



CITY COUNCIL AGENDA REPORT

Meeting Date: November 6, 2025

From: John Swiecki, Community Development Director

Subject: Introduce draft ordinance adopting the 2025 California Building Standards Code with local amendments and finding that this Ordinance categorically exempt from environmental review under CEQA Guidelines Section 15308, Actions by Regulatory Agencies for Protection of the Environment.

Recommendation

Staff recommend introduction of the ordinance adopting the most recent version of the California Building Standards Codes (Code of Regulations, Title 24 or CBC) and the International Property Maintenance Code (IPMC), including local amendments to the CBC, readopting previous reach codes, and amending the Brisbane Municipal Code (BMC).

Background

Every three years a new set of construction codes is published by the State. Local adoption of these codes allows the City to enforce them under the authority of the BMC. A city may also adopt local modifications to these codes based on certain findings. Whether or not a city elects to adopt the State codes by local ordinance, the State codes automatically become effective January 1, 2026.

The last Code adoption cycle was in 2022 when the City amended Chapter 15.04 of the BMC, to adopt the 2022 Edition of the California Building Standards Code. At the same time, the City also amended other chapters within Title 15 of the BMC to adopt local “reach codes” pertaining to fire protection, building electrification, and electric vehicle (EV) charging infrastructure.

This draft ordinance was prepared collaboratively between the Planning, Building, Public Works and Fire Departments and in consultation with the City Attorney.

Discussion

Building Code and Property Maintenance Code Adoption: The proposed ordinance would adopt the following construction codes by updating BMC Chapter 15.04, Adoption of Construction Codes:

1. 2025 California Administrative Code, Title 24, Part 1.

2. 2025 California Building Code, Volumes 1 and 2, based on the 2024 International Building Code (ICC), Title 24, Part 2, including Appendix G Flood Resistant Construction, Appendix I Patio Covers, and Appendix J Grading.
3. 2025 California Residential Code, based on the 2024 Edition International Residential Code (ICC), Title 24, Part 2.5, including Appendix BF Patio Covers, Appendix BO Existing Building and Structures, Appendix BG Sound Transmission, and Appendix CI Swimming Pool Safety Act.
4. 2025 California Electrical Code, based on the 2023 Edition National Electric Code with California Amendments as published by the National Fire Protection Association (NFPA), Title 24, Part 3.
5. 2025 California Mechanical Code, based on the 2024 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials (IAPMO), including all appendix chapters, Title 24, Part 4.
6. 2025 California Plumbing Code, based upon the 2024 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials (IAPMO), including all appendix chapters, Title 24, Part 5.
7. 2025 California Energy Code, Title 24, Part 6.
8. 2025 California Wildland-Urban Interface Code, Title 24, Part 7
9. 2025 California Historical Building Code, Title 24, Part 8.
9. 2025 California Fire Code, Title 24, Part 9, and modifications thereof, see Chapter 15.44 of this title.
10. 2025 California Existing Building Code based on the 2024 International Existing Building Code Edition, published by the International Code Council, together with those omissions, amendments, exceptions and additions thereto as amended in Part 10 of the California Building Standards Code, California Code of Regulations Title 24.
11. 2025 California Green Building Standards Code, Title 24, Part 11.
12. 2025 California Referenced Standards Code, Title 24, Part 12.

Additionally, in order to keep current with property maintenance provisions, it is recommended that the 2024 International Property Maintenance Code be adopted to replace the 2021 edition.

As indicated above, adoption of the above referenced codes would allow the City to enforce these codes under the authority of the BMC.

Energy and Reduction of Greenhouse Gas Emissions Reach Codes: To supplement the updated State codes noted above, it is proposed that the City maintain previously adopted local modifications, known as “reach codes”, to address local fire hazards as well as energy efficiency and greenhouse gas (GHG) emissions. The table below identifies the City’s existing reach codes related to energy and GHG reductions and summarizes staff’s proposed action.

Recent state legislation (AB 130) limits cities' abilities to enact new reach codes applicable to residential structures, but readoption of existing reach codes or modifications that are substantially equivalent to codes in effect prior to September 30, 2025 are permitted.

<i>Reach Code</i>	<i>Recommended Action</i>
2024 New Buildings Energy Performance (BMC Ch 15.83)	Retain/readopt with minor updates to compliance margins (building efficiency scores) at a future date (updates expected in Q1 2026)
2019 EV Charging Infrastructure (BMC Ch 15.84)	Retain/readopt with no modifications

BMC Chapter 15.83 - New Buildings Energy Performance: This reach code is still considered a reasonable prescriptive reach code, however, new, updated compliance margins will not be released until 2026, therefore no action is required at this time and an update is not a part of the draft ordinance.

The City adopted BMC Chapter 15.83 in the summer of 2024 as part of a mid-cycle update to the 2022 CBC. It increased the required score of specific energy metrics that are calculated for every new building under the California Energy Code, resulting in a decrease in energy use and emissions from newly constructed buildings. The enhanced performance requirements would apply equally to mixed-fuel (i.e. natural gas and electric) and all-electric buildings and are cost-effectively achievable through the energy code's performance pathway without requiring appliances that exceed federal efficiency standards.

This reach code amends the Energy Code (Part 6 of the CBC), requiring the City to file an application to the California Energy Commission to demonstrate that any local amendments are cost effective and would save more energy than those required by the State. This is done by submitting a detailed cost effectiveness study to the State. The City's application in 2024 was approved by the Energy Commission and it is expected the State will again approve the City's local amendments to the 2025 California Energy Code.

BMC Chapter 15.84 - EV Charging Infrastructure: This reach code is still considered a reasonable prescriptive reach code (see Section 1 of the draft ordinance).

The City readopted BMC Chapter 15.84 during the last cycle in 2022 and made a minor update to it in 2024. It requires specific EV chargers and EV parking spaces in new development projects. This reach code remains stronger than the new 2025 CBC and consistent with EV reach codes proposed by the Bay Area Reach Codes Coalition. This reach code is recommended to be retained and readopted without revision.

Fire Code, BMC Chapter 15.44: Since 2007, the City has adopted local modifications to the Fire Code that address items such as automatic fire sprinklers on certain structures, fire access turnarounds on dead end roads, removal of combustible materials from property, limitations on storage of explosives and flammable liquids, and other provisions. Local modifications to the

Fire Code are again proposed in BMC Chapter 15.44 of the attached draft ordinance. In this cycle, there are no substantive changes to the previously approved modifications. Fire Code amendments are included as Section 5 of the draft ordinance.

Express Findings Required for Local Amendments: Section 17958 of the California Health and Safety Code provides that a local jurisdiction may make changes to the provisions within the State’s uniform codes that are published in the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions in the uniform codes and published in the California Building Standards Code 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, topographical, or environmental conditions.

In the past, the City has made such findings for local modifications to the Fire and Building Codes based on Brisbane’s heavily vegetated hillsides; narrow, steep public streets and private access-ways; proximity to the San Andreas Fault; exposure to strong winds; and location immediately adjacent to protected habitat conservation areas subject to wildland fires. While the findings for our reach codes have been made in past years, they must be repeated again as part of this Ordinance;. These findings are presented in Section 1 of the draft ordinance.

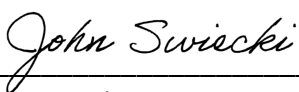
CEQA Determination: Adoption of the Ordinance is not subject environmental review under the California Environmental Quality Act (CEQA) in that it is categorically exempt under the CEQA Guidelines, Section 15308, Actions by Regulatory Agencies to Protect the Environment.

Fiscal Impact

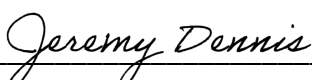
None

Attachments

1. Draft Ordinance adopting the 2025 California Building Standards Code with local amendments



John Swiecki, Community Development Director



Jeremy Dennis, City Manager

ORDINANCE NO. _____

**AN ORDINANCE OF THE CITY OF BRISBANE
TO AMEND BRISBANE MUNICIPAL CODE TITLE 15 - BUILDINGS AND CONSTRUCTION,
CHAPTER 15.04 - ADOPTION OF CONSTRUCTION CODES AND
CHAPTER 15.44 - FIRE PREVENTION CODE, ADOPTING THE 2025 CALIFORNIA
BUILDING STANDARDS CODES AND THE 2024 INTERNATIONAL PROPERTY
MAINTENANCE CODE, WITH CERTAIN LOCAL MODIFICATIONS.**

The City Council of the City of Brisbane hereby ordains as follows:

SECTION 1: The City Council finds and determines that:

- A. The 2025 Edition of the California Building Code (CBC) becomes effective state-wide on January 1, 2026 and City's adoption of the CBC is necessary in that it allows for enforcement of the CBC under existing and subsequently adopted enforcement provisions of the Brisbane Municipal Code.
- B. The City adopted a Climate Action Plan on September 17, 2015, which includes the goal of reducing carbon emissions from fossil fuels to help curb global warming. Methods include increasing substituting renewable energy for fossil fuel energy sources. The following are primary means to reduce fossil fuel emissions:
 - 1. Building electrification versus use of fossil fuels.
 - 2. Power generation via solar energy.
 - 3. Reduction in the fossil fuel emissions from transportation
- C. California Health and Safety Code Sections 17922, 17958, 17958.5, 17958.7, and 18941.5 authorize the City to make local amendments to the provisions in the California Building Standards Code upon express findings that the local amendments are reasonably necessary due to local climatic, geological, topographical, and/or environmental conditions.
- D. California Health and Safety Code Section 17958(b), amended June 30, 2025, prohibits a city or county from making changes or modifications applicable to residential units in the provisions pursuant to Section 17922 and published in the California Building Standards Code or the other regulations thereafter adopted pursuant to Section 17922 or make changes or modifications in those requirements upon express findings pursuant to Sections 17958.5 and 17958.7, unless one of six specific criteria is met. The following is noted:
 - 1. This ordinance contains reach codes and local amendments to the CBC that are applicable to residential units.
 - 2. The City has previously adopted local amendments and reach codes applicable to residential units that were in effect prior to September 30, 2025.
 - 3. There are no significant or substantive changes to the City of Brisbane's previously adopted local amendments and reach codes applicable to residential units contained within this ordinance.
 - 4. Pursuant to California Health and Safety Code Section 17958(b)(1), the changes or modifications contained within this ordinance are substantially equivalent to local amendments that were previously adopted and filed by the City of Brisbane City Council, were in effect prior to September 30, 2025, and therefore may be readopted.

- E. By reason of the following climatic, geological, topographical, and environmental conditions, summarized in Exhibit A attached and incorporated to this ordinance, it is necessary to adopt certain local amendments to the CBC in order to provide a high level of fire, health, and life safety for all persons who live and work within the City of Brisbane and to adequately protect both public and private property within the City:
1. The City of Brisbane is located along the eastern slope of San Bruno Mountain, immediately adjacent to a protected habitat conservation area which is subject to wildland fires due to existing vegetation and a temperate climate with dry summer months. These factors create a substantial safety hazard to nearby residences and the natural environment. The City's existing development and vacant sites along eastern slope of San Bruno Mountain may be subject to slope movement resulting in potential hazards related to slope stability.
 2. The City regularly experiences strong winds, with average velocities ranging from approximately 15 to 25 miles per hour and reaching high velocities of 70 miles per hour and these winds may significantly contribute to the spread of fire and increase the difficulty of fire suppression in the City or otherwise impact structures, such as patio covers.
 3. The City is located near the San Andreas Fault and is subject to seismic activity that could potentially result in ground shaking and damage to structures, via shaking, slope failure, and liquefaction and potentially ignite fires throughout the City. The reduction of natural gas infrastructure would reduce fire hazards in buildings near highly combustible wildland areas and hazards associated with gas leaks during seismic events.
 4. Certain hillside areas of the City contain narrow, winding streets, with steep grades and congested parking and traffic, making access difficult for fire apparatus and equipment in the event of an emergency. Numerous dwellings located within the upper hillsides can only be reached by means of private access ways which may not be adequately constructed or maintained for access by Fire Department vehicles.
 5. Brisbane's small residential lots on steep hillsides pose hazards of accidents associated with swimming pools due to the close proximity between the swimming pools and residences.
 6. Brisbane has a predominance of small lots, with many being in range of 2,500 to 5,000 square feet, and sound transmission from one lot can readily impact neighboring lots. The close proximity of the lots on steep topography could also exacerbate the impacts in the event of a structural or grading failure.
 7. The City's topography, combined with its proximity to U.S. Interstate 101, which runs through its eastern edge, and its proximity to San Francisco International Airport (SFO), located approximately 2 to 3 miles to the south, results in sound transmission from these sources throughout the City.
 8. Brisbane has a large number of existing older buildings and structures, many of which were built without the benefit of building codes being in effect at the time, and the specific climatic, geological, and topographic conditions combine to create hazardous conditions to these structures.
 9. Brisbane, like the Bay Area and the state of California, is already suffering impacts of climate change in the form of droughts, air pollution, extreme heat, lowland flooding, wildfires and stagnating smoke, and these impacts will grow more severe if global greenhouse gas emissions are not significantly reduced. Construction of energy efficient

buildings and installation of renewable energy systems protects the public health and welfare by reducing air pollution, greenhouse gas emissions, average and peak energy demand, and adverse impacts from power outages.

10. Failure to address and significantly reduce greenhouse gas (GHG) emissions could result in rises in sea level, including in San Francisco Bay, that could put at risk City homes and businesses, public facilities, and Highway 101 (Bayshore Freeway), particularly the mapped Flood Hazard areas of the City.
 11. The burning of fossil fuels in gas appliances within buildings contributes to climate change and GHG emissions as well as poor air quality. All-electric new buildings benefit the health, safety, and welfare of Brisbane residents. Encouraging all-electric construction will reduce the amount of GHG emissions produced in Brisbane.
 12. The combustion of gas inside homes produces harmful indoor air pollution, specifically nitrogen dioxide, carbon monoxide, nitric oxide, formaldehyde, acetaldehyde, and ultrafine particles. These odorless and undetectable gas combustion pollutants can cause respiratory diseases, including increased risk of childhood asthma.
 13. Use of fossil fuel vehicles is a primary contributor to transportation emissions and availability of EV charging infrastructure is a critical component to EV adoption over the continued use of fossil fuel reliant vehicles. Additionally, provision of EV charging infrastructure is most cost effective as part of new development projects versus existing building/site retrofit projects.
 14. Electricity supplied by Peninsula Clean Energy is exceedingly clean and will become cleaner over time as the broader grid meets more stringent Renewable Portfolio Standard requirements and translate the clean energy benefits to electric vehicles and all-electric buildings.
- F. In 2024, Brisbane adopted an energy and GHG emissions reach code, which included provisions for energy performance standards in new construction, known as the City of Brisbane New Building Energy Performance Reach Code (Ordinance # 691), and the following is noted:
1. The City of Brisbane New Building Energy Performance Reach Code amended the 2022 California Energy Code.
 2. It is the intent of the City Council to eliminate natural gas emissions in new buildings where all electric infrastructure may be most practicably integrated, thereby reducing the environmental and health hazards produced by the consumption and transportation of natural gas.
 3. Scientific evidence has established that natural gas combustion, procurement and transportation produce significant greenhouse gas emissions that contribute to global warming and climate change.
 4. This Reach code is reasonably necessary because of health and safety concerns as City residents suffer from asthma and other health conditions associated with poor indoor and outdoor air quality exacerbated by the combustion of natural gas.
 5. Using electric heating and cooling infrastructure in new buildings fueled by less greenhouse gas intensive electricity is linked to significantly lower greenhouse gas emissions and is cost competitive because of the cost savings associated with all-electric designs that avoid new gas infrastructure.
 6. The most cost-effective time to integrate electrical infrastructure is in the design phase of a building project because building systems and spaces may be designed to optimize the

performance of electrical systems and the project can take full advantage of avoided costs and space requirements from the elimination of natural gas piping and venting for combustion air safety.

7. By reason of express findings summarized in Exhibit A, it is necessary to reaffirm adoption of Brisbane's 2024 New Building Energy Performance Reach Code again, as soon as new performance standards are released.
 8. Pursuant to California Health and Safety Code Section 17958(b)(1), the changes or modifications contained within the City of Brisbane New Building Energy Performance Reach Code are substantially equivalent to local amendments that were previously adopted and filed by the City of Brisbane City Council, were in effect prior to September 30, 2025, and therefore may be readopted.
- G. In 2019, Brisbane adopted an energy and GHG emissions reach code, which included EV charger and EV parking regulations for new development projects, known as the City of Brisbane Electric Vehicle Infrastructure Ordinance. It was readopted in 2022 (Ordinance #675) and minor amendments were made adopted in 2024 (Ordinance # 691); the following is noted:
1. Use of fossil fuel vehicles is a primary contributor to transportation emissions and availability of EV charging infrastructure is a critical component to EV adoption over the continued use of fossil fuel reliant vehicles. Additionally, provision of EV charging infrastructure is most cost effective as part of new development projects versus existing building/site retrofit projects.
 2. The provisions within Brisbane's EV Infrastructure Ordinance exceed the EV infrastructure provisions required by the 2025 California Building Standards Code as well as the latest EV infrastructure reach codes proposed by the Bay Area Reach Codes Coalition.
 3. By reason of express findings E.13 and E.14 noted above, it is necessary to reaffirm adoption of Brisbane's amended 2019 Electric Vehicle Infrastructure Ordinance again in 2025.
 4. Pursuant to California Health and Safety Code Section 17958(b)(1), the changes or modifications contained within the City of Brisbane Electric Vehicle Infrastructure Ordinance are substantially equivalent to local amendments that were previously adopted and filed by the City of Brisbane City Council, were in effect prior to September 30, 2025, and therefore may be readopted.

SECTION 2: Section 15.04.010 of the Brisbane Municipal Code is amended to read as follows:

15.04.010 Purpose and authority.

The purpose of this chapter is to adopt by reference the 2025 Edition of the California Building Standards Code, Title 24 of the California Code of Regulations. This chapter is also adopted to provide minimum requirements and standards for the protection of the public safety, health, property and welfare of the City of Brisbane. This chapter is adopted under the authority of Government Code Section 38660 and Section 50022.2 and Health and Safety Code Section 18941.5.

SECTION 3: Section 15.04.040 of the Brisbane Municipal Code is amended to read as follows:

15.04.040 Adoption of construction codes.

- A. Title 24 of the California Code of Regulations, 2025 Edition of the California Building Standards Code, is hereby adopted by reference and incorporated in this code, including the following parts:
1. 2025 California Administrative Code, Title 24, Part 1.
 2. 2025 California Building Code, Volumes 1 and 2, based on the 2024 International Building Code (ICC), Title 24, Part 2, including Appendix G Flood Resistant Construction, Appendix I Patio Covers, and Appendix J Grading.
 3. 2025 California Residential Code, based on the 2024 Edition International Residential Code (ICC), Title 24, Part 2.5, including Appendix BF Patio Covers, Appendix BO Existing Building and Structures, Appendix BG Sound Transmission, and Appendix CI Swimming Pool Safety Act.
 4. 2025 California Electrical Code, based on the 2023 Edition National Electric Code as published by the National Fire Protection Association (NFPA), Title 24, Part 3.
 5. 2025 California Mechanical Code, based on the 2024 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials (IAPMO), including all appendix chapters, Title 24, Part 4.
 6. 2025 California Plumbing Code, based upon the 2024 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials (IAPMO), including all appendix chapters, Title 24, Part 5.
 7. 2025 California Energy Code, Title 24, Part 6.
 8. 2025 California Historical Building Code, Title 24, Part 8.
 9. 2025 California Wildland-Urban Interface Code, Title 24, Part 7
 10. 2025 California Fire Code, Title 24, Part 9, and modifications thereof, see Chapter 15.44 of this title.
 11. 2025 California Existing Building Code based on the 2024 International Existing Building Code Edition, published by the International Code Council, together with those omissions, amendments, exceptions and additions thereto as amended in Part 10 of the California Building Standards Code, California Code of Regulations Title 24.
 12. 2025 California Green Building Standards Code, Title 24, Part 11.
 13. 2025 California Referenced Standards Code, Title 24, Part 12.
- B. The 2024 International Property Maintenance Code is hereby adopted by reference and incorporated in this code.

SECTION 4: Section 15.04.043 of the Brisbane Municipal Code is amended to read as follows:

15.04.043 Amendments to the California Building Standards Code

The 2025 California Building Code (CBC), California Residential Code (CRC), and the 2024 International Property Maintenance Code (IPMC) are hereby amended as follows:

(Subsections A through J, no change).

SECTION 5: Chapter 15.44. of the Brisbane Municipal Code is amended by deleting the existing text and replaced with the following:

Chapter 15.44 FIRE PREVENTION CODE

15.44.010 Adoption of fire prevention code.

The Fire Prevention Code for the City of Brisbane shall be the 2024 Edition of the International Fire Code and the 2025 Edition of the California Fire Code, including Appendices B, C, D, F, and L (collectively, hereinafter referred to as the "Fire Code"), as promulgated by the International Code Council, and the same is hereby adopted and incorporated herein by reference, subject to the modifications as contained in this Chapter 15.44. Two (2) copies of the fire code have been filed for use and examination by the public, one copy being located at Brisbane City Hall and the other copy being located at the fire administration office.

15.44.020 Title of chapter.

This chapter shall be known as the "fire prevention code of the city" for the administration and enforcement of the fire code.

15.44.030 Section 104.3 amended—Applications and permits.

Section 104.3 of the fire code is amended by adding the following paragraphs at the end of said section:

Except as otherwise determined by the Fire Marshal, plans submitted in support of an application for a building permit to construct all buildings or structures within the City of Brisbane shall be submitted to the Fire Department for review and approval to determine conformance with applicable fire and life safety requirements.

No portion of any equipment intended to be covered by earth or by enclosure within permanent portions of a building or structure shall be enclosed until inspected and approved by the Fire Marshal, or appointed Fire Department staff. An inspection shall be requested prior to covering or enclosing of any such equipment. Such request shall be made not less than forty-eight (48) hours prior to the estimated time of the desired inspection.

15.44.040 Section 105.6.26 added—Permit fees.

Section 105.6.26 is added to the fire code, to read as follows:

105.6.26 Permit fees. The Fire Department shall be authorized to charge such fees and costs for services performed pursuant to the Fire Code as may be established from time to time by ordinance or resolution of the City Council.

15.44.050 Section 503.2.5 amended—Dead ends.

Section 503.2.5 of the fire code is amended by adding the following paragraph to the end of said section:

Dead-end fire apparatus access roads in excess of one hundred fifty feet (150') in length shall be provided with a minimum turnaround clear radius of fifty-two feet (52'), or other turnaround as approved by the Fire Marshal.

15.44.060 Section 503.3 amended—Marking.

Section 503.3 of the fire code is amended by adding the following paragraph to the end of said section:

Where fire lanes on private property have been designated by the Fire Marshal, curbs shall be painted red on the side or sides of the street or access route where parking is prohibited and no parking signs or other appropriate notice prohibiting obstructions, as approved by the Fire Marshal, shall be provided and maintained by the owner. No parking signs shall read as follows:

FIRE LANE

NO PARKING OR STOPPING

CVC SEC. 22500.1

PARKED VEHICLES MAY BE TOWED

AT VEHICLE OWNER'S EXPENSE

15.44.070 Section 507.5.7 added—Fire hydrants and water supply.

Section 507.5.7 is added to the fire code, to read as follows:

507.5.7 Hydrants. All new fire hydrants shall be UL listed, or equivalent, wet barrel type having a minimum of two 2 ½" and one 4 ½" outlets, all equipped with national standard threads (Clow 860, or approved equivalent). The minimum fire service main size permitted is six inches (6").

15.44.080 Section 903 amended—Automatic sprinkler systems.

Section 903 of the fire code is amended in its entirety to read as follows:

903 Automatic fire extinguishing systems.

- (a) Notwithstanding any other provisions of this code or any other code or ordinance of the City of Brisbane, automatic fire sprinkler systems, approved by the fire marshal, shall be installed in the following buildings and structures that are classified as new construction:
 - 1. For all occupancies except R-3 occupancies: Any new building or structure, regardless of size, except stand alone, uninhabitable buildings, garages and sheds having a floor area of less than four hundred (400) square feet.
 - 2. For all R-3 occupancies: Any new single-family or duplex structure, excluding any detached accessory structure that does not constitute habitable space having a floor area of less than four hundred (400) square feet.
- (b) When additions or alterations made to an existing building fall within the requirements under Brisbane Municipal Code Chapter 15.10, an automatic fire sprinkler system shall be provided for the entire building.
- (c) Other Areas. An automatic fire sprinkler system shall be installed in all garbage compartments, rubbish and linen chutes, linen rooms, incinerator compartments, dumb waiter shafts, and storage rooms when located in all occupancies except Group R, Division 3. An accessible indicating shut off valve shall also be installed.
- (d) Condominium Conversions. An automatic fire sprinkler system shall be installed for all condominium conversions.
- (e) Where automatic fire sprinkler systems are required to be installed, the following additional requirements shall also be satisfied, as applicable:
 - 1. A minimum of three (3) copies of plans and specifications for automatic sprinkler installations, plus water supply calculations, shall be provided to the fire department for review and approval prior to commencement of the installation work.
 - 2. All required automatic sprinkler systems shall be approved by the fire department.
 - 3. All acceptance tests and such periodic tests as required by the fire marshal or pursuant to NFPA Pamphlets No. 13, 13D, 13R and/or Subchapter 5, Title 19, California Code of Regulations, shall be conducted and, where applicable, witnessed by a representative of the fire department.

4. An approved exterior visual fire alarm device may be required for buildings that have numerous fire department connections (FDCs). Type and locations will be determined by the fire department. Such visual alarm devices are not to replace the exterior audible device, but to assist fire suppression personnel as to location(s) of systems which require pumping operations.

15.44.090 Section 5608.1 amended—Fireworks prohibited.

Section 5608.1 of the fire code is amended by adding the following paragraph to the end of the first paragraph:

The possession, storage, sale, use or discharge of fireworks including California State Fire Marshal approved "safe and sane" fireworks are prohibited within the City of Brisbane.

15.44.100 Section 904.2 amended—Where required.

Section 904.2 of the fire code is amended by adding the following subsection after subsection 904.2.2 Commercial hood and duct systems:

904.2.3 Floor markings. The location(s) of all cooking appliances that are protected by an approved automatic fire extinguishing system shall be permanently identified either by a wall mounted "approved" appliance floor plan or marked on the floor in a manner approved by the Fire Marshal.

15.44.110 Section 907.8.1 amended—Maintenance required.

Section 907.8.1 of the fire code is amended by adding the following paragraph at the end of said section:

Owners and operators of group R-1 occupancies shall provide documentation to the Fire Department, such as annual inspection forms, which confirm that all smoke detection devices and equipment within apartment units are installed and are in good operating condition.

15.44.120 Section 304.1.5 added—Removal of invasive species, waste materials and combustible vegetation.

Section 304.1.5 is added to the fire code, to read as follows:

304.1.4 Removal of invasive species, waste materials and combustible vegetation.

- (a) For purposes of this Section 301.1.5, the following definitions apply:

"Invasive species" means any plant species that is non-native to the ecosystem under consideration and whose introduction causes, or is likely to cause, economic or environmental harm to human health.

"Person" shall mean an owner of any property within the City of Brisbane excepting the City of Brisbane, the Successor Agency of the Redevelopment Agency of the City of Brisbane and the Brisbane Housing Authority.

"Well maintained" means property that is maintained in such a way as to prevent a fire from rapidly spreading including, but not limited to, appropriately watered lawns, ground cover plants, and ornamental shrubbery and trees that are sufficiently spaced, pruned, and free of all dead or dying material.

- (b) Notice to Remove. The Division of Fire Prevention is authorized to notify any person owning property within the City of Brisbane or its jurisdiction, or the agent of such person, to properly dispose of invasive species and such wastepaper, hay, grass, straw, weeds, litter, combustible or flammable waste, brush, waste petroleum products, blackberry vines and other growth or rubbish of any kind located on such person's property which is dangerous

to public safety, health or welfare or is deemed a fire hazard by the Division of Fire Prevention. Such notice shall inform the person or the person's agent that should the invasive species, wastepaper, hay, grass, straw, weeds, flammable vegetation, brush, litter, combustible or flammable waste, waste petroleum products, blackberry vines and other growth or rubbish of any kind not be removed as required, then it will be removed by the City and the cost of said removal shall in accordance with this chapter be assessed as a lien on the property, to be collected with the next regular tax bill.

Such notice shall be by certified mail, addressed to the person owning the property at the person's last known address, as revealed by the tax rolls, and such additional address as may be known by the Division of Fire Prevention.

- (c) Action Upon Non-compliance. Upon failure, neglect or refusal of any person owning property or the person's agent so notified to properly dispose of invasive species and such wastepaper, hay, grass, straw, weeds, litter, combustible or flammable waste, brush, waste petroleum products, blackberry vines or other growth or rubbish of any kind dangerous to the public health, safety and welfare within fifteen (15) days after receipt of written notice provided for in subsection (b) above, or within fifteen (15) days after the date of such notice in the event the same is returned to the Division of Fire Prevention because of its inability to make delivery thereof, provided the same was properly addressed to the last known address of such person or agent, as provided in subsection (b) of this section, the Division of Fire Prevention is hereby authorized to refer this non-compliance to the City Manager to have the City pay for disposing of such invasive species, wastepaper, hay, grass, straw, weeds, litter, combustible or flammable waste, brush, waste petroleum products, blackberry vines and other growth or rubbish that endangers property or is liable to be fired.
- (d) Charge Included in Tax Bill. When the City has effected the removal of dangerous or hazardous conditions from property as noted in subsection (b) or has paid for its removal, the actual cost thereof, plus accrued interest at the rate of ten percent (10%) per annum from the date of the completion of the work, if not paid for by such person prior thereto, shall be charged to the person owning such property on the next regular tax bill forwarded to such person, and said charge shall be due and payable by said person at the time of payment of such bill.
- (e) Property Including Buildings, Structures and Acreage Maintained.
 - 1. Any person who owns, leases, controls, operates or maintains any building or structure in, upon, or adjoining any mountainous area or forest-covered lands, brush-covered lands or grass covered lands, or any land covered with flammable material shall maintain around and adjacent to such building or structure a fire break for a distance of not less than thirty (30) feet or to the property line, whichever shall be less.
 - 2. Any person who owns unimproved acreage that is two acres or less shall maintain a one hundred (100) foot fire break around the perimeter of such acreage. Any person who owns unimproved acreage that is more than two acres, but less than four acres shall maintain a one hundred (100) foot clearance along each property line and a one hundred (100) foot crosscut break such that there is one hundred (100) feet of clearance around every three acres, Any person who owns unimproved acreage four acres or greater shall maintain a one hundred (100) foot clearance along each property line and a one hundred (100) foot crosscut break every three acres. Trees within the 100-foot clearance or within the crosscut break (i) that are less than six feet in height shall be removed entirely from the acreage, (ii) that are ten feet in height or greater must be limbed such that the lowest limb is not less than six (6) feet from the ground, and (iii) that are dead shall be removed completely from the acreage.

3. Within the areas described in paragraph 2 of subsection (e), dead or dying grass shall be mowed to a maximum of four inches in height, brush shall be cut to within several inches of the surface and vegetation shall be well maintained.
- (f) The Fire Chief or the Fire Chief's designee has the discretion to direct the maintenance requirements of subsection (e) or to modify the requirements of subsection (e) due to terrain or environmental concerns.
- (g) Notwithstanding that a person has taken action to remove the flammable materials described in subsection (b), if flammable materials re-occur on the property, such person shall remove such materials as provided in this section.
- (h) Remedies Cumulative. The remedies set forth in this section are in addition to any other remedies available to the City as set forth in its ordinances and resolutions and the statutes of the State of California.
- (i) Other Regulations. In addition to the remedies set forth herein, the City Council may adopt such other additional, appropriate resolutions and ordinances establishing procedures and regulations for the regulation, control and abatement of invasive species, waste materials, weeds and other matters constituting a fire and/or safety hazard. The City Manager or the City Manager's designee may promulgate regulations to implement and carry out the purposes of this Ordinance, Other regulations concerning vegetation management and fire prevention apply to properties within the San Bruno Mountain Habitat Conservation Plan Area, including the need for a person engaging in vegetation management and fire prevention to obtain a permit from the County of San Mateo before engaging in such activity."

15.44.130 Section 710 added—Roof coverings.

Section 710 is added to the fire code, to read as follows:

710 Roof coverings. Roof coverings on all buildings shall be fire retardant non-wood materials and shall comply with the standards of the California Building Code, Class A or B, prepared or built-up roofing. Re-roofing of existing buildings which occurs within any twelve (12) month period shall comply with the foregoing requirement if the re-roofing involves fifty percent (50%) or more of the roof area in the case of a non-wood roof or ten percent (10%) or more of the roof area in the case of a wood roof.

15.44.140 Section 5301.1 amended—Scope.

Section 5301.1 of the fire code is amended by adding the following paragraph at the end of the first paragraph:

The storage of compressed natural gas is prohibited in all areas of the City except for the following subareas as identified in the General Plan for the City of Brisbane: Northeast Bayshore, Southeast Bayshore, Crocker Park, Beatty, and the Baylands when the storage container or tank is located at least 200 (two hundred) feet from the closest property line of a property occupied by a residence or school. Notwithstanding the foregoing, the Fire Marshal may grant a permit for storage of compressed natural gas in other areas of the City if the Fire Marshal determines, in each case, that the storage is required for the conduct of a lawful use upon the property, will not constitute a safety hazard, and will otherwise comply with all applicable provisions of this Code and all other ordinances, rules and regulations of the City. The Fire Marshal may impose such conditions and requirements upon the issuance of the permit as the Fire Marshal deems necessary or appropriate.

15.44.150 Section 5601.2 amended—General.

Section 5601.2 of the fire code is amended by adding the following paragraph at the end of said section:

The storage of explosives and blasting agents is prohibited in all areas of the City, except that the Fire Marshal may grant a permit to allow such storage if the Fire Marshal determines, in each case, that the storage is required for the conduct of a lawful use upon the property, will not constitute a safety hazard, and will otherwise comply with all applicable provisions of this Code and all other ordinances, rules and regulations of the City. The Fire Marshal may impose such conditions and requirements upon the issuance of the permit as the Fire Marshal deems necessary or appropriate.

15.44.160 Section 5704.1 amended—General.

Section 5704.1 of the fire code is amended by adding the following paragraph at the end of said section:

The storage of flammable or combustible liquids in outside aboveground tanks is prohibited in all areas of the City except for the following subareas as identified in the General Plan for the City of Brisbane: Northeast Bayshore, Southeast Bayshore, Crocker Park, Beatty, and the Baylands when the storage container or tank is located at least 200 (two hundred) feet from the closest property line of a property occupied by a residence or school. Notwithstanding the foregoing, the Fire Marshal may grant a permit for such storage in other areas of the City if the Fire Marshal determines, in each case, that the storage is required for the conduct of a lawful use upon the property, will not constitute a safety hazard, and will otherwise comply with all applicable provisions of this Code and all other ordinances, rules and regulations of the City. The Fire Marshal may impose such conditions and requirements upon the issuance of the permit as the Fire Marshal deems necessary or appropriate.

15.44.170 Section 6104.2 amended—Maximum capacity within established limits.

Section 6104.2 of the fire code is amended by adding the following paragraph at the end of the first paragraph of said section:

The aggregate storage of liquefied petroleum gas at any one installation in excess of five hundred (500) gallons (1893 L) is prohibited in all areas of the City except for the following subareas as identified in the General Plan for the City of Brisbane: Northeast Bayshore, Southeast Bayshore, Crocker Park, Beatty, and the Baylands when the storage container or tank is located at least 200 (two hundred) feet from the closest property line of a property occupied by a residence or school. Notwithstanding the foregoing, the Fire Marshal may grant a permit for such storage in other areas of the City if the Fire Marshal determines, in each case, that the storage is required for the conduct of a lawful use upon the property, will not constitute a safety hazard, and will otherwise comply with all applicable provisions of this Code and all other ordinances, rules and regulations of the City. The Fire Marshal may impose such conditions and requirements upon the issuance of the permit as the Fire Marshal deems necessary or appropriate.

15.44.180 Section 914.3.9 added—Firefighter breathing air replenishment system.

Section 914 of the fire code is amended by adding the following paragraph:

Section 914.3.9 Firefighter breathing air replenishment system. All Group B and Group R occupancies, each having floors used for human occupancy located more than seventy-five feet (75') above the lowest level of fire department vehicular access, shall be equipped with an approved rescue air replenishment system as per Appendix L. Such a system shall provide an adequate pressurized fresh air supply through a permanent piping system for the replenishment of portable life sustaining air equipment carried by fire department, rescue, and other personnel in the performance of their duties. Location and specifications or access stations to, and the installation of, such air replenishment systems shall be in accordance with the requirements of the fire chief.

15.44.190 Section 903.2.22 added—Sprinkler protection of car stackers.

Section 903.2.22 of the fire code is added to read:

Sections 903.2.22 Purpose: To establish requirements for sprinkler protection of car stackers not specifically addressed in NFPA 13.

Section 903.2.22 - Car Stackers

Parking garage areas containing car stackers shall be protected by an automatic wet-pipe sprinkler system designed to Extra Hazard Group 2. In addition, non-extended coverage standard sidewall sprinklers listed for Ordinary Hazard shall be provided under each parking level, including the bottom level if the stacker is provided with a pit. Each sidewall sprinkler shall cover an area of 80 sq. ft. or less.

The area of application may be reduced from the required 2500 sq. ft. to as low as 1500 sq. ft. if

1. 1-hour fire rated walls are provided to separate the car stacker areas from the standard parking stalls,
2. The car stacker areas are divided up into 1500 sq. ft. areas via 1-hour fire rated walls, and
3. One-hour fire rated walls are provided to separate the car stacker areas from any other areas in the garage.

One-hour fire rated walls are not required in the driveway areas. For the hydraulic calculation, flow from all sprinklers, upright or pendent sprinklers at ceiling and all sidewall sprinklers at all levels, located in the area of application shall be included in the calculation.

15.44.193 Amendment to Appendix D of Section D101—Definition—Fire apparatus access road.

Appendix D of the Fire Code is amended by adding Section D101.2 to read as follows:

D101.2—Definition Fire Apparatus Access Road. A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as but not limited to fire lane, public street, private street, parking lot lane, access roadway and driveway.

15.44.197 Amendment to Appendix D of Section D102—Access road exceptions.

An Exception is added to Appendix D of Section D102 of the fire code to read as follows:

Exception: When a fire department access road cannot be installed due to location on the property, topography, waterways, nonnegotiable grades, or other similar conditions the authority having jurisdiction shall be authorized to require fire protection features in addition to those already required.

15.44.200 Section D102.2 added—Access to exterior door.

Section D102.2 of the fire code is added to read as follows:

Section D102.2 Fire department access shall extend to within 50 feet (15 m) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building.

15.44.210 Section D102.3 added—Large building access.

Section amendment Appendix D Section D102.

Section D102.3 of the fire code is added to read as follows:

Large Buildings—Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 ft. (46 m) from fire department access roads as measured by an approved route around the exterior of the building or facility.

15.44.220 Section D102.4 added—Access road clearance.

Section amendment Appendix D Section D102.

Section D102.4 is added to read as follows:

Fire department access roads shall have an unobstructed vertical clearance of not less than 13 ft. 6 in. (4.1 m.).

15.44.230 Reserved.

15.44.240 Reserved.

15.44.250 Amendment of Appendix D, Section D103.7 added—Marking.

Appendix D of the fire code is amended by adding Section D103.7 to read:

D103.7—Marking. Where fire lanes on private property have been designated by the Fire Marshal, curbs shall be painted red on the side or sides of the street or access route where parking is prohibited and no parking signs or other appropriate notice prohibiting obstructions, as approved by the Fire Marshal, shall be provided and maintained by the owner.

15.44.260 Violations of fire code—Penalties.

The violation of any of the provisions of the fire code adopted by this chapter, or any permit issued thereunder, shall constitute a misdemeanor, punishable by the fines, penalties and enforcement provisions set forth in Chapters 1.14, 1.16 and 1.18 of this code.

SECTION 6: If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held by a court of competent jurisdiction to be invalid or unconstitutional, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council of the City of Brisbane hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases may be held invalid or unconstitutional.

SECTION 7. The City Council finds and determines that the adoption of this Ordinance is exempt from review under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines, Section 15308, Actions by Regulatory Agencies for Protection of the Environment.

SECTION 8: This Ordinance shall be in full force and effect when the 2025 Edition of the California Building Code becomes effective state-wide on January 1, 2026.

* * *

The above and foregoing Ordinance was regularly introduced and after the waiting time required by law, was thereafter passed and adopted at a regular meeting of the City Council of the City of Brisbane held on the _____ day of _____, 2025, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Mayor Cliff Lentz

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

Exhibit A**Findings Supporting Local Amendments to Title 24 of the California Code of Regulations, 2025
Edition of the California Building Standards Code**

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions in the uniform codes that are published in the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions in the uniform codes and published in the California Building Standards Code 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. Similar findings must be made to adopt model code appendices. Amendments to provisions not regulating buildings used for human habitation, including amendments made only for administrative consistency, do not require findings.

Pursuant to California Health and Safety Code Section 17958(b)(1), the changes or modifications specified below are substantially equivalent to local amendments that were previously adopted and filed by the City of Brisbane City Council, were in effect prior to September 30, 2025, and therefore may be readopted.

Code: California Building Code					
Section(s)	Title	Add	Delete	Amended	Justification (see Key)
102.6.3	Buildings or structures moved into city	X			B, C
102.7	Additions, Alterations, and Major Rebuilds to Existing Buildings	X			B, C
1505.1.2	Roof coverings within all other areas other than Fire Hazard Severity Zones or Wildland-Urban Interface			X	B, C
Appendix G	Flood Resistant Construction	X			B, C
Appendix I	Patio Covers	X			B, C
Appendix J	Grading	X			B, C
Code: California Residential Code					
Section(s)	Title	Add	Delete	Amended	Justification (see Key)
Appendix BF	Patio Covers	X			B, C
Appendix BO	Existing Buildings and Structures	X			B, C
Appendix BG	Sound Transmission	X			C
Appendix CI	Swimming Pool Safety Act	X			B, C
Code: California Fire Code					
Section(s)	Title	Add	Delete	Amended	Justification (see Key)
104.3	Application and permits			X	B, C
105.6.26	Permit fees	X			B, C
503.2.5	Dead ends			X	B, C
503.3	Marking			X	B, C
507.5.7	Fire hydrants and water supply	X			B, C

Code: California Fire Code					
Section(s)	Title	Add	Delete	Amended	Justification (see Key)
903	Automatic sprinkler systems			X	B, C
5608.1	Fireworks prohibited			X	B, C
904.2	Floor markings			X	B, C
907.8.1	Maintenance required			X	B, C
304.1.5	Removal of invasive species, waste materials and combustible vegetation	X			C
710	Roof coverings	X			B, C
5301.1	Scope (storage of compressed natural gas)			X	B, C
5601.2	General (storage of explosives and blasting agents)			X	B, C
5704.1	General (storage of flammable or combustible liquids in outside aboveground tanks)			X	B, C
6104.2	Maximum capacity within established limits			X	B, C
914.3.9	Firefighter breathing air replenishment system	X			B, C
903.2.22	Sprinkler protection of car stackers	X			B, C
D101	Fire apparatus access road (definition)			X	B, C
D102	Access road exceptions			X	B, C
D102.2	Access to exterior door	X			B, C
D102.3	Large building access	X			B, C
D102.4	Access road clearance	X			B, C
D103.7	Marking	X			B, C

Key:**A. Climatic**

The local amendments are justified on the basis of a local climatic conditions in Brisbane. Failure to address and significantly reduce greenhouse gas (GHG) emissions could result in rises in sea level, including in San Francisco Bay, that could put at risk City homes and businesses, public facilities, and Highway 101 (Bayshore Freeway), particularly the mapped Flood Hazard areas of the City. Electric vehicle (EV) charging infrastructure and elimination of the burning of fossil fuels used in gas appliances for the heating of buildings are key components in reducing GHG emissions.

EV charging installations can help the City of Brisbane reduce its share of the GHG emissions that contribute to climate change and contribute to the reduction of GHG emissions by supporting the demand for EVs and the associated charging infrastructure. Furthermore, electricity will become cleaner over time as utilities achieve more stringent Renewable Portfolio Standard requirements and translate the clean energy benefits to electric vehicles.

Natural gas combustion and gas appliances emit a wide range of air pollutants, such as carbon monoxide (CO), nitrogen oxides (NO_x, including NO₂), particulate matter (PM), and formaldehyde, which according to a UCLA study, have been linked to various acute and chronic health effects, and additionally exceed levels set by national and California-based ambient air quality standards. The burning of fossil fuels used in gas appliances for the heating of buildings contributes to climate change and GHG emissions. All-electric new buildings benefit the health, safety, and welfare of Brisbane residents. Encouraging all-electric construction without gas infrastructure will reduce the amount of GHG emissions produced in Brisbane.

B. Geological

The local amendments are justified on the basis of local geological conditions in Brisbane. The City is located near the San Andreas Fault and is subject to seismic activity that could result in ground shaking and damage to structures, via shaking, slope failure, and liquefaction and potentially ignite fires throughout the City. A powerfully damaging earthquake similar to the 1906 earthquake or 1989 Loma Prieta earthquake is rare but likely to occur in the next 30 years. Smaller magnitude earthquakes are also likely to occur, potentially producing significant local damage. The reduction of natural gas infrastructure in new buildings would reduce the hazards associated with gas leaks during seismic events.

C. Topographical

The local amendments are justified on the basis of local topographic conditions in Brisbane. The City of Brisbane is located at the western edge of the San Francisco Bay and along the eastern flanks of San Bruno Mountain and is approximately 2 to 3 miles north of the San Francisco International Airport (SFO). The City has both existing development and vacant development sites in flood prone areas as well as areas that may be subject to slope movement in steep areas of the City. Many of the City's existing residential lots are small, with many being in range of 2,500 to 5,000 square feet, and located on steep hillsides.

The City's topography and location, adjacent to the San Francisco Bay, San Bruno Mountain U.S. Interstate 101, which runs through its eastern edge, and SFO, combined with its small residential lots present a number of hazards that include, but is not limited to flooding, slope stability, increased exposure to noise, and accidents associated with swimming pools due to the close proximity between the swimming pools and residences.

Furthermore, the City's hillside areas are constructed on the eastern slope of San Bruno Mountain which is immediately adjacent to a protected habitat conservation area subject to wildland fires due to existing vegetation, particularly chaparral, and a temperate climate with dry summer months. These wildland areas pose substantial risk to nearby residences and the natural environment. Brisbane also regularly experiences strong winds, with average velocities ranging from approximately 15 to 25 miles per hour and reaching high velocities of 70 miles per hour. These winds may significantly contribute to the spread of fire and increase the difficulty of fire suppression in the City or otherwise impact structures, such as patio covers.

The reduction of natural gas infrastructure in new buildings and the transition to electric appliances in existing residential buildings would reduce fire hazards in buildings near highly combustible wildland areas. Furthermore, these areas contain narrow, winding streets, with steep grades and congested parking and traffic, making access difficult for fire apparatus and equipment in the event of emergency. Numerous dwellings located within the upper hillsides can only be reached by means of private access ways which may not be adequately constructed or maintained for access by Fire Department vehicles.

D. Environmental

The local amendments improve the public health and welfare by promoting the environmental and economic health of the City through the design, construction, maintenance, operation and deconstruction of buildings and sites by incorporating green practices into all development. The local amendments are consistent with the goals of the Green Building Code and help achieve the following goals:

- Reduce the use of natural gas in buildings which improves indoor environmental quality and health;
- Increase the energy efficiency of new and existing structures;
- Reduce the use of natural gas which will reduce the natural gas infrastructure and fire risk over time;
- Promote the health and productivity of residents, workers, and visitors to the city; and
- Increase electric vehicle charging infrastructure to encourage electric vehicle adoption which in turn reduces greenhouse gas emissions and improves air quality