DRAFT 8/20/25AMA

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE TO AMEND CHAPTER 16.52 (FIRE CODE) OF TITLE 16 (BUILDINGS AND CONSTRUCTION) OF THE SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE THE 2025 CALIFORNIA FIRE CODE WITH LOCAL AMENDMENTS AND RELATED FINDINGS

WHEREAS, the International Fire Code ("IFC") is a model fire code that regulates minimum fire safety requirements for new and existing buildings, facilities, storage and processes; and

WHEREAS, the IFC is in use or adopted in 42 states and is published every three years by the International Code Council; and

WHEREAS, in California, the California Building Standards Commission ("CSBC") is responsible for administering the implementation of the California building codes, and adopts the IFC with new statewide amendments every three years; and

WHEREAS, this adopted code is known as the California Fire Code ("CFC") and is found in Part 9 of Title 24 of the California Code of Regulations, and Title 24 is commonly referred to as the California Building Standards Code; and

WHEREAS, the State of California adopted the 2025 California Fire Code in February 2025, and published the documents on July 1, 2025; and

WHEREAS, all local jurisdictions are required to hold public hearings and adopt the CFC with any local amendments by January 1, 2026, or accept by default the version adopted by the State; and

WHEREAS, local amendments to the CFC must be supported with findings that are based on unique local climatic, geologic and topographic conditions of the area; and

WHEREAS, the City of Sunnyvale desires to amend Chapter 16.52 (Fire Code) of the Sunnyvale Municipal Code to adopt the California Fire Code with local amendments for implementation on January 1, 2026.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. CHAPTER 16.52 AMENDED. Chapter 16.52 (Fire Code) of Title 16 (Buildings and Construction) of the Sunnyvale Municipal Code is hereby amended to read as follows:

Chapter 16.52

FIRE CODE

16.52.010. Title.
16.52.020. Adoption by reference.
16.52.030. Fire district designated.
16.52.040. Hazardous materials.
16.52.050. Duties are discretionary.
16.52.060. Referenced codes.
16.52.101. Scope and administration.
16.52.103. Department of fire prevention.
16.52.104. General authority and responsibilities.
16.52.105. Permits.
16.52.~~107~~108 Fees. [Renumbered]
16.52.~~108~~109. Inspections. [Renumbered]
16.52.~~109~~110. Maintenance. [Renumbered]
16.52.~~111~~112. ~~Board~~ Means of appeals. [Renumbered]
16.52.~~112~~113. Violations. [Renumbered]
16.52.~~114~~115. Unsafe ~~buildings~~ structures or equipment. [Renumbered]
16.52.~~113~~114 Stop work or use order. [Renumbered]
16.52.202. General definitions.
16.52.315. General storage.
16.52.401. Emergency planning and preparedness.
16.52.403. Emergency preparedness requirements.
16.52.405. Emergency evacuation drills.
16.52.503. Fire apparatus access roads.
16.52.504. Access to building openings and doors.
16.52.505. Premises identification.
16.52.507. Fire protection water supplies.
16.52.508. Fire command center.
16.52.510. Emergency responder ~~radio coverage~~communications enhancement systems.
16.52.511. Firefighter air replenishment systems.
16.52.512. High rise building emergency helicopter landing facility.
16.52.605 Fuel-fired appliances.
16.52.~~603~~4103. ~~Electrical equipment, wiring and hazards~~Temporary heating and cooking operations. [Renumbered]

16.52.608. Mechanical refrigeration.
16.52.703. Penetrations
16.52.901. Fire protection systems.
16.52.903. Automatic sprinkler systems.
16.52.904. Alternative automatic fire-extinguishing systems.
16.52.905. Standpipe systems.
16.52.909 Smoke control systems.
16.52.912. Fire department connections.
16.52.913. Fire pumps.
~~**16.52.914. Fire protection based on special detailed requirements of use and occupancy.**~~
16.52.1011. Stairways.
16.52.~~1031~~1032. Maintenance of means of egress. [Renumbered]
16.52.1103. Fire safety requirements for existing buildings.
16.52.1202 Definitions
16.52.1203 Emergency and standby power systems.
16.52.1207 Electrical Energy Storage Systems (ESS).
16.52.2311. Repair garages.
16.52.~~3304~~3303. ~~Precautions against fire~~Administrative safety controls. [Renumbered]
16.52.~~3311~~3307. ~~Means of egress~~Fire department site access and water supply. [Renumbered]
16.52.5001. Hazardous materials: general.
16.52.5003. Hazardous materials: general requirements.
16.52.5004. Hazardous materials: storage.
16.52.5601. Explosives and fireworks.
16.52.5704. Flammable and combustible liquids.
16.52.5706. Special operations.
16.52.5707. On-demand mobile fueling.
16.52.5809 Mobile gaseous fueling of hydrogen vehicles.
16.52.6004. Highly toxic and toxic compressed gases.
16.52.6405. Pyrophoric materials.
16.52.7000. Modifications.
16.52.7100. Flow requirements for buildings.
16.52.7500. Fire hydrant spacing.
16.52.8101. Fire apparatus and access roads.
16.52.8102. Required access.
16.52.8103. Minimum specifications.
16.52.8104. Aerial fire apparatus access roads.
16.52.8105. Multi-family residential developments.
16.52.9000. Firefighter air replenishment systems.
~~**16.52.9080. Reference Standards**~~

16.52.010. Title. [Text unchanged]

16.52.020. Adoption by reference.

The "~~2021~~ 2024 International Fire Code" in its entirety, along with Appendices B, C, D, E, F, G, H, I, L, N, ~~O~~ P as published by the International Code Council, Inc., and amendments to sections of the ~~2021~~2024 International Fire Code adopted by the State Building Standards Commission in California Code of Regulations (CCR) Title 24, Part 9 known as the ~~2022~~ 2025 California Fire Code; is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the Fire Code of the city of Sunnyvale.

16.52.030 – 16.52.060 [Text unchanged.]

16.52.101. – 16.52.104 [Text unchanged.]

16.52.105. Permits.

(a) – (d) [Text unchanged.]

(e) Conditions of a permit.
California Fire Code Section 105.3 is hereby amended to read:

[A] 105.3 Conditions of a permit. The *fire code official* may condition any permit, increasing or decreasing the scope of activity, and/or specifying fire safety provisions in addition to those established by this code, if the *fire code official* deems such conditions necessary to provide reasonable public safety.

A permit shall constitute permission to maintain, store or handle materials; or to conduct processes which produce conditions hazardous to life or property; or to install equipment utilized in connection with such activities; or to install or modify any fire protection system or equipment or any other construction, equipment installation or modification in accordance with the provisions of this code where a permit is required by Section ~~105.6 or 105.7~~105.5 or 105.6. Such permission shall not be construed as authority to violate, cancel or set aside any of the provisions of this code or other applicable regulations or laws of the jurisdiction.

(f) – (j) [Text unchanged.]

(k) Revocations, suspensions and denials of requests to renew permits.
California Fire Code Section 105.4 is hereby amended by adding Sections 105.4.1 through 105.4.2.6 to read:

[A] 105.4.1 Nonemergency revocations, suspensions and denials of requests to renew permit. [Text unchanged.]

105.4.1.1 Notification. [Text unchanged.]

105.4.1.2 Requesting a hearing. [Text unchanged.]

105.4.1.3 Hearing. [Text unchanged.]

105.4.1.4 Final decision. [Text unchanged.]

105.4.1.5 Further appeals. [Text unchanged.]

105.4.2 Emergency revocations, suspensions and denials of requests to renew permits. [Text unchanged.]

105.4.2.1 Surrendering permits. [Text unchanged.]

105.4.2.2 Suspending activities. [Text unchanged.]

105.4.2.3 Requesting an appeal. [Text unchanged.]

105.4.2.4 Hearing. [Text unchanged.]

105.4.2.5 Final decision. [Text unchanged.]

105.4.2.6 Further appeals. Further appeals shall be in accordance with Section 112~~108~~ of this code.

(l) Carnivals and fairs.
California Fire Code Section 105~~.6.4~~5.5 is hereby amended to read:

[A] 105.~~6.4~~5.5 Carnivals and fairs. An operational permit is required to conduct a carnival, fair or outdoor assembly event. See also 105.~~38~~.5.40, Outdoor Assembly Event.

(m) - (n) [Text unchanged.]

(o) Outdoor assembly event.
California Fire Code Section 105.5.~~38~~ 40 is hereby amended to read as follows:

105.5.~~38~~ 40 Outdoor assembly event. An operational [Renumbered, text unchanged.]

(p) – (q) [Text unchanged.]

(r) Miscellaneous combustible storage.
California Fire Code Section 105.5.~~31~~ 33 is hereby amended to read:

[A] 105.5.~~31~~ 33 Miscellaneous combustible storage. [Renumbered, text unchanged.]

(s) Lithium batteries.
California Fire Code Section 105.~~6.53~~5.29 is hereby amended to read:

105.~~6.53~~5.29 Lithium batteries. [renumbered, text unchanged.]

(t) Child-care center.
California Fire Code Section 105.5.~~55~~ 60 is hereby amended to read as follows:

105.5.~~55~~60 Child-care center. [Renumbered, text unchanged.]

(u) Emergency responder ~~radio coverage~~communications enhancement system

California Fire Code Section 105.5.~~56~~ 61 is hereby amended to read as follows:

105.5.~~56~~ 61 Emergency responder ~~radio coverage~~ communications enhancement system. An operational permit is required to maintain an emergency responder radio coverage system in accordance with Section 510.

(v) Firefighter air replenishment system.

California Fire Code Section 105.5.~~57~~ 62 is hereby amended to read as follows:

10.5.~~57~~62 Firefighter air replenishment system. [Renumbered, text unchanged.]

(w) Group home.

California Fire Code Section 105.5.~~58~~ 63 is hereby amended to read as follows:

105.5.~~58~~63 Group home. [Renumbered, text unchanged.]

(x) Hazardous material stabilization.

California Fire Code Section 105.5.~~59~~ 64 is hereby amended to read as follows:

105.5.~~59~~64 Hazardous material stabilization. [Renumbered, text unchanged.]

(y) Helicopter lifts.

California Fire Code Section 105.5.~~60~~ 65 is hereby amended to read as follows:

105.5.~~60~~65 Helicopter lifts. [Renumbered, text unchanged.]

(z) Hospitals and psychiatric hospitals.

California Fire Code Section 105.5.~~61~~ 66 is hereby amended to read as follows:

105.5.~~61~~66 Hospitals and psychiatric hospitals. [Renumbered, text unchanged.]

(aa) Residential care facility for the elderly.

California Fire Code Section 105.5.~~62~~ 67 is hereby amended to read as follows:

105.5.~~62~~67 Residential care facility for the elderly. [Renumbered, text unchanged.]

(bb) Residential care facility for the chronically ill.

California Fire Code Section 105.5.~~63~~ 68 is hereby amended to read as follows:

105.5.~~63~~ 68 Residential care facility for the chronically ill. [Renumbered, text unchanged.]

(cc) Temporary assembly occupancy.

California Fire Code Section 105.5.~~64~~ 69 is hereby amended to read as follows:

105.5.~~64~~69 Temporary assembly occupancy. [Renumbered, text unchanged.]

(dd) Fire fighter air replenishment system.

California Fire Code Section 105.6.~~25~~ 26 is hereby amended as follows:

105.6.~~25~~ 26 Firefighter air replenishment system. [Renumbered, text unchanged.]

16.52.~~107~~108. Fees. [Renumbered, text unchanged.]

California Fire Code Section ~~107~~ 108 is hereby amended to read:

[A] ~~107~~108.1 Fees. [Renumbered, text unchanged.]

[A] ~~107~~108.2 Schedule of permit fees. [Renumbered, text unchanged.]

[A] ~~107.3~~108.5 Related fees. [Renumbered, text unchanged.]

~~107.4~~108.6 Refunds. [Renumbered, text unchanged.]

16.52.~~108~~109. Inspections. [Renumbered, text unchanged.]

(a) Special inspections.

California Fire Code Section ~~108~~109.5 is hereby amended to read:

~~108~~109.5 Special inspections. [Renumbered, text unchanged.]

16.52.~~109~~110. Maintenance. [Renumbered, text unchanged.]

(a) Overcrowding.

California Fire Code Section ~~109~~110.6 is hereby amended to read:

[A] ~~109~~110.6 Overcrowding. [Renumbered, text unchanged.]

(b) Hazard abatement.

California Fire Code is hereby amended by adding Section ~~109~~110.7 to read:

~~109~~110.7 Hazard abatement. [Renumbered, text unchanged.]

16.52.~~111~~112. ~~Board~~ Means of appeals.
California Fire Code Section 111.1.1 is hereby amended to read:

111.1.1 Appeals. The Office of the City Clerk maintains guidelines and procedures for the Board of Appeals. The city council shall serve as the Board of Appeals.

16.52.~~112~~113. Violations. [Renumbered, text unchanged.]

(a) Unlawful acts.
California Fire Code Section ~~112~~113.1 is hereby amended to read as follows:

[A] ~~112~~113.1 Unlawful acts. [Renumbered, text unchanged.]

(b) Violation penalties.
California Fire Code Section ~~112~~113.4 is hereby amended to read:

[A] ~~112~~113.4 Violation penalties. [Renumbered, text unchanged.]

(c) Civil penalties.
California Fire Code Section ~~110~~113.4.2 is hereby amended by adding Section ~~109~~113.4.2 to read:

110.4.2 Civil penalties. [Renumbered, text unchanged.]

16.52.~~113~~114. Stop work or use order. [Renumbered, text unchanged.]

(a) Order.
California Fire Code Section ~~113~~114.1 is hereby amended to read:

[A] ~~113~~114.1 Order. [Renumbered, text unchanged.]

(b) Issuance.
California Fire Code Section ~~113~~114.2 is hereby amended to read:

[A] ~~113~~114.2 Issuance. [Renumbered, text unchanged.]

(c) Emergencies.
California Fire Code Section ~~113~~114.3 is hereby amended to read:

[A] ~~113~~114.3 Emergencies. [Renumbered, text unchanged.]

(d) Failure to comply.
California Fire Code Section ~~113~~114.4 is hereby amended to read:

[A] ~~113~~114.4 Failure to comply. [Renumbered, text unchanged.]

16.52.~~114~~115. Unsafe ~~buildings~~structures or equipment.

(a) General.
California Fire Code Sections ~~114~~115.1—~~114~~115.1.2 are hereby amended to read:

[A] ~~114~~115.1 General. [Renumbered, text unchanged.]

[A] ~~114~~115.1.1 Unsafe conditions. [Renumbered, text unchanged.]

[A] ~~114~~115.1.2 Structural hazards. [Renumbered, text unchanged.]

(b) Notification.
California Fire Code Section ~~114.5~~115.4 is hereby amended to read:

~~114.5~~115.4 Notification. [Renumbered, text unchanged.]

16.52.202. General definitions.
California Fire Code Section 202 is hereby amended by adding and amending the following definitions:

BONFIRE. [Text unchanged.]

CORROSIVE LIQUID. [Text unchanged.]

FIRE CHIEF. [Text unchanged.]

FIRE DEPARTMENT. [Text unchanged.]

FIREFIGHTER AIR REPLENISHMENT SYSTEM (FARS). [Text unchanged.]

~~**LARGE SCALE FIRE TESTING.** Testing a representative energy storage system that induces a significant fire into the device under test and evaluates whether the fire will spread to adjacent energy system units, surrounding equipment, or through an adjacent fire resistance-rated barrier.~~

~~**MODERATELY TOXIC GAS.** A chemical or substance that has a median lethal concentration (LC50) in air more than 2000 parts per million but not more than 5000 parts per million by volume of gas or vapor, when administered by continuous inhalation for an hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.~~

HEALTH HAZARD – OTHER. [Text unchanged.]

LARGE SCALE FIRE TESTING. [Text unchanged.]

MODERATELY TOXIC GAS. [Text unchanged.]

SECONDARY CONTAINMENT. [Text unchanged.]

SPILL CONTROL. [Text unchanged.]

WORKSTATION. [Text unchanged.]

16.52.315. General storage. [Text unchanged.]

16.52.401. Emergency planning and preparedness. [Text unchanged.]

16.52.403. Emergency preparedness requirements. [Text unchanged.]

16.52.405. Emergency evacuation drills. [Text unchanged.]

16.52.503. Fire apparatus access roads. [Text unchanged.]

16.52.504. Access to building openings and doors. [Text unchanged.]

16.52.505. Premises identification. [Text unchanged.]

16.52.507. Fire protection water supplies. [Text unchanged.]

16.52.508. Fire command center.

(a) Location and access. [Text unchanged.]

(b) Required features.
California Fire Code Section 508.1.6 is hereby amended to read:

508.1.6 Required features. The *fire command center* shall comply with NFPA 72 and shall contain the following features:

1-11[Text unchanged.]

12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, firefighter air-replenishment systems, firefighting equipment and fire department access, and the location of fire walls, fire barriers, fire partitions, smoke barriers~~, *means of egress, fire protection systems*, fire-fighting equipment and fire department access, and the location of *fire walls, fire barriers, fire partitions, smoke barriers*~~ and smoke partitions.

13. An *approved* Building Information Card that contains, but is not limited to, the following information:

13.1 General building information that includes: property name, address, the number of floors in the building above and below grade, use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), estimated building population during the day, night and weekend. ~~(i.e., day, night, weekend);~~

13.2 Building emergency contact information that includes: a list of the building's emergency contacts including but not limited to building

manager, building engineer ~~(e.g., building manager, building engineer, etc.)~~ and their respective work phone number, cell phone number, and e-mail address. ~~;~~

13.3 Building construction information that includes: the type of building construction including but not limited to floors, walls, columns and roof assembly. ~~(e.g., floors, walls, columns, and roof assembly);~~

13.4 Exit stair information that includes: number of exit stairs in the building, each exit stair designation and floors served, location where each exit stair discharges, exit stairs that are pressurized, exit stairs provided with emergency lighting, each exit stair that allows reentry, exit stairs providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve, location of elevator machine rooms, location of sky lobby, location of freight elevator banks. ~~;~~

13.5 Building services and system information that includes: location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator, location of natural gas service. ~~;~~

13.6 *Fire protection system* information that includes: locations of standpipes, location of fire pump room, location of fire department connections, location of firefighter air replenishment system features and stations, location of emergency responder radio system controller, floors protected by *automatic sprinklers*, location of different types of *automatic sprinkler systems* installed (e.g., dry, wet, pre-action,tc.); and

13.7 Hazardous material information that includes: location of hazardous material, quantity of hazardous material.

14-18 [Text unchanged]

19. A master switch for unlocking elevator lobby doors permitted by Section ~~1008.1.4.6~~1010.2.12.1.

~~20. On-site fire protection water tank fill valve control switch, tank level indicators, tank low-level alarm, and tank fill signal.~~

~~21.~~20. Building security system controls and related equipment. [renumbered, text unchanged.]

~~22.~~21. All control panels shall be permanently identified in an approved manner as to function. [renumbered, text unchanged.]

~~23.~~22. Other fire protection equipment and system controls as required by the fire code official. [renumbered, text unchanged.]

Fire command centers shall not be used for the housing of any boiler, heating unit, generator, combustible storage, or similar hazard.

(c) Ventilation.
California Fire Code Section 508.1.~~7~~8 is hereby amended to read:

508.1.~~8~~7 Ventilation. [Renumbered, text unchanged.]

16.52.510. Emergency responder communications enhancement systems ~~radio coverage~~.

(a) Emergency responder communications enhancement systems ~~radio coverage~~ in new buildings.
California Fire Code Section 510.1 is hereby amended to read:

510.1 Emergency responder ~~radio coverage~~communications enhancement systms in new buildings. Approved in-building emergency responder communications enhancement system (ERCES) ~~radio coverage~~ for emergency responders shall be provided within all buildings meeting any one of the following conditions:

1.-4. [Text unchanged.]

Exceptions:

1.-4. [Text unchanged.]

The emergency responder communications enhancement system ~~radio coverage system~~ shall be installed and maintained in accordance with Sections 510.4 through 510.6 of this code and with the applicable provisions of NFPA ~~1221~~1225, Standard for ~~the Installation, Maintenance and Use of~~ Emergency Services Communications ~~Systems~~.

The coverage shall be based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

(b) Obstruction by new buildings. [Text unchanged.]

(c) Permit required.
California Fire Code Section 510.3 is hereby amended to read:

510.3 Permit required. A construction permit, for the installation of, or modification of, emergency responder ~~radio coverage~~communications enhancement systems and related equipment is required as specified in Section ~~105.7.6~~105.6.5. Maintenance performed in accordance with this code is not considered a modification and does not require a permit. A frequency change made to an existing system is considered to be new construction and will require a construction permit.

An operational permit is required to maintain an emergency responder radio

coverage system as specified in Section 105.5.

(d) SVRIA system registration. [Text unchanged.]

(e) Technical requirements.

California Fire Code Section 510.4 is amended to read:

510.4 Technical requirements. Systems, components and equipment required under this section to provide the emergency responder radio coverage system shall comply with Emergency Responder ~~Radio Coverage~~Communications Enhancement System Standards and Policies currently promulgated and in effect by the Sunnyvale Department of Public Safety.

(f) Installation requirements.
California Fire Code Section 510.5 is amended to read:

510.5 Installation requirements. The installation of the emergency responder radio coverage system shall be in accordance with NFPA ~~1221~~ 1225 and the current Emergency Responder Communications Enhancement System~~Radio Coverage~~ Standards and Policies currently promulgated and in effect by the Sunnyvale Department of Public Safety.

16.52.511. Firefighter air replenishment systems. [Text unchanged.]

16.52.512. High rise building emergency helicopter landing facility. [Text unchanged.]

16.52.~~6034~~4106. ~~Electrical equipment, wiring and hazards~~Temporary heating and cooking operations.

(a) Immersion heaters.
California Fire Code Section ~~603 of Subsection 603.11~~4106 is hereby amended to read:

~~603.11~~ 4106.1 Immersion heaters. All electrical immersion heaters used in dip tanks, sinks, vats and similar operations shall be provided with *approved* over-temperature controls and low liquid level electrical disconnects. Manual reset of required protection devices shall be provided.

16.52.605. Fuel-fired appliances. [Text unchanged.]

16.52.608. Mechanical refrigeration. [Text unchanged.]

16.52.703. Penetrations. [Text unchanged.]

16.52.901. Fire protection systems. [Text unchanged.]

16.52.903. Automatic sprinkler systems.

(a) [Text unchanged.]

(b) Residential sprinkler systems.

California Fire Code Section 903.1 is hereby amended by adding Section 903.1.2 to read:

903.1.2 Residential sprinkler systems. Fire sprinkler systems in residential occupancies as required by California Residential Code Section ~~R313~~ R309 shall be regulated under the authority of the *fire code official*.

(c) Where required.

California Fire Code Section 903.2 is hereby amended to read:

903.2 Where required. Approved automatic sprinkler systems in new and existing buildings and structures shall be provided in the locations described in this Section or in Sections 903.2.1 through 903.2.12 and Sections 903.2.14 through 903.2.21, whichever is the more restrictive.

Exception: Group S-2 or U occupancies used exclusively for vehicle parking and which meet all of the following:

a. Noncombustible construction.

b. Maximum building area not to exceed 5,000 square feet.

c. Structure is open on three or more side.

d. Minimum of 10 feet separation from existing buildings unless area is separated by fire walls complying with California Building Code 706.

For the purposes of this Section, firewalls and fire barriers used to separate building areas shall be constructed in accordance with the California Building Code and shall be without openings or penetrations.

1.-5. [Text unchanged.]

6. An automatic sprinkler system shall be provided in all accessible combustible and noncombustible sub-floors, attic space, or areas above ceilings, which are greater than 6 inches (152.4 mm) in height and contain electrical or mechanical components, in a fire sprinklered structure.

Exceptions:

1. NFPA 13D systems shall comply with California Residential Code ~~R313~~ R309 and local standards.
2. The fire code official may permit the use of smoke detection in lieu of fire sprinklers in noncombustible and non-assessable floor spaces and when construction materials do not exceed a flame spread rating of 25.

7.-8. [Text unchanged.]

(d) Chemical Fume Hood Fire Protection. [Text unchanged.]

(e) NFPA 13 sprinkler systems. [Text unchanged.]

(f) NFPA 13R sprinkler systems. [Text unchanged.]

(g) Floor control valves.

California Fire Code Section 903.3.~~9~~ 10 is hereby amended to read:

903.3.~~9~~10 Floor control valves. [Renumbered, text unchanged.]

(h) Riser shut-off valve.

California Fire Code Section 903.3 is hereby amended by adding Section 903.3.~~10~~ 11 to read:

903.3.~~10~~ 11 Riser shut-off valve. [Renumbered, text unchanged.]

(i) Corrosion-resistant paint.

California Fire Code Section 903.3.~~11~~ 12 is hereby amended to read:

903.3.~~11~~ 12 Corrosion-resistant paint. [Renumbered, text unchanged.]

(j) Floor control valves.

California Fire Code Section 903.4.~~3~~ 4 is hereby amended to read:

903.4.~~3~~ 4 Floor control valves. [Renumbered, text unchanged.]

16.52.904. Alternative automatic fire extinguishing systems. [Text unchanged.]

16.52.905. Standpipe systems. [Text unchanged.]

16.52.909. Smoke control systems. [Text unchanged.]

16.52.912. Fire department connections. [Text unchanged.]

16.52.913. Fire pumps. [Text unchanged.]

16.52.1011. Stairways. [Text unchanged.]

16.52.1032. Maintenance of the means of egress. [Text unchanged.]

16.52.1103. Fire safety requirements for existing buildings.

(a) Emergency responder ~~radio coverage~~communications enhancement in existing buildings.

California Fire Code Section 1103.2 is hereby amended to read:

1103.2 Emergency responder ~~radio coverage~~ communications enhancement in existing buildings. Existing buildings other than Group R-3, that do not have *approved* ~~radio coverage~~ communications enhancement for emergency responders within the building shall be equipped with such system or coverage within a timeframe established by the *fire code official.*

1.-2. [Text unchanged.]

3. When determined by the *fire code official* that buildings, classes of buildings or specific occupancies do not have minimum ~~radio coverage~~communications enhancement signal strength levels and pose an undue risk to emergency responders that cannot be reasonably mitigated by other means.

Exception: Where it is determined by the *fire code official* that the ~~radio coverage~~communications enhancement system is not needed.

16.52.1202. Definitions. [Text unchanged.]

16.52.1203. Emergency and standby power systems. [Text unchanged.]

16.52.1207. Electrical Energy Storage Systems (ESS).

(a) Large-scale fire test.
California Fire Code Section 1207.1.~~5~~ 7 is hereby added to read:

1207.1.5 Large-scale fire test. Where required elsewhere in Section 1207, large-scale fire testing shall be conducted in accordance with NFPA 855, and UL 9540A. The testing shall be conducted or witnessed and reported by an approved testing laboratory and show that a fire involving one ESS will not propagate to an adjacent ESS, and where installed within buildings, enclosed areas and walk-in units will be contained within the room, enclosed area or walk-in unit for a duration equal to the fire-resistance rating of the room separation specified in Section 1207.7.4. The test report shall be provided to the fire code official for review and approval in accordance with Section 104.~~8~~2.2.

(b)-(c) Maximum allowable quantities. [Text unchanged.]

(d) Fire suppression systems.
California Fire Code Section 1207.5.5 is hereby added to read:

1207.5.5 Fire suppression systems. Rooms and areas within buildings and walk-in units containing electrochemical ESS shall be protected by an automatic fire suppression system designed and installed in accordance with one of the following:

1.-2. [Text unchanged.]

3. The following alternative automatic fire-extinguishing systems designed and installed in accordance with Section 904, provided that the installation is approved by the fire code official based on large-scale fire testing complying with Section 1207.1.~~5~~7:

3.1. NFPA 12, *Standard on Carbon Dioxide Extinguishing Systems.*

3.2. NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection.*

3.3. NFPA 750, *Standard on Water Mist Fire Protection Systems.*

3.4. NFPA 2001, *Standard on Clean Agent Fire-Extinguishing Systems*.

3.5. NFPA 2010, *Standard for Fixed Aerosol Fire-Extinguishing Systems*.

Exception: [Text unchanged.]

(e)-(f) [Text unchanged.]

16.52.2311. Repair garages. [Text unchanged.]

16.52.~~3305~~3303. ~~Precautions against fire~~Administrative safety controls.

(a) Fire watch. [Text unchanged.]

(b) Fire walls.
California Fire Code Section ~~3305.9~~3303.7 is hereby amended to read:

~~3305.9~~3303.7 Fire walls. [Renumbered, text unchanged.]

16.52.~~3311~~3307. ~~Means of Egress~~Fire department site access and water supply.

(a) Stairways required.
California Fire Code Section ~~3312.1~~3307.1.2 is hereby amended to read:

[BE] ~~3311.1~~3307.1.2 Stairways required. [Renumbered, text unchanged.]

(b) Required means of egress.
California Fire Code Section ~~3312.1.1~~3307.1.4 is hereby amended to read:

~~3312.1.1~~3307.1.4 Required means of egress. [Renumbered, text unchanged.]

16.52.5001. Hazardous materials: general.

(a) Scope. [Text unchanged.]
California Fire Code Section 5001.1 is hereby amended to read:

5001.1 Scope. [Text unchanged.]

Exceptions:

1.-5. [Text unchanged.]

6. Refrigeration systems (see Section ~~605~~608).

7. Stationary storage battery systems regulated by Section ~~1206.2~~1207.

8.-10. [Text unchanged.]

11. The use, storage or both of wall-mounted dispensers containing alcohol-based hand rubs classified as Class I or II liquids where in accordance with Section 5705.5.

12.-17. [Text unchanged.]

18. Storage and handling of lithium ion batteries regulated by Section 322320.

~~**5001.1.1 Waiver.** The provisions of this chapter are waived where the fire code official determines that such enforcement is preempted by other codes, statutes or ordinances. The details of any action granting such a waiver shall be recorded and entered in the files of the code enforcement agency.~~

(b) Hazardous materials business plan.
California Fire Code Section 5001.5.3 is hereby amended to read:

5001.5.3 Hazardous materials business plan. Facilities that are required to submit a Hazardous Materials Business Plan (HMBP) as required by Health and Safety Code (HSC), Chapter 6.95, Sections 25500 through 25547.8, and Title 19, Division 5, Chapter 1~~Division 2, Chapter 4~~, and facilities required to maintain a hazardous materials-related permit in accordance with Section 105.5 of this code, shall electronically submit a HMBP every year on or by the last day of the assigned month and no less frequently than that required by the HSC.

Exception: [Text unchanged.]

(c) Health hazards. [Text unchanged.]
California Fire Code Section 5001.2.2.2 is hereby amended to read:

(d) Biosafety level 3 and biosafety level 4 operations. [
California Fire Code Section ~~5003~~ 5001 is hereby amended by adding Section 5001.7 to read:

5001.7 Biosafety level 3 and biosafety level 4 operations. [Text unchanged.]

16.52.5003. Hazardous materials: general requirements.

(a) Highly toxic and toxic gases and similarly used or handled materials. [Text unchanged.]

5003.1.3.1 Highly toxic and toxic gases and similarly used or handled materials. The storage, use and handling of highly toxic and toxic gases in amounts exceeding Table 6004.2.1.4 shall be in accordance with this chapter and Chapter 60. Any highly toxic or toxic material that is used or handled as a gas or vapor shall be in accordance with the requirements for highly toxic or toxic gases.

(b)-(i) [Text unchanged.]

(j) 5003.10.4 Elevator transport.

California Fire Code Section 5003.10.4 is hereby amended to read:

5003.10.4 Elevators utilized to transport hazardous materials. [Text unchanged.]

5003.10.4.1 When transporting hazardous materials, elevators shall have no other passengers other than in the individual(s) handling the chemical transport cart.

5003.10.4.1.1 When transporting cryogenic or liquefied compressed gases, there shall be no occupants in the elevator.

5003.10.4.2 Hazardous materials liquid containers shall have a maximum capacity of 20 liters (5.26 gal).

5003.10.4.3 Toxic, highly toxic and asphyxiant gases shall be limited to a container of a maximum water capacity of 1 lb.

5003.10.4.4 When transporting cryogenic or liquified compressed gases, ~~M~~means shall be provided to prevent the elevator from being summoned to other floors.

16.52.5004. [Text unchanged.]

16.52.5601. Explosives and fireworks.

Chapter 56 of the 2024~~1~~ International Fire Code is not adopted with the exception of the following Section:

5601.1.3 Fireworks. [Text unchanged.]

16.52.5704. Flammable and combustible liquids.

(a)-(b) [Text unchanged.]

(c) Automatic and/or remote filling of tanks.

California Fire Code Section 5704 is hereby amended by adding Section 5704.2.7.5.9 to read:

5704.2.7.5.9 Automatic and/or remote filling of tanks. Systems that remotely automatically fill flammable or combustible liquid tanks shall be equipped with overfill protection, approved by the *fire code official* that sends an alarm signal to a constantly attended location and immediately stops the filling of the tank. The alarm signal and automatic shutoff shall be tested on an annual basis and records of such testing shall be maintained on-site for a period of five years.

(d)-(e) [Text unchanged.]

16.52.5706. Special operations. [Text unchanged.]

16.52.5707. On-demand mobile fueling. [Text unchanged.]

16.52.5809. Mobile gaseous fueling of hydrogen-fueled vehicles.

(a) Site plan.
California Fire Code Section 5809.3.~~4~~ 3 is hereby amended to read:

5809.3.~~4~~ 3 Site plan. For other than emergency-roadside service, a site plan shall be developed for each location at which mobile gaseous hydrogen fueling occurs. The site plan shall be in sufficient detail to indicate: all buildings, structures, lot lines, property lines and appurtenances on site and their use and function, and the scale of the site plan.

16.52.6004. Highly toxic and toxic compressed gases.

(a) Indoor storage and use. [Text unchanged.]

(b) Applicability.
California Fire Code Section ~~5809.3.4~~6004.2.1 is hereby amended to read:

6004.2.1 Applicability. The applicability of regulations governing the indoor storage and use of highly toxic and toxic compressed gases shall be as set forth in Sections 6004.2.1.1 through 6004.2.1.4.

(c)-(e) [Text unchanged.]

16.52.6405. Pyrophoric materials. [Text unchanged.]

16.52.7000. Modifications.

(a) **Deferment.**

~~2021~~ 2024 International Fire Code Section B103.4 is hereby amended to read:

B103.4 Deferment. [Text unchanged.]

16.52.7100 Fire flow requirements for buildings.

~~2022~~ 2025 California Fire Code Section B105.2 is hereby amended to read:

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. [Text unchanged.]

Exceptions:

1.-2. [Text unchanged

16.52.7500. Fire hydrant spacing.

(a) Average spacing.

Appendix C Section C103 of the ~~2022~~ 2025 California Fire Code is hereby amended to read:

C103.1 Hydrant spacing. [Text unchanged.]

16.52.8101. Fire apparatus and access roads.

(a) Scope.

Appendix D Section D101.1 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

D101.1 Scope. [Text unchanged.]

16.52.8102. Required access.

(a) Access and loading.

Appendix D Section D102.1 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

D102.1 Access and loading. [Text unchanged.]

16.52.8103. Minimum specifications.

(a) Turning radius.

Appendix D Section D103.3 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

D103.3 Turning radius. [Text unchanged.]

(b) Dead ends.

Appendix D Section D103.4 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

D103.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45,720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4 and Figure D103.~~4~~1.

TABLE D103.4
REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS

[Table D103.4 not reproduced here. No amendments are proposed for the table.]

(c) Dead end fire apparatus access road turnaround.
Appendix D Section D103.4 of the ~~2021~~ 2024 International Fire Code is hereby amended by adding Figure D103.~~4~~ 1 to read:

FIGURE D103.1~~4~~
DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND

[Figure D103.~~4~~ 1 not reproduced here. No amendments are proposed for the Figure.]

(d) Fire apparatus access road gates.
Appendix D Section D103.5 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

D103.5 Fire apparatus access road gates. [Text unchanged.]

(e) Roads 12 to 26 feet in width.
Appendix D Section D103.6.1 of the ~~2021~~ 2024International Fire Code is hereby amended to read:

D103.6.1 Roads 12 to 26 feet in width. [Text unchanged.]

(f) Roads more than 26 feet in width.
Appendix D Section D103.6.2 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

D.103.6.2 Roads more than 26 feet in width. [Text unchanged.]

16.52.8104. Aerial fire apparatus access roads.

(a) Where required.
Appendix D Section D105.1 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

D105.1 Where required. [Text unchanged.]

16.52.8105. Multi-family residential developments.

(a) Projects having more than 50 dwelling units.
Appendix D Section D106.1 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

106.1. Projects having more than 50 dwelling units. [Text unchanged.]

(b) Projects having more than 200 dwelling units.
Appendix D Section D106.2 of the ~~2021~~ 2024 International Fire Code is hereby deleted.

16.52.9000. Firefighter air replenishment systems. ~~Design and installation.~~

(a) Breathing air supply.
Appendix L Section L104.5 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

L104.5 Breathing air supply. [Text unchanged.]

(b) Fill station location.
Appendix L Section L104.13.1 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

L104.13.1 Location. [Text unchanged.]

(c) External mobile air connection location.
Appendix L Section L104.14.1 of the ~~2021~~ 2024 International Fire Code is hereby amended to read:

L104.14.1 Location. [Text unchanged.]

(d) Emergency fill station.
Appendix L Section L104 of the ~~2021~~ 2024 International Fire Code is hereby amended by adding Section L104.16 to read:

L104.16 Emergency fill panel (EFP). [Text unchanged.]

~~**16.52.9080 Reference Standards.**~~

~~**(a) Chapter 80 Reference Standards.**~~
~~The following standards in Chapter 80 of the 2022 California Fire Code are hereby amended to read. The remaining standards in Chapter 80 shall remain unchanged:~~

~~**NFPA**~~	
~~**855-20**~~	~~Standard for the Installation of Stationary Energy Storage systems.~~

SECTION 2. STATUTORY REFERENCES, INCLUSIONS OF AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of this ordinance, or of any other chapter or section of the Sunnyvale Municipal Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State of California, the reference applies to all amendments and additions now or thereafter made.

SECTION 3. INTERPRETATIONS. In interpreting and applying the provisions of this ordinance, the requirements contained herein are declared to be minimum requirements for the purposes set forth. The provisions of this ordinance, insofar as they are substantially the same as existing statutory provisions relating to the same subject matter, shall be construed as restatements and continuations and not as new enactments. This ordinance shall not nullify the more restrictive provisions of covenants, agreements or other ordinances or laws, but shall prevail as to such provisions which are less restrictive.

SECTION 4. FINDINGS. To the extent the changes and modifications set forth in this ordinance to the 2025 California Building Standards Codes, including the California Fire Code are deemed more restrictive than the standards contained in the 2025 California Building Standards Codes, thus requiring findings describing local conditions that justify such modifications, the Council finds and determines that the changes are reasonably necessary because of local climatic, geologic, or topographic conditions and adopts the findings for local amendments to the California Fire Code, 2025 Edition, attached as Exhibit "A" and incorporated herein by reference.

SECTION 5. CEQA - EXEMPTION. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15308 (Class 8) Actions by Regulatory Agencies for Protection of the Environment and Section 15305 (Class 5) Minor alterations in Land Use Limitations and Section 15061(b)(3) of the CEQA Guidelines, because it can be seen with certainty that there is no possibility that the changes adopted will have a significant effect on the environment.

SECTION 6. CONSTITUTIONALITY; SEVERABILITY. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be invalid, such decision or decisions shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance, and each section, subsection, sentence, clause and phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid.

SECTION 7. EFFECTIVE DATE. This ordinance shall be in full force and effect January 1, 2026.

SECTION 8. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication once in The Sun, the official publication of legal notices of the City of Sunnyvale, of a notice setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held on _____, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on _____, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:
RECUSAL:

ATTEST:

DAVID CARNAHAN
City Clerk
Date of Attestation: _____

APPROVED:

LARRY KLEIN
Mayor

(SEAL)

APPROVED AS TO FORM:

REBECCA L. MOON
City Attorney

Exhibit A

FINDINGS

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions of the California Building Standards Codes. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions of the California Building Standards Codes which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions. The City need not show that local conditions deviate from prevailing statewide conditions, only that the changes are "reasonably necessary because of local climatic, geological, or topographical conditions." (Cal. Health & Safety Code § 17958.5; *ABS Inst. v. City of Lancaster* (1994) 24 Cal. App. 4th 285, 294.).

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970, and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation do not require findings.

General Findings

On June 30, 2025, the governor signed AB 130 that took immediate effect, which imposed a moratorium on the adoption or modification of new state and local building standards affecting residential units. The City Council hereby finds that the local building regulations herein proposed have no effect on residential units, and that the changes or modifications are substantially equivalent to the changes or modifications that were previously filed by the City Council, and were in effect as of September 30, 2025.

Climatic Findings

a. Precipitation. Precipitation in Sunnyvale ranges from 4.83 to 30.30 inches per year with an average of approximately 13.86 inches per year. Approximately 90% falls during the months of November through April and 10% from May through October. This area experienced a major drought in 1977-78 and a moderate drought the next five years. It recently ended a seven-year drought and it is currently experiencing the driest three year period on record. The local climate is characterized by markedly delineated rainy and dry seasons, which tend to maximize the expansive characteristics of soil. Drought conditions tend to create more frequent and larger fire incidents

b. Relative Humidity. Humidity generally ranges from 60% during daytime to 80% at night. It drops to 20% during the summer months and occasionally drops lower.

c. **Temperatures.** Temperatures have been recorded as high as 108° F. Average summer highs are in the 78°-82° F. range.

d. **Winds.** Prevailing winds are from the Northwest or Southeast. However, winds are experienced from virtually every direction at one time or another. Velocities are generally in the 5-mph to 15-mph range, gusting to 7.4 mph to 30 mph, particularly during the summer months. Extreme winds, up to 60 mph, have been known to occur.

e. **Summary and Analysis.** These local climatic conditions affect the acceleration, intensity and size of fire in the community. Times of little or no rainfall, of low humidity and high temperatures create extremely hazardous conditions, particularly as they relate to wood shake and shingle roof fires and conflagrations. The winds experienced in this area can have a tremendous impact upon structure fires of buildings in close proximity to one another commonly found in Sunnyvale.

During wood shake and shingle roof fires, or exposure fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. In building fires, winds can literally force fires back into the building and can create a blowtorch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts. In developed areas of the City, fires can occur in buildings, rubbish, vehicles, and vegetation on vacant lots.

Geological, Geographic and Topographic Findings

a. **Geographic Location.** Sunnyvale is located in the Santa Clara Valley. It has taken its place as the second largest city in the “heart of the Silicon Valley," the center for an expanding and changing technology industry.

b. **Seismic Location.** Sunnyvale is situated on alluvial soils between San Francisco Bay and the San Andreas Fault zone. The City's location makes it particularly vulnerable to damage to taller and older structures caused by seismic events. The relatively young geological processes that have created the San Francisco Bay Area are still active today. Seismically, the City sits between two active earthquake faults (San Andreas and the Hayward/Calaveras) and numerous potentially active faults.

c. **Seismic and Fire Hazards.** In the event of a seismic occurrence, many areas of the city can expect damage or collapse of buildings due to Sunnyvale’s proximity to active earthquake faults. Secondary impacts could include ruptured gas lines, collapsed power lines, and breaks in the water distribution system. Gypsum wallboard and exterior portland cement plaster have performed poorly during recent California seismic events. The shear values for gypsum wallboard and portland cement stucco contained in the code are based on mono-directional testing. It is appropriate to limit the use of these products until cyclic loading testing are performed and evaluated. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself.

Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwelling or structure fires.

Other variables may tend to intensify the situation:

1. The extent of damage to the water system;
2. The extent of isolation due to bridge and/or freeway overpass collapse;
3. The extent of roadway damage and/or amount of debris blocking the roadways;
4. Climatic conditions (hot, dry weather with high winds);
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours;
6. The availability of timely mutual aid or military assistance;
7. The large portion of dwellings with wood shingle roof coverings could result in conflagrations.

d. Size and Population. The City has an area over 24 square miles in size and a population estimated to be 159,673.

e. Development. Sunnyvale is a community which is projected to add 15,500 new residential units within the next twenty years, primarily in multi-family configurations, for which building and fire-life safety is a matter of acute importance.

f. Public Safety Department. Sunnyvale utilizes a public safety (joint police/fire) department with personnel who function as both fire suppression and police officers, resulting in fewer personnel than otherwise would be required for a city of its size. A premium is therefore placed on built-in physical techniques and devices as crime preventative measures. It is therefore also imperative that fire detection and suppression occur as quickly as possible to minimize loss of property and life. Added protection of fire sprinkler systems and other fire protection measures will supplement normal public safety response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. For these reasons the most stringent provisions are required concerning fire detection, alarm and suppression systems.

g. Roads and Streets. Sunnyvale is characterized by large buildings and building complexes and is bounded by several major freeways and expressways, which intersect railroad tracks and additional expressways and major arterial streets. These surface features have a major adverse effect upon the road and street layout in the community, including major traffic routes. In addition, the number of vehicle miles driven in the City is steadily increasing and considerable efforts in traffic and roadway improvements are being made to ease the crush of commuters to and through the City to their homes and places of work. Because of the City's high concentration of jobs, much of the peak traffic is made by nonresidents traveling to or from Sunnyvale. Existing surface feature conditions limit the number and cause

indirect routing of major arterial streets for normal traffic as well as emergency vehicle response. The impact of planned developments and traffic flow will continue to have an effect on the Department of Public Safety and delivery of fire services.

During the peak AM and PM traffic periods, the City experiences extremely heavy traffic congestion at key intersections and near freeway on-ramps and off-ramps. As noted above, the limited number and the indirect routing of some roads and streets in the community can create heavy, slow traffic conditions and excessively long travel routes from point to point within the community. Thus, in the event of an emergency at a key intersection, overpass, underpass, bridge or other circulation corridor, sections of the City may become temporarily isolated and response times for emergency crews increased beyond ideal times.

Intersections are rated on a level of service (LOS) scale ("A" for excellent operational conditions to "F" for poor conditions). Many of the City's major intersections are currently rated, or with new development, anticipated to be rated LOS D or less for both AM and PM peak hours. These conditions create barriers to effective emergency response times, which in turn increase the risk of injury or spread of fire.

h. Industry. Sunnyvale is the site of many manufacturing and research industries which use toxic, flammable and explosive chemicals and materials in potentially hazardous combinations. The availability of high-tech and similar businesses creates unique access to innovative products and technology to reduce energy and water use to mitigate business demands. Businesses located in developed and developing industry centers in Sunnyvale frequently use various types of hazardous materials. In addition, daytime work populations in these areas are also increasing as new buildings are developed and remodeled, making protections against hazardous materials increasingly important. Special precautions are required to minimize the risk of damage to adjoining persons and properties.

i. Mixed Industrial/Residential Uses. High-density residential uses are located near high-risk industries, necessitating special precautions.

j. Transportation. Sunnyvale is divided by an interstate highway, which potentially could affect response times of fire suppression equipment.

k. Soil Conditions and Topography. Sunnyvale lies at the southern end of San Francisco Bay and is built atop the alluvial deposits that surround the margins of the Bay. The alluvium was created by the flooding of the many streams emptying into the San Francisco Bay depression, and from intermittent seawater inundation that has occurred over the last 2 or 3 million years. The areas closest to the Bay are overlain by unconsolidated fine silty clay, known as "Bay Mud" which varies in thickness from a few feet to as much as 30 feet. Generally, the older, more stable alluvium is to the south and the younger, less stable material is to the north. Bedrock lies beneath the area at depths generally 300' or more. The topography is essentially flat, dropping from an elevation of 300 feet to sea level. The slope across the City is in a northeasterly direction from the high point in the southwest corner to the Bay. The average slope is approximately 0.9%.

The Silicon Valley is within a very active seismic area and local soil conditions can be highly expansive (clay soils). The Northridge earthquake provided hundreds of examples of damage to plain concrete footings. This type of damage is extremely expensive to repair, in contrast to the small expense of providing nominal footing reinforcement. Footing reinforcement is also necessary to prevent damage due to pumping action caused by local expansive soils, which shrink and swell during seasonal drying and wetting conditions.

Most of the surface soils in the Silicon Valley are relatively young and unconsolidated sedimentary materials formed from a wide variety of parent materials. The varying chemical composition, degree of weathering, and the relatively acid environment have created soils of varying types, which are particularly corrosive in nature. Much of the surface soil in the Silicon Valley is highly expansive (i.e., shrink-swell behavior) and has low bearing strength.

l. Water/Sewer. Some parts of the Silicon Valley have hard water, which is corrosive to ferrous pipe. The groundwater table is unusually high in many places. Expansive soils create unstable conditions, which increase the potential of breaks in sewer laterals. To maintain health and sanitary services, it is necessary to gain access, to periodically maintain public sanitary laterals.

Wastewater draining from indoor sources in Sunnyvale flows through sewer pipes that direct the wastewater to the Water Pollution Control Plant for treatment before being discharged to the San Francisco Bay. If left untreated before discharge, residential, commercial and industrial wastewater would upset the delicate ecosystem of southern San Francisco Bay. The City of Sunnyvale is one of 74 co-permittees listed under a regional municipal stormwater permit for the San Francisco Bay. On November 19, 2015, order No. R2-2015-0049 was adopted by the Regional Water Quality Control Board (RWQCB) for Region 2. This permit regulates discharges from municipal separate storm drain systems into waterways under each co-permittee's jurisdiction. The City of Sunnyvale has developed an Urban Runoff Management Plan (URMP) to reduce, control, or otherwise address pollutant sources in discharges to the storm drain system. Departments within the City of Sunnyvale have adopted Best Management Practices (BMPs) and Standard Operating Procedures (SOPs) to reduce the presence of pollutants in stormwater discharges to the maximum extent practicable.

The Sunnyvale URMP focuses on prevention of illicit connection/illegal dumping, quality of industrial and commercial discharges, and minimizing impacts from new development and construction activities. The City implements BMPs for maintaining street and roads, storm drains, and water utilities, and preventing stormwater pollution.

m. Buildings, Landscaping and Clearances. Many of the newer large buildings and building complexes are of designs which greatly limit visibility and approach to and accessibility by Public Safety resources. Many houses and other buildings with wood roofs and/or sidings are so close together that fire may readily spread from one to another by both radiation and convection.

n. Business & Industry Centers. The current clusters of high-tech, bio-tech, manufacturing and similar companies create additional demands on water, sewer, and electrical facilities. These businesses offer opportunities and access to innovative products, services and technology, and may also be more likely to utilize such products, services, and technology. For example, the more businesses, the greater the demands on water, sewer and power facilities during peak mid-day periods, which could lead to shortages or service disruptions, or use of services and technology impacting health and safety.

Because of the State's policy initiatives, California remains a focal point for development of hydrogen fueling technology and implementation. Successful market launch and continued growth of California's hydrogen fueling network will contribute to the state meeting zero-emission vehicle goals as well as greenhouse gas reduction, air quality improvement, and petroleum reduction goals set forth in state and federal laws and programs.

Because the State of California is on the forefront of implementing hydrogen fueling technologies, regulation of hydrogen mobile fueling by adopting a local amendment to require site plans is appropriate and necessary in light of the nature of the activity amongst the unique characteristics found in Sunnyvale as described in the findings, including dense building development, a growing workforce and population, as well as traffic limitations when responding to an emergency.

o. Population. Sunnyvale has a current and rapidly growing population (both resident and daytime work) that impacts fire and police service. With more people, there is more traffic congestion during a greater part of the day, which not only slows emergency vehicle response but may also restrict access to fire and crime scenes. Similarly, more emergency incidents requiring a public safety response occur with a larger population, created a greater likelihood of simultaneous emergency incidents requiring a public safety response. This results in longer response times and fewer fire companies or police units to respond to emergencies within the community.

p. Summary and Analysis. The stated local geological, geographic and topographical conditions increase the magnitude, exposure, accessibility problems and fire hazards presented to the Department of Public Safety and have a negative impact upon the response capability of public safety resources. Lying beneath Sunnyvale are thick layers of sand, gravel and clay, known as alluvium, which amplify the effects of earthquakes. Based on the combination of these conditions, local experience from the damage caused in Santa Clara Valley by the 1906 earthquake and the poor performance of alluvial deposits during earthquakes, this area could be subject to severe structural damage or failure, multiple major fires and additional fire dangers, and place a great strain on police, fire and rescue resources. A seismic event could also trigger widespread damage to hazardous material storage vessels and cause substantial hazardous material releases into the

environment.

The possibility of fire ignition increases as earthquake shaking increases. Fire due to broken gas lines or short circuits of electrical systems is a major established hazard associated with earthquakes. Most buildings in Sunnyvale are partially or entirely combustible which increases the City's vulnerability to fire. As discussed above, traffic conditions may slow or impede emergency response in any given fire or hazardous materials event, particularly in the event of a seismic event or other natural disaster. Thus, with the potential inability of emergency services to guarantee rapid response, it is necessary to mitigate this problem by requiring additional protections such as built-in fire protection systems, which will provide for early detection and additional fire control.

Conclusion and Findings.

Local climatic, geologic, and topographic conditions impact crime prevention efforts and the frequency, spread, acceleration, intensity and size of fires involving buildings, strength of building structural systems to resist local hazards and ability to deliver uninterrupted services in the community. The potential for significant damage arising from these conditions makes it reasonably necessary to modify the uniform codes to mitigate the effects of the above conditions. None of the amendments will affect residential units, and all changes or modifications are substantially equivalent to the changes or modifications that were previously filed by the City Council and in effect as of September 30, 2025.

Therefore, the City Council finds that (with the exception of changes justified on administrative grounds), the local amendments of the 2025 California Fire Code is justified by all of the aforementioned findings.