building Code. Such walls shall meet the minimum requirements set forth in the Building Code.

Exception: When calculating shear or diagonal tension stresses due to seismic forces, existing masonry shear walls may be designed to resist 1.0 times the required forces in lieu of the 1.5 factor required by the Building Code.

No allowable tension stress will be permitted in unreinforced masonry walls. Walls not capable of resisting the required design forces specified in this chapter shall be strengthened or shall be removed and replaced.

Exceptions:

1. Unreinforced masonry walls in buildings not classified as an essential facility may be analyzed in accordance with Section A107.

2. Unreinforced masonry walls which carry no design loads other than their own weight may be considered veneer if they are adequately anchored to new supporting elements.

   Substantial changes in wall thickness or stiffness shall be considered in the analysis

for out-of-plane and inplane wall stability, and the wall shall be restrained against out-of-plane instability by anchorage and bracing to the roof or floor diaphragm in accordance with Section A106(d).

Exception: Variations in wall stiffness caused by nominal openings such as windows and doors need not be considered.

(Ord. 1419 § 1, (1990))

§ 18.28.112. Section A107 amended—Materials of construction.

Section A107(b), (d) and (f) are amended to read as follows:

(b) Existing Materials. 1. Unreinforced masonry walls. Unreinforced masonry walls analyzed in accordance with this chapter may provide vertical support for roof and floor construction and resistance to lateral loads.

All units of both bearing and non-bearing walls shall be laid with full shoved mortar joints; all head, bed and wall (collar) joints shall be solidly filled with mortar; and the bonding of adjacent wythes of multi-wythe walls shall be as follows:

The facing and backing shall be bonded so that not less than 4 percent of the wall surface of each face is composed of headers extending not less than four inches into the backing. The distance between adjacent fulllength headers shall not exceed 24 inches either vertically or horizontally. In walls where a single header does not extend through the wall, headers from the opposite sides shall overlap at least four inches, or headers from opposite sides shall be covered with another header course overlapping the header below at least four inches.

Wythes of walls not bonded as described above shall be considered as veneer. The veneer wythe shall not be included in the effective thickness used to calculate the height-to-thickness ratio and the shear capacity of the wall.

Tension stresses due to seismic forces normal to the wall may be neglected if the wall does not exceed the height-to-thickness ratio set forth in Table A1-F and the in-plane shear stresses due to seismic loads set forth in Table A1-I. If the wall height-to-thickness ratio exceeds the specified limit, the wall may be supported by vertical bracing members designed to satisfy the requirements of the 1985 Uniform Building Code. The deflection of such bracing members at design loads shall not exceed one-tenth of the wall thickness.

Exception: The wall may be supported by flexible bracing members designed in accordance with Section A106(b) of this chapter if the deflection at design loads is not less than one-quarter nor more than one-third of the wall thickness at the level under consideration.

All vertical bracing members shall be attached to floor and roof construction for their design loads independently of required wall anchors. Horizontal spacing of vertical bracing members shall not exceed one-half the unsupported height of the wall nor ten feet, whichever is less.

The wall height may be measured vertically to bracing elements other than a floor or roof. Spacing of bracing elements and wall anchors shall not exceed six feet. Bracing elements shall be detailed to minimize the horizontal displacement of the wall by components of vertical displacements of the floor or roof.

2. Veneer. Veneer shall be anchored with approved anchor ties, conforming to the required design capacity specified in Section 3304(c) of the 1985 Uniform Building Code, and placed at a maximum spacing of 24 inches.

Exception: Existing veneer anchor ties may be acceptable provided the ties are in good condition and conform to the minimum size, maximum spacing and material requirements as indicated below. The veneer anchor ties shall be corrugated galvanized iron strips not less than one inch in width, eight inches in length and one-sixteenth of an inch in thickness and shall be located and laid in every alternate course in the vertical height of the wall at a spacing not to exceed 17 inches on center horizontally. As an alternate, the spacing may be every fourth course vertically at a spacing not to exceed nine inches on center horizontally.

The existence and condition of existing veneer anchor ties shall be verified as follows:

1. An approved testing laboratory shall verify the location and spacing of the ties and shall submit a report to the Chief Building Inspector for approval as a part of the structural analysis.

2. The veneer in a selected area shall be removed to expose a representative sample of ties (not less than four) for inspection by the Chief Building Inspector.

3. Existing roof, floors, walls, footings, and wood framing. Existing materials, including wood shear walls, may be used as a part of the lateral load resisting system, provided that stresses in these materials do not exceed the values shown in Table No. A1-G.

(d) Minimum Acceptable Quality of Existing Unreinforced Masonry Walls. 1. General Provisions. All unreinforced masonry walls utilized to carry vertical loads and seismic forces parallel and perpendicular to the wall plane shall be tested as specified in this subsection. All masonry quality shall equal or exceed the minimum standards established herein or shall be removed and replaced by new materials. The quality of mortar in all masonry walls shall be determined by performing in-place shear tests. The vertical wall joint between wythes (collar joint) shall be inspected at each test location after the in-place shear tests, and an estimate of the percentage of wythe to wythe mortar coverage shall be reported along with the results of the in-place shear tests. Where the exterior face is veneer, the type of veneer, its thickness and its bonding and/or ties to the structural wall masonry shall also be reported.

Nothing shall prevent the pointing with mortar of all the masonry wall joints before the tests are first made. Prior to any pointing, the mortar joints must be raked and cleaned to remove loose and deteriorated mortar. Mortar for pointing shall be Type S or N except masonry cements shall not be used. All preparation and mortar pointing shall be done under the continuous inspection of a special inspector.

At the conclusion of the inspection, the inspector shall submit a written report to the person responsible for the seismic analysis of the building setting forth the results of the work inspected. Such report shall be submitted to the Chief Building Inspector for approval as part of the structural analysis. All testing shall be performed in accordance with the requirements specified in this section by an approved agency. An accurate record of all such tests and their location in the building shall be recorded and these results shall be

submitted to the Chief Building Inspector for approval as part of the structural analysis.

2. Number and location of tests. The minimum number of tests shall be as follows. At each of both the first and top stories, not less than two per wall line or line of wall elements providing a common line of resistance to lateral forces. At each of all other stories, not less than one per wall element providing a common line of resistance to lateral forces. In any case, not less than one per 1500 square feet of wall surface and a total of eight.

   The shear tests shall be taken at locations representative of the mortar conditions throughout the entire building, taking into account variations in workmanship at different building height levels, variations in weathering of the exterior surfaces, and variations in the condition of the interior surfaces due to deterioration caused by leaks and condensation of water and/or by the deleterious effects of other substances contained within the building.

   Where the higher h/t ratios allowed in footnotes 4 and 5 of Table A1-F are to be utilized, all the in-place shear tests taken at the top story shall be included in the 80 percent of the shear tests used to determine the minimum mortar shear strength. The exact test locations shall be determined at the building site by the person responsible for the seismic analysis of the subject building.

3. In-place shear tests. The bed joint of the outer wythe of the masonry wall shall be tested by laterally displacing a single brick relative to the adjacent bricks in the wythe. The head joint opposite the load end of the test brick shall be carefully excavated and removed. The brick adjacent to the loaded end of the test brick shall be carefully removed by sawing or drilling and excavating to provide space for a hydraulic ram and steel loading blocks. Steel blocks the size of the end of the bricks shall be used on each end of the ram and shall not contact the bed joints. The load shall be applied horizontally in the plane of the wythe until either a crack can be seen or a slip occurs. The strength of the mortar shall be calculated by dividing the load at the time of the first crack or movement by the nominal gross area of the sum of the two bed joints.

(f) Determination of Allowable Stresses for Design Methods Based on Test Results. 1. Design shear values. Design seismic in-plane shear stresses shall be substantiated by tests performed as specified in Item No. 3 of Subsection (d). The minimum quality mortar in 80 percent of the tests shall not be less than the total of 30 psi when reduced to an equivalent zero axial stress.

Design stresses shall be related to test results obtained in accordance with Table No. A1-I. Intermediate values between 5 and 10 psi may be interpolated.

(Ord. 1419 § 1, (1990))

§ 18.28.113. Section A108 amended—Information required on plans.

Section A108(b) and (c) are amended to read as follows:

(b) Construction Details. The following requirements with appropriate construction details shall be made a part of the approved plans:

1. All unreinforced masonry walls shall be anchored at the roof and ceiling levels by tension bolts through the wall as specified in Table A1-H, or by an approved

equivalent at a maximum anchor spacing of six feet.

All unreinforced masonry walls shall be anchored at all floors and ceiling with tension bolts through the wall or by existing rod anchors at a maximum anchor spacing of six feet. All existing rod anchors shall be secured to the joists to develop the required forces. Tests conforming to this chapter will be required to verify the adequacy of the embedded ends of existing rod anchors.

Exception: Walls need not be anchored to ceiling systems that, because of their low mass and or relative location with respect to the floor or roof systems, would not impose significant normal forces on the wall and cause out-of-plane wall failure. Calculations and drawings to verify this exception must be submitted as part of the analysis.

At the roof and all floor levels, the anchors nearest the building corners shall be combination shear and tension anchors located not more than two feet horizontally from the inside corners of the walls.

When access to the exterior face of the masonry wall is prevented by proximity of an existing building, wall anchors conforming to Items 5 (a) or (b) in Table No. A1-H may be used.

Alternative devices to be used in lieu of tension bolts for masonry wall anchorage shall be tested as specified in Section A107(h).

2. Diaphragm chord stresses of horizontal diaphragms shall be developed in existing materials or by the addition of new materials.

3. Where trusses and beams other than rafters or joists are supported on masonry independent secondary columns shall be installed to support vertical loads.

4. Parts and exterior wall appendages not capable of resisting the forces specified in this chapter shall be removed, stabilized, or braced to ensure that the parapets and appendages remain in their original position. The maximum height of an unbraced, unreinforced masonry parapet above the lower of either the level of tension anchors or roof sheathing, shall not exceed one and one-half times the thickness of the parapet wall. If the required parapet height exceeds this maximum height a bracing system designed for the force factors specified in the Table 23-J of the 1985 Uniform Building Code shall support the top of the parapet. Parapet corrective work must be performed in conjunction with the installation of tension roof anchors.

   The minimum height of a parapet above the wall anchor shall be 12 inches.

   Exception: If a reinforced concrete beam is provided at the top of the wall, the minimum height above the wall anchor may be six inches.

5. All deteriorated mortar joints in unreinforced masonry walls shall be pointed with Type S or N mortar. Prior to any pointing, the wall surface must be raked and cleaned to remove loose and deteriorated mortar. All preparation and pointing shall be done under the continuous inspection of a special inspector. At the conclusion of the project, the inspector shall submit a written report to the Chief Building Inspector setting forth the portion of work inspected.

6. Repair details for any cracked or damaged unreinforced masonry wall required to resist forces specified in this chapter.

(c) Existing Construction. The following existing construction information shall be made part of the approved plans:

1. The type and dimensions of existing walls and the size and spacing of floor and roof members.

2. The extent and type of existing wall anchorage to floors and roof.

3. The extent and type of any parapet bracing or other structural reinforcement to parts and portions of the building which were previously performed.

4. Accurately dimensioned floor plans and masonry wall elevations showing dimensioned opening, piers, wall thickness and heights, veneer locations and existing anchorages.

5. The locations of cracks or other damaged portions of unreinforced masonry walls requiring repair.

6. The type of interior wall surfaces and ceilings, and if reinstalling or anchoring of existing plaster is necessary.

7. The general condition of the mortar joints and if the joints need repointing.

8. The location of all in-place shear tests shall be shown on the floor plans and building wall elevations.

(Ord. 1419 § 1, (1990))

§ 18.28.114. Section A109 added—Design check.

Section A109 is added to read as follows:

Design Check for Compatibility of Roof Diaphragm Stiffness to Unreinforced Masonry Wall Out-of-Plane Stability.

Sec. A109

(a) General. The requirements of this section are in addition to the other analysis requirements of this Chapter. The relative stiffness and strength of a diaphragm governs the amount of amplification of the seismic ground motion by the diaphragm, and therefore, a diaphragm stiffness and strength related check of the out-of-plane stability of unreinforced masonry walls anchored to wood diaphragms shall be made. This section contains a procedure for evaluation of the out-of-plane stability of unreinforced masonry walls anchored to wood diaphragms that are coupled to shear resisting elements.

(b) Definitions. The following definitions are applicable to this section.

Cross Wall. A wood framed wall having a height to length ratio complying with Section 4713(d) or Table 25-I of the 1985 Uniform Building Code and sheathed with any of the materials described in Table A1-J or Table A1-K. The total strength of all cross walls located within any 40 feet length of diaphragm measured in the direction of the diaphragm span shall not be less than 30 percent of the strength of the diaphragm in the direction of

consideration.

Demand Capacity Ratio (DCR). A ratio of the following:

1. Demand equals the lateral forces due to 33 percent of the combined weight of the diaphragm and the tributary weight of the wall and other elements anchored to the diaphragm.

2. Capacity equals the diaphragm total shear strength in the direction under consideration as determined using the values in Tables No. A1-J or Table A1-K.

(c) Notations.

D = depth of diaphragm, in feet, measured perpendicular to the diaphragm span.

h/t = height-to-thickness of an unreinforced masonry wall. The height shall be measured between wall anchorage levels and the thickness shall be measured through the wall cross section at the level under consideration.

L = span of diaphragm between masonry shear walls or steel frames.

Vc = total shear capacity of cross walls in the direction of analysis immediately below the diaphragm level being investigated as determined by using Tables No. A1-J and A1-K.

vu = maximum shear strength in pounds per foot for a diaphragm sheathed with any of the materials given in Tables No. A1-J or A1-K.

Wd = total dead load of the diaphragm plus the tributary weight of the walls anchored to the diaphragm, the tributary ceiling and partitions and weight of any other permanent building elements at the diaphragm level under consideration.

(d) Design Check Procedure.

1. General. The demand capacity ratio (DCR) for the building shall be calculated using the following equations:

DCR = 0.33 Wd / 2vu D For building without cross walls or

DCR = 0.33 Wd / 2vu D + Vc For building with cross walls

2. Diaphragm Deflection. The calculated DCR shall be to the left of the curve in Figure No. A1-L. Where the calculated DCR is outside (to the right of) the curve, the diaphragm deflection limits are exceeded and cross walls may be used to reduce the deflection.

3. Unreinforced Masonry Wall Out-of-Plane Stability. The DCR shall be calculated discounting any cross wall. If the DCR from this method corresponding to the diaphragm span is to the right of the curve in Figure No. A1-L, the region within the curve at and below the intersection of the diaphragm span with the curve may be used to determine the allowable h/t values per Table No. A1-F.

(Ord. 1419 § 1, (1990))

§ 18.28.115. Tables deleted and amended.

Tables No. A1-A, A1-B, A1-C, A1-D and A1-E are deleted and Tables A1-F and A1-H are

amended to read as follows:

TABLE NO. A1-F
ALLOWABLE VALUE OF HEIGHT-THICKNESS (h/t) RATIO OF UNREINFORCED MASONRY WALLS WITH MINIMUM QUALITY MORTAR[12]

	BUILDINGS WITH COMPLYING CROSS WALLS	ALL OTHER BUILDINGS
One Story Building Walls	13 — 16[345]	13
First Story of Multi-Story Buildings	16	15
Walls in the Top Story of Multi-Story Buildings	9 — 14[345]	9
All Other Walls	16	13

1 Minimum mortar quality shall be determined by laboratory testing in accordance with this chapter.

2 This table is not applicable to buildings classified as essential facilities. Such building must be analyzed in accordance with Section A106.

3 The minimum mortar shear strengths required in the following footnotes 4 and 5 shall be that shear strength without the effect of axial stress in the wall at the point of the test.

4 The larger height-to-thickness ratio may be used where mortar shear tests in accordance with Section A107(d) establish a minimum mortar shear strength of not less than 100 psi or where the tested mortar shear strength is not less then 60 psi and a visual examination of the vertical wythe-to-wythe wall joint (collar joint) indicates not less than 50 percent mortar coverage.

5 Where a visual examination of the collar joint indicates not less than 50 percent mortar coverage and the minimum mortar shear strength when established in accordance with Section A107(d) is greater than 30 psi but less than 60 psi, the allowable height-to-thickness ratio may be determined by linear interpolation between the larger and smaller ratio values in direct proportion to the mortar shear strength.

TABLES NO. A1-H ALLOWABLE VALUES OF NEW MATERIALS USED IN CONJUNCTION WITH EXISTING CONSTRUCTION	
New Materials or Configuration of Materials[1]	**Allowable Values**
1. Horizontal Diaphragms Plywood sheathing applied directly over existing straight sheathing with ends of plywood sheets bearing on joists or rafters and edges of plywood located within the center 1/3 of individual sheathing boards.	Same as specified in Table 25-J of the 1985 Uniform Building Code for blocked diaphragms.
2. Shear Walls	Same as values specified in Table
a. Plywood sheathing applied directly over existing wood studs. (No value shall be given to plywood applied over existing plaster or wood sheathing boards).	No. 25-K of the 1985 UBC for shear walls.
b. Dry wall or plaster applied directly over existing wood studs.	75 percent of the values specified in Table No. 47-I of the 1985 UBC.
c. Dry wall or plaster applied to plywood sheathing over wood studs.	One-third of the values specified in Table No. 47-I of the 1985 UBC.
3. Shear Bolts Shear bolts and shear dowels embedded a minimum of 8 inches into unreinforced masonry walls. Bolt centered in a 2-1/2 inch diameter hole with drypack or non-shrink grout around the circumference of the bolt.[13]	133 percent of the values for plain masonry specified in Table No. 24-J of the 1985 UBC. No values larger than those given for 3/4 inch diameter bolts shall be used.
4. Tension Bolts Tension bolts and tension dowels extending entirely through URM walls secured with bearing plates on far side of wall with at least 30 square inches of area.[234]	1200 pounds per bolt.
5. Combination Shear and Tension Wall Anchors	
(a) Bolts extending to the exterior face of the wall with a 2-1/2 inch round plate under the head. Install as specified for shear bolts. Spaced not closer than 12 inches on centers.[123]	600 lbs. per bolt for tension[4]. See Item 3 (Shear Bolts) for shear values.
(b) Bolts or dowels extending to the exterior face of the wall with a 2-1/2 inch round plate under the head and drill at an angle of 22-1/2 degrees to the horizontal. Install as specified for shear bolts.[123]	1200 lbs. per bolt or dowel for tension[4]. See Item 3 for shear values.

TABLES NO. A1-H
ALLOWABLE VALUES OF NEW MATERIALS USED IN CONJUNCTION WITH EXISTING CONSTRUCTION

New Materials or Configuration of Materials[1]	Allowable Values
(c) Through bolt with bearing plate for tension per Item 4. Combined with minimum 8 inch grouted section for shear per Item 3.	See Item 4 (Tension Bolts) for tension values[4]. See Item 3 for shear values.
6. Infilled Walls Reinforced masonry infilled openings in existing unreinforced masonry walls with keys or dowels to match reinforcing.	Same as values specified for unreinforced masonry walls in this chapter.
7. Reinforced Masonry Masonry piers and walls reinforced as specified in Chapter 24 of the 1985 Uniform Building Code.	Same as values specified in Table No. 24-B of the Uniform Building Code. 1985
8. Reinforced Concrete Concrete footings, walls and piers reinforced as specified in Chapter 26 and designed for tributary loads.	Same as values specified in Chapter 26 of the 1985 Uniform Building Code
9. Existing Foundation Loads Foundation loads for structures exhibiting no evidence of settlement.	Calculated existing foundation loads due to maximum dead load plus live load may be increased by 25 percent and may be increased 50 percent for dead load plus seismic loads required by this chapter.

1 Bolts and dowels to be tested as specified in Section A107.

2 Bolts and dowels to be 1/2-inch diameter minimum.

3 Drilling for bolts and dowels shall be done with an electric rotary drill. Impact tools shall not be used for drilling holes or tightening anchor and shear bolt nuts.

4 Allowable bolt and dowel values specified are for installations in minimum three wythe wall. For installations in two wythe walls use 50 percent of the value specified, except that no value shall be given to tension bolts that do not extend entirely through the wall and are secured with bearing plates on the far side.

(Ord. 1419 § 1, August 20, 1990)

§ 18.28.116. Tables added.

Table Nos. A1-J and A1-K and Figure A1-L are added to read as follows:

TABLE NO. A1-J
ALLOWABLE VALUES FOR EXISTING MATERIALS TO BE USED ONLY IN THE COMPUTATION OF THE DEMAND CAPACITY RATIO DESIGN CHECK

Existing Materials or Configuration of Materials[1]	Allowable Values
1. Horizontal Diaphragms	
a. Roofs with straight sheathing and roofing applied directly to the sheathing.	100 lbs. per foot for seismic shear.
b. Roofs with diagonal sheathing and roofing applied directly to the sheathing.	250 lbs. per foot for seismic shear.
2. Cross Walls[2]	Per Side:
a. Plaster on wood or metal lath.	200 lbs. per foot for seismic shear.
b. Plaster on gypsum lath.	175 lbs. per foot for seismic shear.
c. Gypsum wall board unblocked edges.	75 lbs. per foot for seismic shear.
d. Gypsum wall board blocked edges.	125 lbs. per foot for seismic shear.

[1] Materials must be sound and in good condition.

[2] For cross walls, values of all materials may be combined, except the total combined value shall not exceed 300 lbs. per foot for seismic shear.

TABLE NO. A1-K
ALLOWABLE VALUES FOR NEW MATERIALS USED IN CONJUNCTION WITH EXISTING CONSTRUCTION MATERIALS TO BE USED ONLY IN THE COMPUTATION OF THE DEMAND CAPACITY RATIO DESIGN CHECK

New Materials or Configuration of New and Existing Materials[1]	Allowable Values
1. Horizontal Diaphragms	
a. Plywood sheathing applied directly over existing straight sheathing with ends of plywood sheets bearing on rafters and edges of plywood located on the center of individual sheathing boards.	225 lbs. per foot for seismic shear.
2. Cross Walls	

TABLE NO. A1-K
ALLOWABLE VALUES FOR NEW MATERIALS USED IN CONJUNCTION WITH EXISTING CONSTRUCTION MATERIALS TO BE USED ONLY IN THE COMPUTATION OF THE DEMAND CAPACITY RATIO DESIGN CHECK

New Materials or Configuration of New and Existing Materials[1]	Allowable Values
a. Plywood sheathing applied directly over existing wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing.	1.33 times the values specified in Table 25-K of the 1985 UBC.
b. Drywall or plaster applied directly over existing wood studs.	100 percent of the values specified in Table 47-I of the 1985 UBC.

1 Materials must be sound and in good condition.

2 For cross walls values of all materials may be combined, except the total combined shear value shall not exceed 300 lbs. per foot for seismic shear.

FIGURE A1-L

1. Region of demand/capacity ratios where cross walls may be used to increase H/T ratios.
2. Region of demand/capacity ratios where H/T ratios of "with cross walls" may be used whether or not they are present.
3. Region of demand/capacity ratios where H/T ratios of "all other buildings" must be used even if cross walls are present.

Demand/capacity ratio = 0.33 Wd / 2 vuD or 0.33 Wd / 2 vuD + Vc.

(Ord. 1419 § 1, August 20, 1990)

§ 18.28.117. Remedies.

It is unlawful for the owner of a building identified as being within the scope of this ordinance to fail to submit plans and obtain a permit for correction of structural deficiencies discovered, or fail to complete the necessary structural corrections within the time period specified in Section 18.28.050(b). The city may invoke all remedies available at law, including, but not limited to, the following.

(a) The city may revoke the building's certificate of occupancy and cause it to be vacated until such requirements are met.

(b) The city may seek injunctive relief on behalf of the public to enjoin a building owner's violation of this ordinance.

(Ord. 1419 § 1, August 20, 1990)

CHAPTER 18.30
GREEN BUILDING STANDARDS CODE

§ 18.30.010. Adoption of 2022 California Green Building Standards Code.

The rules, regulations and standards printed in one volume and published by the International Code Council (ICC), under the title "2022 California Green Building Standards Code" adopted as the "2022 California Green Building Standards Code," including Appendix Chapter A4 and the state of California amendments thereto, is adopted as and for the rules, regulations and standards within this city as to all matters therein contained, except as otherwise provided in this chapter. Appendix Chapter A4 of the Green Building Standards Code shall be enforceable to the same extent as if contained in the body of the code.
(Ord. 2032, 11/4/2024)

§ 18.30.020. Exemptions and exceptions.

(a) Exemptions. Any project that has submitted an application deemed complete by the director of community development for either a planning or building entitlement prior to January 1, 2023, is exempt from the city of Burlingame's local amendments to Title 24, Part 11: The California Green Building Standards Code (CAL Green) that went into effect on January 1, 2023. All projects must still comply with any local amendments to the California Energy Code applicable to the project that were in place prior to January 1, 2023, as well as with all other applicable local, state and federal codes and regulations.

(b) Exceptions. If the applicant establishes that there is not a compliance pathway for the building under the city's local amendments to the California Green Building Standards Code (effective January 1, 2023), and that the building is not able to achieve the performance compliance standard applicable to the building under these same standards using commercially available technology and an approved calculation method, or if it is demonstrated that there is equivalent greenhouse gas reduction, then the building official may grant an exception.

(c) Exception Process.

(1) Granting of Exception. If the building official or designee determines that it is infeasible for the applicant to fully meet the requirements of this chapter and the exception listed above applies, the building official or designee, shall determine the maximum feasible threshold of compliance reasonably achievable for the project. The decision of the building official or designee shall be provided to the applicant in writing. If an exception is granted, the applicant shall be required to comply with this chapter in all other respects and shall be required to achieve, in accordance with this chapter, the threshold of compliance determined to be achievable by the building official or designee.

(2) Denial of Exception. If the building official or designee determines that it is reasonably possible for the applicant to fully meet the requirements of this chapter, the request for exception shall be denied and the building official or designee shall so notify the applicant in writing. The project and compliance documentation shall be modified to comply with this chapter prior to further review of any pending planning or building permit application.

(3) Appeals of Exception Denial. If denied the exception, the applicant may appeal the denial in writing to the director of community development. Such appeal must be received by the city within five business days from the date the applicant was given notice of the denial. The director will consider the information provided, and render a written decision regarding infeasibility based on the factors set forth in this chapter. The decision of the director shall be final.

(Ord. 2032, 11/4/2024)

§ 18.30.030. Local amendments.

The following local amendments are made to the 2022 California Green Building Standards Code:

(a) **Chapter 2:**

SECTION 202 — DEFINITIONS

AFFORDABLE HOUSING. Residential buildings that entirely consist of units below market rate and whose rents or sales prices are governed by local agencies to be affordable based on area median income.

AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS). A control system designed to manage load across one or more electric vehicle supply equipment (EVSE), circuits, panels and to share electrical capacity and/or automatically manage power at each connection point. ALMS systems shall be designed to deliver no less than 3.3 kVa (208/240 volt, 16-ampere) to each EV Capable, EV Ready or EVCS space served by the ALMS, and meet the requirements of California Electrical Code Article 625. The connected amperage to the building site for the EV charging infrastructure shall not be lower than the required connected amperage per California Green Building Standards Code, Title 24 Part 11.

DIRECT CURRENT FAST CHARGING (DCFC) PARKING SPACE. A parking space provided with electrical infrastructure that meets the following conditions:

i. A minimum of 48 kVa (480 volt, 100-ampere) capacity wiring.

ii. Electric vehicle supply equipment (EVSE) located within three (3) feet of the parking space providing a minimum capacity of 80-ampere.

ELECTRIC VEHICLE CHARGING STATION (EVCS). A parking space that includes installation of electric vehicle supply equipment (EVSE) at an EV Ready space. An EVCS space may be used to satisfy EV Ready space requirements. EVSE shall be installed in accordance with the California Electrical Code, Article 625.

ELECTRIC VEHICLE (EV) READY SPACE. [HCD] A vehicle space which is provided with a branch circuit; any necessary raceways, both underground and/or surface mounted; to accommodate EV charging, terminating in a receptacle or a charger.

FUEL GAS. A gas that is natural, manufactured, liquefied petroleum, or a mixture of these.

LEVEL 2 EV CAPABLE. A parking space provided with electrical infrastructure that meets the following requirements:

i. Conduit that links a listed electrical panel with sufficient capacity to a junction box or receptacle located within three (3) feet of the parking space.

ii. The conduit shall be designed to accommodate at least 8.3 kVa (208/240 volt, 40-ampere) per parking space. Conduit shall have a minimum nominal trade size of 1 inch inside diameter and may be sized for multiple circuits as allowed by the California Electrical Code. Conduit shall be installed at a minimum in spaces that will be inaccessible after construction, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits, and such additional elements deemed necessary by the Building Official. Construction documents shall indicate future completion of conduit from the panel to the parking space, via the installed inaccessible conduit.

iii. The electrical panel shall reserve a space for a 40-ampere overcurrent protective device space(s) for EV charging, labeled in the panel directory as "EV CAPABLE."

iv. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

v. The parking space shall contain signage with at least a 12 inches font adjacent to the parking space indicating the space is EV Capable.

LEVEL 1 EV READY. A parking space that is served by a complete electric circuit with the following requirements:

i. A minimum of 2.2 kVa (110/120 volt, 20-ampere) capacity wiring.

ii. A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.

iii. Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.

LEVEL 2 EV READY. A parking space that is served by a complete electric circuit with the following requirements:

i. A minimum of 8.3 kVa (208/240 volt, 40-ampere) capacity wiring.

ii. A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 30-ampere.

LOW POWER LEVEL 2 EV READY. A parking space that is served by a complete electric circuit with the following requirements:

i. A minimum of 4.1 kVA (208/240 Volt, 20-ampere) capacity wiring.

ii. A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.

iii. Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.

(b) **CHAPTER 3 — GREEN BUILDING**

301.1.1 Additions and alterations.

The mandatory provisions of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings.

The mandatory provisions of Section 5.106.5.3 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing nonresidential buildings.

NOTE: Repairs including, but not limited to, resurfacing, restriping, and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

(c) **CHAPTER 4 — RESIDENTIAL MANDATORY MEASURES**

4.106.4 Electric vehicle (EV) charging. Residential-construction shall comply with Section 4.106.4.1 or 4.106.4.2, and 4.106.4.3, to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s). Calculation for spaces shall be rounded up to the nearest whole number.

Exceptions:

1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:

    1.1. Where there is no local utility power supply or the local utility is unable to supply adequate power.

    1.2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may increase construction cost by an average of $4,500 per parking space for market rate housing or $400 per parking space for affordable housing. EV infrastructure shall be provided up to the level that would not exceed this cost for utility service.

2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities and without electrical panel upgrade or new panel installation. Detached ADUs, attached ADUs, and JADUs without additional parking but with electrical panel upgrades or new panels must have reserved breakers and electrical capacity according to the requirements of 4.106.4.1.

3. Multifamily residential R-2 building projects that have approved entitlements before the code effective date shall provide, based on the total number of parking spaces, at least five percent (5%) with EVCS Level 2 EV Ready, twenty-five percent (25%) with Low Power Level 2 EV Ready, and ten percent (10%) with Level 2 EV Capable according to 2022 California Green Building Standards Code requirements.

4.106.4.1 One- and two-family dwellings and town-houses with private garages.

4.106.4.1.1 New Construction. One parking space provided shall be a *Level 2 EV Ready* space. If a second parking space is provided, it shall be provided with a *Level 1 EV Ready* space.

4.106.4.1.2 Existing Building. Parking additions or electrical panel upgrades must have reserved breaker spaces and electrical capacity according to the requirements of 4.106.4.1.1.

4.106.4.2 Multifamily dwellings with residential parking facilities. Requirements apply to parking spaces that are assigned or leased to individual dwelling units, as well as unassigned residential parking. Visitor or common area parking is not included.

4.106.4.2.1 New Construction. Forty percent (40%) of dwelling units with parking spaces shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Sixty percent (60%) of dwelling units with parking spaces shall be provided with at minimum a Level 1 EV Ready space. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A. EVCS shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B.

Note: The total number of EV spaces should be one-hundred percent (100%) of dwelling units or one-hundred percent (100%) of parking spaces, whichever is less.

4.106.4.2.2 Existing Buildings.

1. When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten percent (10%) of the total number of parking spaces added or altered shall be EVCS. Any existing EV Capable spaces on the building property required by the locally adopted codes at the time of building permit shall be upgraded to a minimum of Level 1 EV Ready. Upgrades shall be required at currently designated vehicle parking spaces. Upgrades shall be required for remaining parking spaces after meeting the accessibility requirements of California Building Code Chapters 11A and 11B.

2. When new parking facilities are added and ALMS is installed, the ALMS system must be designed to deliver no less than 2.2 kVa (110/120 volt, 20-ampere) per space.

4.106.4.3 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2 shall comply with Section 4.106.4.3.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels, and hotels shall not be required to comply with this section. See *California Building Code*, Chapter 11B, for applicable requirements.

4.106.4.3.1 Location.
EVCS shall comply with at least one of the following options:

1. The charging space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code*, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2. The charging space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

   Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.3.1 and Section 4.106.4.3.2, Item 3.

4.106.4.3.2 Dimensions.
The charging spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486 mm).

2. The minimum width of each EV space shall be 9 feet (2743 mm).

3. One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

   a. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

Exception: Where the City's Municipal or Zoning Code permits parking space dimensions that are less than the minimum requirements stated in this section 4.106.4.3.2, and the compliance with which would be infeasible due to particular circumstances of a project, an exception may be granted while remaining in compliance with California Building Code Section Table 11B-228.3.2.1 and 11B-812, as applicable.

4.106.4.4 Direct current fast charging stations. One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 4.106.4.1 and 4.106.4.2. Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 1 and Level 2 spaces.

(d) **CHAPTER 5 — NONRESIDENTIAL MANDATORY MEASURES.**

5.106.5.3. Electric vehicle (EV) charging.

Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 and shall be provided in accordance with regulations in the *California Building Code* and the *California Electrical Code*. Accessible EVCS shall be provided in accordance with the *California Building Code Chapter 11B Section 11B-228.3*. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s). Calculation for spaces shall be rounded up to the nearest whole number.

Exceptions:

1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
   a. Where there is no local utility power supply.
   b. Where the local utility is unable to supply adequate power.

c. Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may increase construction cost by an average of $4,500 per parking space. EV infrastructure shall be provided up to the level that would not exceed this cost for utility service.

2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.

5.106.5.3.1 Nonresidential Occupancy Class B Offices Shared Parking Space.

5.106.5.3.1.1 New Construction. Twenty percent (20%) of parking spaces shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Thirty percent (30%) of parking spaces provided shall be Level 2 EV Capable.

5.106.5.3.1.2 Existing Buildings. When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten percent (10%) of the total number of parking spaces added or altered shall be EVCS with Level 2 EV Ready. Any existing EV Capable spaces on the building property required by the locally adopted codes at the time of building permit shall be upgraded to a minimum of Level 1 EV Ready. Upgrades shall be required at currently designated vehicle parking spaces. Upgrades shall be required for remaining parking spaces after meeting the accessibility requirements of California Building Code Chapters 11A and 11B.

5.106.5.3.2 Hotel and Motel Occupancies Shared Parking Facilities.

5.106.5.3.2.1 New Construction. Five percent (5%) of parking spaces provided shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Twenty-five percent (25%) of parking spaces provided shall be Low Power Level 2 EV Ready space. Ten percent (10%) of parking spaces provided shall be Level 2 EV Capable.

5.106.5.3.2.2 Existing Buildings. When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten percent (10%) of the total number of parking spaces added or altered shall be EVCS with Level 2 EV Ready. Any existing EV Capable spaces on the building property required by the locally adopted codes at the time of building permit shall be upgraded to a minimum of Level 1 EV Ready. Upgrades shall be required at currently designated vehicle parking spaces. Upgrades shall be required for remaining parking spaces after meeting the accessibility requirements of California Building Code Chapters 11A and 11B.

5.106.5.3.3 All Other Nonresidential Occupancies Shared Parking Facilities.

5.106.5.3.3.1 New Construction. Ten percent (10%) of parking spaces provided shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Ten percent (10%) of parking spaces provided shall be Level 2 EV Capable.

5.106.5.3.3.2 Existing Buildings. When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten percent (10%) of the total number of parking spaces added or altered shall be EVCS with Level 2 EV Ready. Any existing EV Capable spaces on the building property required by the locally adopted codes at the time of building permit shall be upgraded to a minimum of Level 1 EV Ready. Upgrades shall be required at currently designated vehicle parking spaces. Upgrades shall be required for remaining parking spaces after meeting the accessibility requirements of California Building Code Chapters 11A and 11B.

5.106.5.3.4 Direct current fast charging stations. One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 5.106.5.3.1, 5.106.5.3.2, and 5.106.5.3.3. Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 1 and Level 2 spaces.

5.106.5.4 Electric vehicle charging readiness: medium-duty and heavy-duty. [N]

Construction shall comply with Section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavy-duty EVSE. Accessible EVCS shall be provided in accordance with the *California Building Code Chapter 11B Section 11B-228.3*. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

Exceptions:

1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:

a. Where there is no local utility power supply.

b. Where the local utility is unable to supply adequate power.

c. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may increase construction cost by an average of $4,500 per parking space. EV infrastructure shall be provided up to the level that would not exceed this cost for utility service.

5.106.5.4.1 Warehouses, grocery stores and retail stores with planned off-street loading spaces.
[N] In order to avoid future demolition when adding EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel(s) shall be installed at the time of construction in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

1. The transformer, main service equipment and subpanels shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE.

2. The construction documents shall indicate one or more location(s) convenient to the planned off-street loading space(s) reserved for medium- and heavy-duty EV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s), as shown in Table 5.106.5.4.1.

3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles.

4. The raceway(s) or busway(s) shall be of sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty EVs as shown in Table 5.106.5.4.1.

TABLE 5.106.5.4.1, Raceway Conduit and Panel power Requirements for Medium-and-Heavy-Duty EVSE [N]

Building type	Building Size (sq. ft.)	Number of Off-street loading spaces	Additional capacity Required (kVa) for Raceway & Busway and Transformer & Panel
Grocery	10,000 to 90,000	1 or 2	200
		3 or Greater	400
	Greater than 90,000	1 or Greater	400
Retail	10,000 to 135,000	1 or 2	200
		3 or Greater	400
	Greater than 135,000	1 or Greater	400
Warehouse	20,000 to 256,000	1 or 2	200
		3 or Greater	400
	Greater than 256,000	1 or Greater	400

(Ord. 2032, 11/4/2024)

CHAPTER 18.31
LOCAL AMENDMENTS TO PART 6 CALIFORNIA ENERGY CODE

§ 18.31.010. Local amendments.

The City of Burlingame Adopts California Building Energy Efficiency Standards, 2022 Edition, Title 24, Part 6 of the California Code of Regulations in its full form with the following local amendments:

(a) **SUBCHAPTER 1**

ALL OCCUPANCIES — GENERAL PROVISIONS

SECTION 100.1(b) - DEFINITIONS AND RULES OF CONSTRUCTION

Section 100.1(b) is amended to add the following:

ELECTRIC HEATING APPLIANCE. A device that produces heat energy to create a warm environment by the application of electric power to resistance elements, refrigerant compressors, or dissimilar material junctions, as defined in the California Mechanical Code.

KITCHEN, INSTITUTIONAL COMMERCIAL is a kitchen dedicated to a foodservice establishment that provides meals at institutions including schools, colleges and universities, hospitals, correctional facilities, private cafeterias, nursing homes, and other buildings or structures in which care or supervision is provided to occupants.

KITCHEN, QUICK-SERVICE COMMERCIAL is a kitchen dedicated to an establishment primarily engaged in providing fast food, fast casual, or limited services. Food and drink may be consumed on premises, taken out, or delivered to the customer's location.

NET FREE AREA (NFA) is the total unobstructed area of the air gaps between louver and grille slats in a vent through which air can pass. The narrowest distance between two slats, perpendicular to the surface of both slats is the air gap height. The narrowest width of the gap is the air gap width. The NFA is the air gap height multiplied by the air gap width multiplied by the total number of air gaps between slats in the vent.

(b) **SUBCHAPTER 3**

NONRESIDENTIAL, HOTEL/MOTEL OCCUPANCIES, AND COVERED PROCESSES-MANDATORY REQUIREMENTS

SECTION 120.2 - REQUIRED CONTROLS FOR SPACE-CONDITIONING SYSTEMS

Subchapter 3 is amended to add Section 120.2(1) to be numbered, entitled, and to read as follows:

(a) - (k): Subsections 120.2(a) - (k) are adopted without modification.

(l) HVAC Hot Water Temperature. Zones that use hot water for space heating shall be designed for a hot water supply temperature of no greater than 130°F.

SECTION 120.6 - GENERAL

Subchapter 3 is amended to add Section 120.6 to be numbered, entitled, and to read as follows:

(a) - (j): Subsections 120.6(a) - (j) are adopted without modification.

(k) Mandatory requirements for commercial kitchens. Electric Readiness for Newly Constructed Commercial Kitchens shall meet the following requirements:

1. Quick-service commercial kitchens and institutional commercial kitchens shall include a dedicated branch circuit wiring and outlet that would be accessible to cookline appliances and shall meet all of the following requirements:
    a. The branch circuit conductors shall be rated at 50 amps minimum.
    b. The electrical service panel shall have a minimum capacity of 800 connected amps.
2. The electrical service panel shall be sized to accommodate an additional either 208v or 240v 50-amp breaker.

EXCEPTION 1 to Section 120.6(k): healthcare facilities.

EXCEPTION 2 to Section 120.6(k): all-electric commercial kitchens.

(c) **SUBCHAPTER 4**

NONRESIDENTIAL AND HOTEL/MOTEL OCCUPANCIES — MANDATORY REQUIREMENTS FOR LIGHTING SYSTEMS AND EQUIPMENT, AND ELECTRICAL POWER DISTRIBUTION SYSTEMS

SECTION 130.0 - LIGHTING SYSTEMS AND EQUIPMENT, AND ELECTRICAL POWER DISTRIBUTION SYSTEMS — GENERAL

Subchapter 4 is amended to read as follows:

a. The design and installation of all lighting systems and equipment in nonresidential and hotel/motel buildings, outdoor lighting, and electrical power distribution systems within the scope of Section 100.0(a), shall comply with the applicable provisions of Sections 130.0 through 130.6.

NOTE: The requirements of Sections 130.0 through 130.6 apply to newly constructed buildings. Section 141.0 specifies which requirements of Sections 130.0 through 130.6 also apply to additions and alterations to existing buildings.

SECTION 130.6 - ELECTRIC READINESS REQUIREMENTS FOR SYSTEMS USING GAS OR PROPANE

Subchapter 4 is amended to add Section 130.6 to be numbered, entitled, and to read as follows:

130.6 Electric Readiness Requirements for Systems Using Gas or Propane

Where nonresidential systems using gas or propane are installed, the construction drawings shall indicate electrical infrastructure and physical space accommodating the future installation of an electric heating appliance in the following ways, as certified by a registered design professional or licensed electrical contractor.

a) Branch circuit wiring, electrically isolated and designed to serve all electric heating appliances in accordance with manufacturer requirements and the California Electrical Code, including the appropriate voltage, phase, minimum amperage, and an electrical receptacle or junction box within five feet of the appliance that is accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors; and

b) Labeling of both ends of the unused conductors or conduit shall be with "For Future Electrical Appliance"; and

c) Reserved circuit breakers in the electrical panel for each branch circuit, appropriately labeled (e.g. "Reserved for Future Electric Range"), and positioned on the opposite end of the panel supply conductor connection; and

d) Connected subpanels, panelboards, switchboards, busbars, and transformers shall be sized to serve the future electric heating appliances. The electrical capacity requirements shall be adjusted for demand factors in accordance with the California Electric Code; and

e) Physical space for future electric heating appliances, including equipment footprint, and if needed a pathway reserved for routing of ductwork to heat pump evaporator(s), shall be depicted on the construction drawings. The footprint necessary for future electric heating appliances may overlap with non-structural partitions and with the location of currently designed combustion equipment.

(d) **SUBCHAPTER 5**

NONRESIDENTIAL AND HOTEL/MOTEL OCCUPANCIES — PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES FOR ACHIEVING ENERGY EFFICIENCY

SECTION 140.0 - PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES

Section 140.0 is amended to read as follows:

Nonresidential and hotel/motel buildings shall comply with all of the following:

a) The requirements of Sections 100.0 through 110.12 applicable to the building project (mandatory measures for all buildings).

b) The requirements of Sections 120.0 through 130.6 (mandatory measures for nonresidential and high-rise residential and hotel/motel buildings).

c) Either the performance compliance approach (energy budgets) specified in Section 140.1 or the prescriptive compliance approach specified in Section 140.2 for the Climate Zone in which the building will be located. Climate zones are shown in FIGURE 100.1-A.

NOTE to Section 140.0(c): The Commission periodically updates, publishes and makes available to interested persons and local enforcement agencies precise descriptions of the Climate Zones, which is available by zip code boundaries depicted in the Reference Joint Appendices along with a list of the communities in each zone.

NOTE to Section 140.0: The requirements of Sections 140.1 through 140.10 apply to newly constructed buildings. Section 141.0 specifies which requirements of Section 140.1 through 140.10 also apply to additions or alterations to existing buildings.

SECTION 140.1 - PERFORMANCE APPROACH: ENERGY BUDGETS

Section 140.1 is amended to read as follows:

A building complies with the performance approach provided that:

1. The time-dependent valuation (TDV) energy budget calculated for the Proposed Design Building under Subsection (b) is no greater than the TDV energy budget calculated for the Standard Design Building under Subsection (a), and

2. The source energy budget calculated for the proposed design building under Subsection (b) has a source energy compliance margin, relative to the energy budget calculated for the standard design building under Subsection (a), of at least 7 percent for all nonresidential occupancies.

   EXCEPTION 1 to 140.1 item 2. A source energy compliance margin of 0 percent or greater is required when nonresidential occupancies are designed with single zone space-conditioning systems complying with Section 140.4(a)2.

(a) - (c) Subsections 140.1 (a) - (c) are adopted without modification.

(e) **SUBCHAPTER 7**

SINGLE-FAMILY RESIDENTIAL BUILDINGS - MANDATORY FEATURES AND DEVICES

SECTION 150.0 - MANDATORY FEATURES AND DEVICES

Section 150.0 is amended as follows:

Single-family residential buildings shall comply with the applicable requirements of Sections 150(a) through 150.0(v).

NOTE: The requirements of Sections 150.0 (a) through (v) apply to newly constructed buildings. Sections 150.2(a) and 150.2(b) specify which requirements of Sections 150.0(a) through 150.0(r) also apply to additions or alterations. The amendments to sections 150.0 (t) do not apply to additions or alterations.

(a) - (s): Subsections 150.0(a) - (s) are adopted without modification.

(t) Heat pump space heater ready. Systems using gas or propane furnace to serve individual dwelling units shall include the following:

1. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the furnace and accessible to the furnace with no obstructions. The branch circuit conductors shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.

2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future heat pump space heater installation. The reserved space shall be permanently marked as "For Future 240V use."

3. A designated exterior location for a future heat pump compressor unit with either a drain or natural drainage for condensate.

(u) - (v): Subsections 150.0(u) - (v) are adopted without modification.

(f) **SUBCHAPTER 8**

SINGLE-FAMILY RESIDENTIAL BUILDINGS - PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES

SECTION 150.1 - PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES FOR SINGLE FAMILY RESIDENTIAL BUILDINGS

Section 150.1 is amended to read as follows:

(a) Section (a) is adopted without modification

(b) Performance Standards. A building complies with the performance standards if the energy consumption calculated for the proposed design building is no greater than the energy budget calculated for the standard design building using Commission-certified compliance software as specified by the Alternative Calculation Methods Approval Manual, as specified in sub-sections 1, 2 and 3 below.

1. Newly Constructed Buildings. The Energy Budget for newly constructed buildings is expressed in terms of the Energy Design Ratings, which are based on source energy and time-dependent valuation (TDV) energy. The Energy Design Rating 1 (EDR1) is based on source energy. The Energy Design Rating 2 (EDR2) is based on TDV energy and has two components, the Energy Efficiency Design Rating, and the Solar Electric Generation and Demand Flexibility Design Rating. The total Energy Design Rating shall account for both the Energy Efficiency Design Rating and the Solar Electric Generation and Demand Flexibility Design Rating. The proposed building shall separately comply with the Source Energy Design Rating, Energy Efficiency Design Rating and the Total Energy Design Rating. A building complies with the performance approach if the TDV energy budget calculated for the proposed design building is no greater than the TDV energy budget calculated for the Standard Design Building AND Source Energy compliance margin of at least 9, relative to the Source Energy Design Rating 1 calculated for the Standard Design building.

EXCEPTION 1 to Section 150.1(b)1. A community shared solar electric generation system, or other renewable electric generation system, and/or community shared battery storage system, which provides dedicated power, utility energy reduction credits, or payments for energy bill reductions, to the permitted building and is approved by the Energy Commission as specified in Title 24, Part 1, Section 10-115, may offset part or all of the solar electric generation system Energy Design Rating required to comply with the Standards, as calculated according to methods established by the Commission in the Residential ACM Reference Manual.

EXCEPTION 2 to Section 150.1(b)1. A newly constructed building with a conditioned floor area less than 1,500 square feet shall achieve a Source Energy compliance margin of 4 or greater, relative to the Source Energy Design Rating 1 calculated for the Standard Design building.

EXCEPTION 3 to Section 150.1(b)1. If a newly constructed building with a conditioned floor area less than 625 square feet demonstrates that due to conditions specific to the project it is technically infeasible to achieve compliance, the Building Official may reduce the compliance margin to between 0 and 4.

2. Additions and Alterations to Existing Buildings. The Energy Budget for additions and alterations is expressed in terms of TDV energy.

3. Section (b)(3) is adopted without modification.

(c) Section (c) is adopted without modification.

(g) **SUBCHAPTER 10**

MULTIFAMILY BUILDINGS-MANDATORY REQUIREMENTS

SECTION 160.4 MANDATORY REQUIREMENTS FOR WATER HEATING SYSTEMS

Section 160.4 is amended to remove subsection (a) as follows:

(a) Reserved.

Sections (b) to (f) are adopted without amendments.

SECTION 160.9 MANDATORY REQUIREMENTS FOR ELECTRIC READY BUILDINGS

Section 160.9 Sections (a) to (c) are adopted without amendments. Sections (d) through (f) are added as follows:

(a) - (c): Subsections 160.9(a) - (c) are adopted without modification.

(d) **Individual Heat Pump Water Heater Ready.** Systems using gas or propane water heaters to serve individual dwelling units shall include the following components and shall meet the requirements of Section 160.9(f):

1. A dedicated 125 volt, 20 amp electrical receptacle that is connected to the electric panel with a 120/240 volt 3 conductor, copper branch circuit rated to 30 amps, within 3 feet from the water heater and accessible to the water heater with no obstructions. In addition, all of the following:

A. Both ends of the unused conductor shall be labeled with the word "spare" and be electrically isolated; and

B. A reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit in A above and labeled with the words "Future 240V Use";

2. A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance,

3. The construction drawings shall indicate the location of the future heat pump water heater. The reserved location shall have minimum interior dimensions of 39"x39"x96"

4. A ventilation method meeting one of the following:

A. The designed space reserved for the future heat pump water heater shall have a minimum volume of 700 cubic feet; or

B. The designed space reserved for the future heat pump water heater shall vent to a communicating space in the same pressure boundary via permanent openings with a minimum total net free area of 250 square inches so that the total combined volume connected via permanent openings is 700 cu. ft. or larger. The permanent openings shall be:

i. Fully louvered doors with fixed louvers consisting of a single layer of fixed flat slats; or

ii. Two permanent fixed openings, consisting of a single layer of fixed flat slat louvers or grilles, one commencing within 12 inches from the top of the enclosure and one commencing within 12 inches from the bottom of the enclosure.

C. The designed space reserved for the future heat pump water heater shall include two 8" capped ducts, venting to the building exterior:

i. All ducts, connections and building penetrations shall be sealed.

ii. Exhaust air ducts and all ducts which cross pressure boundaries shall be insulated to a minimum insulation level of R-6

iii. Airflow from termination points shall be diverted away from each other.

(e) **Central Heat Pump Water Heater Electric Ready.** Central water heating systems using gas or propane to serve multiple dwelling units shall include the following:

1. The system input capacity of the gas or propane water heating system shall be determined as the sum of the input gas or propane capacity of all water heating devices associated with each gas or propane water heating system.

2. Space reserved shall include:

A. Heat Pump. The minimum space reserved shall include space for service

clearances and air flow clearances and shall meet one of the following:

i. If the system input capacity of the gas water heating system is less than 200,000 BTU per hour, the minimum space reserved for the heat pump shall be 2.0 square feet per input 10,000 BTU per hour of the gas or propane water heating system, and the minimum linear dimension of the space reserved shall be 48 linear inches.

ii. If the system input capacity of the gas water heating system is greater than or equal to 200,000 BTU per hour, the minimum space reserved for the heat pump shall be 3.6 square feet per input 10,000 BTU per hour of the gas or propane water heating system, and the minimum linear dimension of the space reserved shall be 84 linear inches.

iii. The space reserved shall be the space required for a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project.

B. Tanks. The minimum space reserved shall include space for service clearances and shall meet one of the following:

i. If the system input capacity of the gas water heating system is less than 200,000 BTU per hour, the minimum space reserved for the storage and temperature maintenance tanks shall be 4.4 square feet per input 10,000 BTU per hour of the gas or propane water heating system.

ii. If the system input capacity of the gas water heating system is greater than or equal to 200,000 BTU per hour, the minimum physical space reserved for the storage and temperature maintenance tanks shall be 3.1 square feet per input 10,000 BTU per hour of the gas or propane water heating system.

iii. The space reserved shall be the space required for a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project.

3. Ventilation shall be provided by meeting one of the following:

A. Physical space reserved for the heat pump shall be located outside, or

B. A pathway shall be reserved for future routing of supply and exhaust air via ductwork from the reserved heat pump location to an appropriate outdoor location. Penetrations through the building envelope for louvers and ducts shall be planned and identified for future use. The reserved pathway and penetrations through the building envelope shall be sized to meet one of the following:

i. If the system input capacity of the gas water heating system is less than 200,000 BTU per hour, the minimum air flow rate shall be 70 CFM per input 10,000 BTU per hour of the gas or propane water

heating system and the total external static pressure drop of ductwork and louvers shall not exceed 0.17 inch when the future heat pump water heater is installed.

ii. If the system input capacity of the gas water heating system is greater than or equal to 200,000 BTU per hour, the minimum air flow rate shall be 420 CFM per input 10,000 BTU per hour of the gas or propane water heating system and the total external static pressure drop of ductwork and louvers shall not exceed 0.17 inch when the future heat pump water heater is installed.

iii. The reserved pathway and penetrations shall be sized to serve a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project.

4. Condensate drainage piping. An approved receptacle that is sized in accordance with the California Plumbing Code to receive the condensate drainage shall be installed within 3 feet of the reserved heat pump location, or piping shall be installed from within 3 feet of the reserved heat pump location to an approved discharge location that is sized in accordance with the California Plumbing Code, and meets one of the following:

A. If the system input capacity of the gas water heating system is less than 200,000 BTU per hour, condensate drainage shall be sized for 0.2 tons of refrigeration capacity per input 10,000 BTU per hour.

B. If the system input capacity of the gas water heating system is greater than or equal to 200,000 BTU per hour, condensate drainage shall be sized for 0.7 tons of refrigeration capacity per input 10,000 BTU per hour.

C. Condensate drainage shall be sized to serve a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project.

5. Electrical.

A. Physical space shall be reserved on the bus system of the main switchboard or on the bus system of a distribution board to serve the future heat pump water heater system including the heat pump and temperature maintenance tanks. In addition, the physical space reserved shall be capable of providing adequate power to the future heat pump water heater as follows:

i. Heat Pump. For the Heat Pump, the physical space reserved shall comply with one of the following:

A. If the system input capacity of the gas water heating system is less than 200,000 BTU per hour, provide 0.1 kVA per input 10,000 BTU per hour.

B. If the system input capacity of the gas water heating system is greater than or equal to 200,000 BTU per hour, provide 1.1 kVA per input 10,000 BTU per hour.

C. The physical space reserved supplies sufficient electrical power required to power a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project.

ii. Temperature Maintenance Tank. For the Temperature Maintenance Tank, the physical space reserved shall comply with one of the following:

A. If the system input capacity of the gas water heating system is less than 200,000 BTU per hour, provide 1.0 kVA per input 10,000 BTU per hour.

B. If the system input capacity of the gas water heating system is greater than or equal to 200,000 BTU per hour, provide 0.6 kVA per input 10,000 BTU per hour.

C. The physical space reserved supplies sufficient electrical power required to power a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project.

(f) The building electrical system shall be sized to meet the future electric requirements of the electric ready equipment specified in sections 160.9 a — e. To meet this requirement the building main service conduit, the electrical system to the point specified in each subsection, and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each electric ready appliance in accordance with the California Electric Code.

(h) **SUBCHAPTER 11**

MULTIFAMILY BUILDINGS - PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES

SECTION 170.1 — PERFORMANCE APPROACH

Section 170.1 is adopted with amendments as follows:

A building complies with the performance approach if the TDV energy budget calculated for the proposed design building under Subsection (b) is no greater than the TDV energy budget calculated for the Standard Design Building under Subsection (a). Additionally,

1. The energy budget, expressed in terms of source energy, of a newly constructed low-rise multifamily building (three habitable stories or less) shall be at least 10 percent lower than that of the Standard Design Building.

2. Newly Constructed high-rise multifamily buildings (greater than four habitable stories) shall be at least 4 percent lower than that of the Standard Design Building.

Sub-sections (a) to (d) are adopted without amendments.
(Ord. 2032, 11/4/2024)