

RESOLUTION NO. 19-131

A RESOLUTION OF THE COUNCIL OF THE CITY OF CUPERTINO MAKING FINDINGS RELATING TO LOCAL CLIMATIC, GEOGRAPHICAL, OR TOPOGRAPHICAL CONDITIONS SUPPORTING AMENDMENTS AND CHANGES TO THE 2019 CALIFORNIA BUILDING STANDARDS CODE.

WHEREAS, the City Council of the City of Cupertino, intends to pass an ordinance adopting the California Building Standards Code which consists of the 2019 editions of the California Building Code, Residential Code, Energy Code, Plumbing Code, Mechanical Code, Electrical Code, Fire Code, Historical Building Code, Existing Building Code, Referenced Standards Code and Green Building Standards Code and making modifications and changes thereto; and

WHEREAS, the California Health and Safety Code Sections 17958, 17958.5 and 17958.7 require the governing body of a city, before making any modification or changes to the California Building Standards Code, to make an express finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, as more specifically set forth in the October 15, 2019 staff report for this item by Albert Salvador, the City's Building Official, a departure from the Building Standards Code is reasonably necessary due to local climatic, geological, or topographical conditions;

NOW, THEREFORE, BE IT RESOLVED that the City Council does hereby:

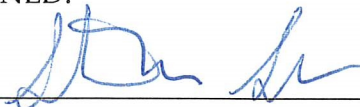
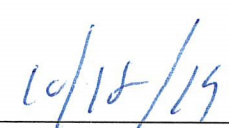
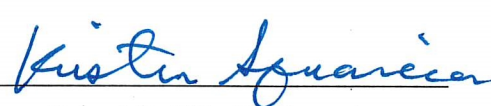
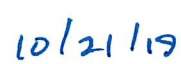
1. The City Council hereby finds the following facts to be true:
 - A. The Bay Area region is a densely populated area with buildings constructed over and near a vast array of fault systems capable of producing major earthquakes, including, but not limited to the recent 1989 Loma Prieta Earthquake;
 - B. Cupertino is situated adjacent to active earthquake faults capable of producing substantial seismic events. The San Andreas and Sargent-Berocal faults run through the lower foothills and the Monta Vista Fault is closer to the valley floor area. The Hayward fault is North East of the City which would also presents a risk to Cupertino in the event of an earthquake;
 - C. Vehicular traffic through Cupertino is significant, and continues to increase as Cupertino is an employment center as well as the location of residential projects;

- D. Because Cupertino is divided by major freeways and expressways, the occurrence of a major earthquake could impact the ability of fire crews to respond to emergencies should one or more of the freeways or expressways collapse, be substantially damaged, or become gridlocked;
 - E. Fire suppression capabilities would be severely limited should the water system be damaged during an earthquake;
 - F. Cupertino experiences low humidity, high winds and warm temperatures during the summer months creating conditions which are particularly conducive to the ignition and spread of grass, brush and structural fires;
 - G. Cupertino's topography contains remote, steep hillsides which further limits the ability of emergency responders to extinguish or control wildland or structural fires;
 - H. The local geographic, topographic and climatic conditions require amendments to the California Building Standards Code to establish more restrictive conditions to improve structural integrity of the buildings in the event of a seismic incident and provide other protections to protect against the increased risk of fire.
2. Based on the above facts, the City Council makes the following finding: that Cupertino's local geographic, topographic and climatic conditions require amendments to the California Building Standards Code to establish more restrictive conditions to improve structural integrity of the buildings in the event of a seismic incident, provide other protections to protect against the increased risk of fire as more specifically set forth in the memorandum from Albert Salvador, the City's Building Official, and as summarized in the chart attached hereto as Exhibit A.
3. Based on the above finding, the City Council determines that it is necessary to make local amendments to the California Building Standards Code based upon the local conditions.

BE IT FURTHER RESOLVED that this Resolution is not a project under the requirements of the California Quality Act of 1970, together with related State CEQA Guidelines (collectively, "CEQA") because it has no potential for resulting in physical change in the environment, either directly or ultimately. In the event that this Ordinance is found to be a project under CEQA, it is subject to the CEQA exemption contained in CEQA Guidelines section 15061(b)(3) because it can be seen with certainty to have no possibility of a significant effect on the environment. CEQA applies only to projects which have the potential of causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. In this circumstance, the amendments to the City Code would have no or only a de minimis impact on the environment. The foregoing determination is made by the City Council in its independent judgment.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Cupertino this 15th day of October, 2019, by the following vote:

<u>Vote</u>	<u>Members of the City Council</u>
AYES:	Scharf, Chao, Paul, Sinks, Willey
NOES:	None
ABSENT:	None
ABSTAIN:	None

SIGNED:  _____ Steven Scharf, Mayor City of Cupertino	 _____ Date
ATTEST:  _____ Grace Schmidt, City Clerk	 _____ Date

For

EXHIBIT A

MATRIX TABLE FOR JUSTIFICATION AND FINDINGS FOR LOCAL AMENDMENTS					
MUNICIPAL CODE SECTION	TITLE	ADDED TO CALIF. CODE	DELETED FROM CALIF. CODE	AMENDED FROM CALIF. CODE	JUSTIFICATION (See below for key)
16.02.010 through 16.02.030	Municipal Code Sections were consolidated and renumbered to be more in line with the corresponding section of the 2019 California Building Code.	X			A
16.02.040	Reference changes were made to reference the 2019 California Building Code. Language was added to be consistent with the 2019 California Building Code.			X	
16.02.050	Reference changes were made to reference the 2019 California Building Code. Language was added to be consistent with the 2019 California Building Code. Section 105.3.1 was inadvertently left out from last code cycle. Language for a Job Card to be posted on job site visible from the street was added.			X	
16.02.060	Reference changes were made to reference the 2019 California Building Code. Language was added to be consistent with the 2019 California Building Code. This section for submittal documents was added from the Administrative sections of the California Building Code and amended to reflect our electronic review process. Section 107.2.1 through 107.2.6 was removed because the language of the section now resides in the California Building Code, Volume 1.			X	
16.02.070 through 16.02.100	This section previously existed in the Municipal Code for inspection requirements. Reference changes were made to reference the 2019 California Building Code. Portions of Section 110 were removed from the ordinance because the language resides in the adopted model code.			X	
16.02.110	This section previously existed in the Municipal Code. Reference changes were made to reference the 2019 California Building Code. Language was added for the Board of Appeals to be appointed by the City Manager.			X	
16.02.120	Reference changes were made to reference the 2019 California Building Code. Some language was removed since these requirements are already adopted from the model code.			X	
16.02.130	These sections previously existed in the Municipal Code. Reference changes were made to reference the 2019 California Building Code. Penalty language in Section 115.3 for any person continuing to work after a stop work notice is issued was added from model code.			X	

16.04.010	This section previously existed in the Municipal Code. A reference change is made to reference the 2019 California Building Code. A more descriptive title change was added to be more consistent with the rest of the ordinance.			X	
16.04.015	This section previously existed in the Municipal Code. This section modifies the CBC by adopting specific appendix chapters in the code. Only a reference change is made to reference the 2019 California Building Codes.			X	
16.04.020	Regulations for proper address identification already exist in the Municipal Code. The CBC, however, also has regulations regarding address identification. The adoption and revisions to Section 501.2 referenced in the Municipal Code brings Cupertino more in line with the model code.			X	E
16.04.040 16.04.060	These sections previously existed in the Municipal Code. A reference change is made to reference the 2019 California Building Code. Language was added to be consistent with the 2019 California Building Code.			X	A
16.04.080	This section previously existed in the Municipal Code. A reference change is made to reference the 2019 California Building Code.			X	C
16.04.100	This proposed amendment to the CRC is made to be consistent with TUCC amendment that modifies the plain concrete provisions in CBC Section 1905.1.7 and ACI 318 Section 14.1.4.			X	D
16.04.120	<p>This amendment existed in the previous Municipal Code. Only a reference change is made to be consistent with the new section and table in the 2019 CRC Code. The amendment modifies California Building Code to restrict the use of gypsum wallboard (GB), structural fiberboard (SFB), hardboard panel siding (HPS), and particleboard sheathing (PBS) as braced wall panels and limit the use of portland cement plaster or stucco (PCP).</p> <p>The proposed amendment addresses the problem of poor performance of gypsum wallboard and Portland cement plaster as wall bracing materials in high seismic areas. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of these bracing materials that were observed in 1994 Northridge earthquake.</p>			X	B
16.04.140	This section previously existed in the Municipal Code. A reference change is made to reference the 2019 California Building Code.	X			
16.06.010	This section previously existed in the Municipal Code. Only a reference change is made to reference the 2019 California Residential Code. Language was added to be consistent with the 2019 California Building Code.			X	

16.06.015	This section previously existed in the Municipal Code. This section modifies the CBC by adopting specific appendix chapters in the code. Only a reference change is made to reference the 2019 California Residential Code.			X	
16.06.020	Amendment to delete the exception #2 that removes the emergency escape and rescue openings from bedrooms in basements.				
16.06.040	Fire sprinkler systems have been required by policy for the rebuild of existing homes. Clarification of this requirement is added in this section. Also, based on new requirements per Government Code Section 65852.2 for Accessory Dwelling Units, language has been added to waive Fire Sprinkler requirements for ADU's when the primary residence is not equipped with one. The ordinance, however, does not exempt fire sprinkler requirements for ADU's where the additional building area exceeds a threshold amount or if Access or Water Supply requirements do not meet the requirements of the California Fire Code.			X	
16.06.060	This amendment existed in the previous Municipal Code. Only a reference change is made to be consistent with the new exception in the 2019 California Residential Code. Language was added to be consistent with the 2019 California Residential Code. Deleted exceptions for accessory structures.			X	
16.06.080	<p>This section previously existed in the Municipal Code. A reference change is made to reference the 2019 California Residential Code. There is no change to this section, however, the findings for this amendment, introduced in a previous code cycle, is included here for reference.</p> <p>This proposed amendment to the CRC is made to be consistent with Tucc amendment that modifies the plain concrete provisions in CBC Section 1905.1.7 and ACI 318 Section 14.1.4.</p>			X	D
16.06.100	<p>This amendment existed in the previous Municipal Code. Only a reference change is made to be consistent with the new section and table in the 2019 CRC Code. The amendment modifies California Residential Code to restrict the use of gypsum wallboard (GB), structural fiberboard (SFB), hardboard panel siding (HPS), particleboard sheathing (PBS), and continuously sheathed structural fiberboard (CS-SFB) as braced wall panels and limit the use of portland cement plaster or stucco (PCP).</p> <p>The proposed amendment addresses the problem of poor performance of gypsum wallboard and Portland cement plaster as wall bracing materials in high seismic areas. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of these bracing materials that were</p>			X	C

	observed in 1994 Northridge earthquake.				
16.06.120 & 16.06.140	This section previously existed in the Municipal Code. A reference change is made to reference the 2019 California Residential Code.			X	A
16.16.010 & 16.16.020	These sections previously existed in the Municipal Code. Only a reference change is made to reference the 2019 California Electrical Code.			X	A
16.16.030	Language from the previous code is revised to reflect when general building contractors are allowed to do electrical work. The municipal code is now consistent with the requirements of the Business and Professions Code Section 7057(b).			X	
16.16.040 through 16.16.060	These sections previously existed in the Municipal Code with no change.			X	
16.20.010 & 16.20.015	This section previously existed in the Municipal Code. Only a reference change is made to reference the 2019 California Plumbing Code.			X	
16.20.020	No change.			X	
16.20.080	This section currently exists in the Municipal Code. This section is being omitted based on Section 814 of the 2016 California Plumbing Code containing all listed requirements.		X		A
16.24.010 & 16.24.015	This section previously existed in the Municipal Code. Only a reference change is made to reference the 2019 California Mechanical Code.			X	A
16.24.020	No change.			X	
Chap 16.40	Chapter 16.40 is being repealed and replaced in its entirety. Municipal Code Sections were consolidated and renumbered to be more in line with the corresponding Chapters of the 2019 California Fire Code.				E
16.40.010	Reword to be consistent with the adoption language for all other 2019 California Codes. A reference change is made to reference the 2019 California Fire Code and the 2018 International Fire Code.			X	
16.40.015	This section modifies the California Fire Code by adopting specific appendix chapters in the code. A reference change is made to reference the 2019 California Fire Code. Appendix N is changed to Appendix O in the Fire Code.			X	
16.40.020	A reference change is made to reference the 2019 California Fire Code. Nominal Inspection fees were updated to be more aligned with the current cost of service. Language requiring an operational permit for collection or storage of Lithium Batteries is included.			X	
16.40.040	Two definitions were added to the Fire Code and a couple definitions were deleted that were added to the California Code.			X	

16.40.060	The new Lithium Batteries requirements of Section 315.8 and Industrial additive manufacturing equipment regulations of Section 321 were adopted.			X	
16.40.080	Exceptions are amended for fire apparatus access roads allowing the extension of 150 feet to the exterior of the building or facility. Requirements for emergency responder radio coverage in new building from Section 510.1 were amended and adopted.			X	
16.40.100	Immersion Heater regulations already exists in our municipal code but new regulations limiting locations for the storage and use of portable outdoor gas-fired heating appliances were added.			X	
16.40.120	Regulations already exists in municipal code. A reference change is made to reference the 2019 California Fire Code.			X	
16.40.140	Automatic fire sprinkler system regulations already exists in the municipal code. New code reference changes were made. Inspection, testing and maintenance record regulations are newly codified in this section.			X	
16.40.160	Chapter 11 of the 2018 International Fire Code is deleted in its entirety. The regulations of Chapter 11 of the 2019 California Fire Code are adopted to be enforced.			X	
16.40.180 16.40.200	Sections for Means of Egress and Wildland-Urban Interface Fire Area currently exists in the municipal code. Reference changes were made to reference the 2019 California Fire Code.			X	
16.40.220 through 16.40.340	Hazardous materials regulations Explosives and Fireworks regulations already exists in municipal code. Reference changes were made to reference the 2019 California Fire Code. On-Demand fueling stations requirements were taken out of municipal code because they were adopted in the California Fire Code. Portions of Chapter 60 for Highly Toxic and Toxic Materials were taken out of the municipal code because the regulations were adopted in the California Fire Code. Reference changes were made to reference the 2019 California Fire Code.			X	

KEY TO JUSTIFICATIONS FOR AMENDMENTS TO TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS	
A	This amendment is necessary for administrative clarification and does not modify a Building Standard pursuant to California Health and Safety Code Sections 17958. This amendment establishes administrative standards for the effective enforcement of building standards throughout the City of Cupertino.
B	This proposed amendment for topographic and geographic conditions has been voted for approval by the <u>local Tri-chapter Uniform Code Committee</u> (TUCC) and addresses the problem of poor performance of plain or under-reinforced concrete footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of plain and under-reinforced concrete footings observed in 1994 Northridge earthquake and based on the following:

	<p>1. The San Francisco Bay area is densely populated and located in an area of high seismic activity. Cupertino is bounded by the Hayward and San Andreas faults capable of producing major earthquakes.</p> <p>2. Concern for fire-life safety associated with a structural failure due to a seismic event considering the increasing number of buildings in the region, the use of new structural systems, the poor performance of certain materials, and the quality of construction.</p> <p>3. Severe seismic events could disrupt communications, damage gas mains, cause extensive electrical hazards, and place extreme demands on the limited and widely dispersed resources of the Fire Department to meet the fire life-safety needs of the community.</p> <p>4. The local geographic, topographic and climatic conditions pose an increase hazard in acceleration, spread, magnitude and severity of potential fires in the City of Cupertino, and may cause a <u>delayed response from emergency responders</u>, allowing further growth of the fire.</p>
C	<p>Considering topographic and geographic conditions, the results from studies after the 1994 Northridge earthquake indicated that a lot of the damages were attributed to lack of quality control during construction. The proposed amendment improves quality control during construction and therefore needs to be incorporated into the Code. Revise CBC Section 1705.3 exception No. 1 to allow special inspection not to be required for isolated spread footing where the structural design of the footing is based on a specified compressive strength, $f'c$, no greater than 2,500 psi. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p>
D	<p>ISSUE:</p> <p>Revise section 1905.1.7. American Concrete Institute (ACI) 318 Section 14.1.4 that allows the use of plain concrete in residential structures assigned to Seismic Design Category C, D, E or F.</p> <p>RATIONALE:</p> <p>The proposed amendment addresses the problem of poor performance of plain or under-reinforced concrete footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of plain and under-reinforced concrete footings observed in 1994 Northridge earthquake.</p>
E	<p>Amendments to the 2019 California Fire Code are reasonably necessary for the protection of the public health, safety and welfare, due to the local climatic, geologic or topographical conditions specified as follows:</p> <p>The City of Cupertino experiences low humidity, high winds and warm temperatures during the summer months creating conditions which are particularly conducive to the ignition and spread of grass, brush and structure fires. Additionally, the City of Cupertino is geographically situated adjacent to active earthquake faults capable of producing substantial seismic events. Since the City of Cupertino is divided by an active Union Pacific railway service line (freight), creeks, highways, and other substantial traffic corridors, the occurrence of a major earthquake would significantly impact the ability of fire crews to respond to emergencies should one or more bridges collapse or be substantially damaged. In addition, fire suppression capabilities would be severely limited should the water system be extensively damaged during the seismic event. Therefore, mitigation measures are necessary such as: automatic fire suppression systems, communications systems, access to buildings, seismic protection, safety controls for hazardous materials and other safe guards in order to minimize the risks to citizens, firefighters and property due to the severity of the fire threat and potential response delays.</p>