Appendix N

Wildfire Evaluation

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MEMORANDUM

From:	Dudek Fire Protection Planning Team, Michael Huff, Principle
Subject:	Wildfire Hazard and Evacuation Evaluation
Date:	July 2, 2025
Attachment(s):	Figure 1 – Project Location
	Figure 2 – Site Plan
	Figure 3 – FHSZ
	Figure 4 – Fire history
	Figure 5 – Fuel Modification Equivalency
	Figure 6 – Evacuation Routes
	Figure 7 – Evacuation Zones
	Attachment 1 – CBC Chapter 7A Ignition Resistant Construction Requirements

This wildfire hazard evaluation provides an assessment of the Buena Vista Project's (Project) consistency with applicable fire and building codes, California Environmental Quality Act (CEQA) requirements, and California Attorney General's Office "*Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act*" along with industry best practices for wildfire and evacuation safety.

1 Buena Vista Project

1.1 Description

The Project proposes a mixed-use residential and commercial development on an approximately 7.87-acre site within the Central City North Community Plan area of the City of Los Angeles. As shown on Table 1, the Project would construct 986 residential units including 200 affordable units, approximately 15,000 square feet of retail uses; 23,800 square feet of restaurant uses, and 116,610 square feet of outdoor trellis/overhang areas (circulation and balconies)[1]. The South Parcel would provide 631 residential units comprised of two live-work units, 106 studio units, 293 1-bedroom units, 195 2-bedroom units, and 35 3-bedroom units. The North Parcel would provide 355 residential units comprised of five live-work units, 38 studio units, 175 1-bedroom units, 112 2-bedroom units, and 25 3-bedroom units. In total, the Project would include up to 1,245,536 square feet of floor area on a 342,678-square-foot (post-dedication) Project Site, resulting in a FAR of 3.63:1.

The Project would include the subdivision of a curvilinear shaped Project Site that runs parallel to the Metro A Line tracks and the Los Angeles State Historic Park that are located generally to the southeast, and North Broadway that is located generally to the northwest, into four master ground lots as well as air space lots. The southern two master ground lots are herein referred to as the South Parcel, and the northern two master lots are herein referred to as

[1] The Los Angeles Department of Building and Safety may count the Project Site's approximately 116,610 square feet of outdoor trellis/overhang areas (circulation and balconies) as floor area. As such, these areas have been included in the total floor area for the Project.

the North Parcel (See Figure 1, Project Location). The South Parcel would be developed with a six-story podium connecting two buildings, Building 1, a 26-story building up to 343 feet 8 inches in height, and Building 2, a 22-story building up to 301 feet in height. The North Parcel would be developed with a two-story podium connecting two buildings, the North Building, a 15-story building up to 209 feet 4 inches, and the Courtyard Building, a six-story building up to 108 feet 8 inches in height. Additionally, the North Parcel would also include the Retail Block Building, a three-story building up to 72 feet 4 inches in height. Further, the Project would provide up to 931 parking spaces (including standard, compact, and stacked spaces) within a three-level partial subterranean garage on the South Parcel, and up to 546 parking spaces within three-level partial subterranean parking garage on the North Parcel, for a total of up to 1,477 vehicular parking spaces. Additionally, the Project would provide 80 short-term and 722 long-term bicycle parking spaces. The Project would include a total of approximately 132,949 square feet of maintained open space within the Project Site of which 45,377 square feet would be publicly accessible, privately operated, and maintained. The Central Greenspace would be constructed in the central portion of the Project Site connecting the North Parcel and South Parcel. The Central Greenspace links the North Parcel and South Parcel and would be vegetated with native trees and understory vegetation, with a continuous sidewalk for pedestrians along Broadway (See Figure 2, Site Plan). Project Floor area is further described in Table 1.

1.1.1 Project Location

The Project Site is located at 1251 North Spring Street and 1030–1380 North Broadway within the Central City North Community Plan of the City. The Metro A Line tracks and the Los Angeles State Historic Park are located generally to the southeast, and North Broadway is located generally to the northwest from the Project Site. The western portion of the South Parcel is located behind existing commercial uses that front North Broadway. The Project Site has a curvilinear shape, with Bishops Road and Savoy Street located across North Broadway near the center of the Project Site.

Local access to the Project Site is provided by North Broadway and North Spring Street via an access easement. Regional access to the Project Site is provided by the Harbor Freeway (State Route 110) and the Golden State Freeway (Interstate 5), which are located within 0.5 mile of the Project Site. The Project Site is served by a variety of public transit options provided by Metro, Los Angeles Department of Transportation (LADOT), Santa Clarita Transit, Antelope Valley Transit Authority, Torrance Transit, and Orange County Transportation Authority. The Project Site is also served by the Metro A Line Chinatown Station, located approximately 400 feet south of the Project Site, and Union Station, located approximately 0.65 mile southeast of the Project Site.

1.1.2 Surrounding Land Uses

The Project Site is located within an urbanized area and includes a mix of land uses located north of downtown Los Angeles within the vicinity of Chinatown neighborhood. The Project Site is adjacent to the Metro A Line tracks to the southeast. The South Parcel is located 400 feet south of the Metro A Line Chinatown Station. The Los Angeles State Historic Park (formerly Cornfield Park) contains 32 acres of active and passive open spaces and recreational amenities, located to the southeast of the Metro A Line tracks. The Capitol Milling Company is located south of the Project Site and includes retail uses, restaurants, and offices. Various industrial, commercial, and warehouse uses

Table 1. Proposed Floor Area

Land Use	Description	Floor Area (sf)
South Parcel		
Residential	631 units	706,854
Restaurant [a]		15,800
Retail		10,000
Outdoor Trellis/Overhang Areas (circulation and balconies) [b]		48,263
South Parcel total floor area		732,654
North Parcel		
Residential	355 du	383,272
Restaurant		8,000
Retail		5,000
Outdoor Trellis/Overhang Areas (circulation and balconies)		68,347
North Parcel total floor area		396,272
Project Total		
Total Residential	986 du	1,090,126
Total Restaurant		23,800
Total Retail		15,000
Total Outdoor Trellis/Overhang Areas (circulation and balconies)		116,610
Total Floor Area		**1,245,536**

Notes:
du = dwelling units
sf = square feet
[a] 5,000 square feet of floor area of restaurant uses would be located outdoors.
[b] The Los Angeles Department of Building and Safety may count the outdoor trellis/overhang areas (circulation and balconies) as floor area. Thus, these supporting circulation areas and balconies are included in the total floor area for the Project.

Source: Eyestone Environmental, 2024.

are located along the southeastern side of North Spring Street and along Baker Street. A channelized portion of the Los Angeles River is located approximately 575 feet east of the northeastern most portion of the Project Site. The South Parcel is largely located behind Mandarin Plaza commercial center, which includes one- and two-story commercial buildings and a two-level parking structure located along the frontage of North Broadway. Northwest of the Project Site, across North Broadway are various commercial uses, a high school, religious centers, surface parking lots, multi-family residences, and vacant lots. In addition, located across North Broadway is the approximately 600-acre Elysian Park, Radio Hill Gardens, and the Solano Canyon residential neighborhood, which includes single- and multi-family homes. Dodger Stadium is also located approximately 0.45 mile to the northwest of the Project Site.

1.2 Existing Project Site Conditions

The Project Site is approximately 7.87 acres (post-dedication) and is partially developed, with portions of the Project Site currently used for transportation operations and maintenance-related facilities, bus parking, and construction

staging. The Project Site's topography consists of a south-facing sparsely vegetated sloped area that spans from the North Parcel to the South Parcel until reaching the vicinity of Mandarin Plaza, at which point the South Parcel becomes mostly paved. The sloped area faces towards the Metro A Line tracks and the Los Angeles State Historic Park and consists mainly of bare ground with limited vegetation, containing remnants of concrete foundations/footings, and retaining walls. Chain link fencing is located along the perimeter of the Project Site between North Broadway and the Metro A Line tracks. The Project Site includes 20 existing on-site trees consisting of Canary Island date palm (Phoenix canariensis), Mexican fan palm (Washingtonia robusta), and desert fan palm (Washingtonia filifera) and three street trees consisting of jacaranda trees (jacaranda mimosafolia), none of which are protected under the City's Protected Tree and Shrubs Ordinance No. 186,873.

Existing access to the South Parcel is located via a gated driveway on North Broadway across from St. Peter's Italian Catholic Church as well as an existing easement from North Spring Street, which crosses under the elevated Metro A Line tracks at the southeastern corner of the South Parcel. The South Parcel is largely paved and partially developed with structures associated with transportation operations and maintenance-related facilities including an approximately 12,800-square-foot rectangular one-story metal auto repair building located in the southern portion of the South Parcel, with vehicle bays and roll-up doors, as well as a vehicle shelter/wash bay, trash enclosure, paved surface parking areas, paved outdoor storage yard, utility infrastructure, retaining walls, concrete foundations/footings, and fencing. Additionally, an approximately 2,132-square-foot addition to the rear of an existing off-site restaurant (the Golden Dragon Restaurant) and associated parking that encroaches onto the Project Site is located in the southwestern portion of the South Parcel. Access to the North Parcel is currently provided via two gated entryways along North Broadway, with one across from Solano Avenue and the other at the northeastern corner of the North Parcel. The North Parcel includes foundation remnants and graded areas, and is generally used for construction staging and bus parking. There are no existing buildings on the North Parcel.

2 Buena Vista Project Area Wildfire Environment

2.1 Fire Hazard Severity Zones

The Project Site lies within an area recently mapped as a primarily Very High Fire Hazard Severity Zone (VHFHSZ) with a very small portion in the South Parcel mapped as High Fire Hazard Severity Zone (HFHSZ), as designated by the Los Angeles Fire Department (LAFD) and the California Department of Forestry and Fire Protection (CAL FIRE) (See Figure 3, Fire Hazard Severity Zones). Fire hazard designations are based on topography, vegetation, and weather, amongst other factors. VHFHSZ designation does not indicate that an area is not safe for development. It does indicate that specific fire protection features that minimize structure vulnerability will be required, including Chapter 7A of the California Building Code (CBC) as adopted by reference with local amendments in the Los Angeles Building Code and provisions for maintained fuel modification zones, amongst others discussed herein. As realized throughout large areas of California, CAL FIRE's updated mapping has extended the VHFHSZ areas due to new model algorithms and the wind inputs that are increasing ember cast distances. Within Local Responsibility Areas (LRA), CAL FIRE has also mapped High and Moderate FHSZs, which were not previously mapped for these areas.

It is important to note that the Fire Hazard Severity Zone map evaluates "hazard," not "risk". The map is like flood zone maps, where lands are described in terms of the probability level of a particular area being inundated by floodwaters, and not specifically prescriptive of impacts. "Hazard" is based on the physical conditions that create a likelihood and expected fire behavior over a 30 to 50-year period without considering mitigation measures such as

building hardening, recent wildfire, or fuel reduction efforts. “Risk” is the potential damage a fire can do to the area under existing conditions, accounting for any modifications such as fuel reduction projects, defensible space, and ignition resistant building construction. High hazard does not result in high risk if the building or community mitigates the hazard.

While the Project is located in a designated VFHSZ, which occurs in a largely urbanized area, it will have significantly lower potential of actual loss than other older communities (such as Palisades and Altadena) and even the older buildings that occur within a vicinity. This reasoning is based upon the distinction between HAZARD (which the State categorizes) and RISK (which the state does not quantify).

HAZARD is a property of the potential fire behavior (flame length, crown fire occurrence, capacity to generate embers) in the likely mature vegetation of a given area. RISK, however, is the potential for structural loss from said fire. Thus, even if there is potential low fire hazard in a given area (expected low flame lengths), a given building might be at high risk of ignition if the physical characteristics of the property would facilitate structural ignition (e.g., flammable vegetation next to a building with wood siding).

Conversely (and more apropos to the Project), a building might be in a high-hazard area (potential exposure to ember generation) but may actually be at low risk of ignition if the building is built with ignition-resistant construction materials and adequate defensible space is provided around the building. This is especially true in the Project area where irrigated and maintained landscapes, large expanses of paving and roads, are provided over large areas and precludes unmaintained fuels near the buildings.

Projects within Very High Fire Hazard Severity Zones are required to comply with various construction standards including Chapter 49 of the California Fire Code which requires defensible space in the form of fuel modification zones (FMZs) to be installed around structures and compliance with Chapter 7A of the California building code which requires exterior construction methods and materials to resist ignition from wildfires. Fuel modification zones are buffers between the project and open space where fuel is gradually removed to starve an advancing fire. LAFD requires 200 feet of FMZ. The requirements of Chapter 7A can be found in Attachment 1.

2.2 Fire History

As demonstrated by Figure 4, Fire History, there have been four fires in the vicinity of the Project, with the latest occurring in 1981. The closest and most recent fire was in 1966 directly across from the northern structure. Fire History is utilized to generally determine if a Project is likely to be exposed to wildfire. Given the lack of fire in the area since 1981, it is likely that development of the area has led to faster detection and suppression of fires. Continued development, such as the Project, is likely to continue to reduce the probability of the Project being exposed to fire by eliminating available fuel and/or creating more access for Fire suppression crews.

2.3 Vegetation/Fuels

The Project site is presently vegetated with non-native grasses, weeds, and palm trees. The Project site is primarily infill and does not directly interface with off-site vegetation. Both the South and North Parcel will be surrounded by immediate adjacent areas including paved surfaces, structures, or Metro A-Line tracks. Broadway is approximately 75 feet in width and void of vegetation which could be fuel for an approaching fire, thereby acting as a fuel break that prohibits transmission of fire. The Metro A-Line easement is approximately 85 feet in width and also represents

a complete fuel break due to the complete removal of vegetation. The LA River and Metro tracks are nearly 400 feet across and runs north to west, just east of the northern portion of the Project, and are similarly absent of vegetation/fuel with an active water way, thereby providing a complete fuel break.

Beyond the immediate adjacencies, the South Parcel interfaces with the LA State Historic Park to the south which is a maintained and irrigated park. The North Parcel also interfaces with the LA State Historic Park to the south as well as Buena Vista Hill Elysian Park to the north across Broadway. The vegetation to the north of the North Parcel is within the Buena Vista Hill Elysian Park and is classified as Western Warm Temperate Urban Shrubland per Landfire[2], a federal wildfire resource providing landscape scale geo-spatial products, but appears to consist of mowed/maintained grass and sparse trees. The LA State Historic Park to the south is classified by Landfire as "developed" due to its maintenance and irrigation.

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (leaf size, branching patterns), and overall fuel loading. The existing vegetation on the Project site and to the south consists of grass and weeds and would be expected to burn quickly due to their small physical structure. The trees and grass in Elysian Park are well maintained and unlikely to ignite due to fuel moisture and separation of fuels yet unmitigated ignition could result in a slow-moving crown fire through the trees.

2.4 Terrain

At a project level, the terrain on and near the Project site is flat with a slight gradient from south to north up towards Broadway. The narrow portion in the center of the Project site is sloped from south to north, upwards from the Metro A-Line tracks. At a community level, the surrounding area to the north is hilly with a general downward gradient from north to south. The LA River and Metro tracks are nearly 400 feet across and runs north to west, just east of the northern portion of the Project. Both the Metro Rail tracks and the LA River are constructed of flame resistant materials acting as a fire break due to their width and low risk of ignition. Dodger stadium is located on the top of manufactured slopes to the north of the Project area. The hilly topography in Elysian Park to the north creates small canyons that are occupied by residences.

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up-slope and slower spread down-slope. Terrain that forms a funneling effect, such as chimneys, chutes, or saddles on the landscape can result in especially intense fire behavior. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind. It is possible that the canyons to the north could funnel offshore winds towards the project site.

2.5 Weather

The Project Site, like much of Southern California, is influenced by the Pacific Ocean and a seasonal, migratory subtropical high-pressure cell known as the "Pacific High." The Project Site is located within the Transverse Range and is situated

[2] Landfire (Landscape Fire and Resource Management Planning Tools), is a shared program between the wildland fire management programs of the U.S. Department of Agriculture Forest Service and U.S. Department of the Interior, providing landscape scale geo-spatial products to support cross-boundary planning, management, and operations, www.landfire.gov/viewer/, accessed June 4, 2025.

approximately 16 miles east of the Pacific Ocean. The City of Los Angeles has a Mediterranean climate with cool, wet winters and warm, dry summers. According to the Western Regional Climate Center (2019), August on average is the warmest month with an average high temperature of 82.5 degrees Fahrenheit (°F) and an average monthly normal of 73°F. February is the coolest month on average with an average low temperature of 49.3°F and an average monthly normal of 55.1°F. Rainfall occurs primarily between October and April, with the maximum average precipitation occurring in February. The average annual rainfall for the Project Site is approximately 18 inches. (Western Regional Climate Center, 2019).

From a regional perspective, the fire risk in southern California can be divided into three distinct "seasons" (Nichols et al. 2011, Baltar et al 2014). The first season, the most active season and covering the summer months, extends from late May to late September. This is followed by an intense fall season characterized by fewer but larger fires. The season begins in late September and continues until early November. The remaining months, November to late May cover the mostly dormant, winter season. Mensing et al. (1999) and Keeley and Zedler (2009) found that large fires in the region consistently occur at the end of wet periods and the beginning of droughts. In addition, fire history in recent years and additional research suggests that fire season for larger fires is lengthening in southern California due to changing climatic patterns and the increased frequency of extreme fire weather (Jain et al 2017, Dong et al 2022). Typically, the highest fire danger in southern California coincides with Santa Ana winds. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis near the end of fire season during late summer and early fall. They are dry, warm winds that flow from the higher desert elevations in the east through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Localized wind patterns on the Project Site are strongly affected by both regional and local topography.

The prevailing wind pattern is from the west (onshore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea), and at night winds are from the northeast (land), averaging 5 miles per hour (mph). During the summer season, the diurnal winds may average slightly higher (approximately 19 mph) than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are associated with downslope, canyon, and Santa Ana winds. The Project Site is not located in an area that would be expected to include unusual wind patterns based on terrain. However, the site is subject to periodic extreme fire weather climate conditions that occur throughout Los Angeles.

2.6 Water Supply

Water Supply for the Project will be required to comply with Section 507 of LAFC. Water service for the Project would be provided by Los Angeles Department of Water and Power. Water storage and hydrant locations, mains, and water pressures shall fully comply with 2022 LAFC and all structures are required to have fire sprinkles designed in accordance with NFPA 13. Per the 2024 Water and Sewer Infrastructure Report, available record drawings provided by the City show that there are existing water mains along North Broadway, a 24-inch line and a 40-inch line. Additionally, there is an existing 12-inch water main along North Spring Street. Additionally, there are nine existing fire hydrants within 300 feet of the Project site. Water storage and hydrant locations, mains, and water pressures are specifically required to fully comply with the requirements listed in Section 507.3 of the LAFC. The Project falls within the Industrial and Commercial Land Development category which has a required fire flow of 6,000-9,000 gpm from four to six adjacent fire hydrants flowing simultaneously, per City of Los Angeles Fire Code Table 507.3.1

The Information of Fire Flow Availability (IFFA) prepared by LADWP verified that the fire hydrants will have sufficient capacity to provide adequate fire flows to the proposed Project site. The required fire-flow for this Project, set by the Los Angeles Fire Department, is 9,000 gpm from four to six fire hydrants flowing simultaneously. The hydrants were analyzed with flows of 1,500 gpm each, resulting in residual pressures of 28 – 108 psi. Thus, the existing water mains and hydrants surrounding the Project will adequately service the minimum 9,000 gpm from six (6) hydrants running simultaneously. The IFFA confirms that the hydrants do meet the minimum required flow and that no new public hydrants will need to be installed.

On-site booster pumps are required to ensure that adequate pressure requirements are met for the Fire Sprinkler and Fire Standpipe systems.

3 Project Comparison with Applicable Wildfire and Building Codes

The Project would be required to comply with applicable portions of Article 7 of Chapter 5 of the Los Angeles Municipal Code, as amended, which adopts by reference the 2022 edition of the California Fire Code (CFC) and is hereafter referred to as the 2023 City of Los Angeles Fire Code (LAFC) or "Fire Code". The Project also shall comply with the uniform emergency access and installation standards used throughout the State as described in 2022 California Building Code (CBC) and Chapter 7A of the Los Angeles Building Code. The Project would also be subject to the provisions of Section 51182 of the Government Code regarding brush clearance standards around structures and the Los Angeles Fire Department Brush Clearance Requirements for Fuel Modification Plans. Based on the surrounding landscapes described previously, the site would comply with the brush management requirements through equivalent landcover types.

3.1 Building Codes

The Project would be required to comply with the 2023 Los Angeles Building Code. Specific provisions related to wildfire include Chapter 7A which establishes the minimum standards for the protection of life and property by increasing the ability of a building to resist the intrusion of flames or burning embers from a vegetation fire and addresses materials and construction methods for reducing exterior wildfire exposure. These measures work to limit the interaction of combustible building materials in a structure with potential wildfire exposure by requiring features such as non-combustible siding, ember resistant vents, and dual pane tempered windows to name a few. An extensive list is provided in Attachment 1.

3.2 Fire Codes

The Project would be required to comply with the 2023 Los Angeles Fire Code. While there are many relevant requirements throughout this code, it is important to note in the Project Design phase that roadways will be required to comply with Chapter 5 and Appendix D, Water Supply will be required to comply with Section 507 (LAFD does not adopt Appendix B and C), and the wildfire specific requirements found in Chapter 49 will apply.

3.3 Wildfire Specific Requirements

As mentioned previously, the designation of the Project area as a Very High FHSZ carries certain requirements to comply with codes and standards that do not apply outside of Fire Hazard Severity Zones. These requirements include construction requirements that affect construction methods and materials of the building, landscaping requirements that affect vegetation on or around the building, and site access.

3.3.1 Ignition Resistant Construction Requirements

Properties built within areas designated as VHFHSZ are required to comply with Chapter 7A of the LABC. As applied to the Project it is likely that the construction requirements for a podium mid-rise structure and high-rise such as those proposed will require Type 1 or 2 construction which will naturally comply with the Ignition Resistant Construction Requirements. One exception may be providing mesh or other ember resistant vents to prevent intrusion into void spaces within the building.

3.3.2 Landscaping Requirements

Properties built within areas designated as VHFHSZ are required to comply with Chapter 49 of the LAFC including providing up to 200-foot FMZs, possibly providing a Fuel Modification Plan that LAFD may require to identify where FMZs exist and the requirements therein and to document initial landscape plan conformance, and possibly providing a Fire Protection Plan that LAFD may require to memorialize all fire requirements, the project's conformance, and the wildland fire environment.

The purpose of FMZs is to remove fuels from the fire pathway thereby starving a potential fire in order to prevent an off-site wildfire from progressing into and endangering the Project. Similarly, the FMZs prevent a potential fire at the Project site from progressing into the wildland. The first 100 feet surrounding a structure has greater requirements than the second 100 feet. The requirements for FMZs as required by LAFD in Section 4906.5.1.1 are as follows:

1st 100 Feet (LAMC Section 57.4906.5.1.1.1-4906.5.1.1.6)

- Maintain property free of dead vegetation
- Mow all grasses to three inches
- Maintain trees and ornamental shrubbery or plants including irrigation and thinning
- Space all native shrubs 18 feet from one another
- Limb up all trees 6 feet or 1/3 the height of the tree whichever is less
- Maintain 10 feet within roadsides clear of combustible vegetation; ornamental vegetation is allowed.

2nd 100 feet (LAMC Section 57.4906.5.1.1.7)

- Remove hazardous vegetation and combustible growth

As applied to the Project, 200 feet is identified in Figure 5 – Fuel Modification Equivalency. To evaluate compliance, Dudek has considered if the project can obtain 200 feet of FMZ or equivalency and evaluated if the Project proposes landscaping that is compliant with these requirements.

For the South Parcel, the 200-foot zone includes adjacent paved areas such as roadways, the Metro A-Line tracks, the Los Angeles State Historic Park, and various structures. These areas have much less vegetation than what could be allowed, and the South parcel is expected to be approved as the surrounding land uses exceed the FMZ requirements. For the North Parcel, the 200-foot zone also includes adjacent paved areas such as roadways, the Metro A-Line tracks, the Los Angeles State Historic Park, and various structures but also includes portions of the Buena Vista Hill Elysian Park and the Los Angeles State Historic Park to the south. Given that the majority of the adjacent land uses exceed the FMZ requirements, and both parks are subject to regular maintenance enforced by the City, the FMZs for the North Parcel are also likely to be approved.

It is important to note that any project landscaping should comply with the FMZ requirements and should realistically all be irrigated. As noted above, the fire code makes exception for ornamental shrubs and trees so long as they are well maintained and irrigated. The provided plans appear to have trees and various other landscaping elements which must comply with the FMZ requirements. Further, Zone 0, which requires the area 0-5 feet from a structure to be completely ember resistant, may be required when building permits are pulled pending ongoing code-hearings. This would mean no woody plants or mulch could be used within 5 feet of any exterior wall.

In summary, the Project is expected to be considered compliant with the 200-foot FMZs due to the surrounding land uses exceeding the FMZ requirements. The landscaping on the site, including in exterior areas on the buildings, should be well maintained and irrigated and preclude flammable species. Further, vegetation should be kept more than 5 feet from exterior walls in order to maintain Zone 0.

3.3.3 Secondary Access

Properties built within areas designated as Very High Fire Hazard Severity Zones are required to provide two points of access into each parcel community. The provided plans demonstrate compliance and exceed this requirement.

4 Wildfire Evacuation Analysis

Analysis relating to a Project's impact on Wildfire Evacuation are guided by the relevant questions in CEQA Appendix G including:

- Does the Project substantially impair an adopted emergency response plan or emergency evacuation plan? (Appendix G Section XX)
- Does the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Appendix G Section IX)

Before discussing this analysis, it is important to note that most agencies do not have a designated quantitative threshold for evacuation, such as "evacuations should only take X minutes". Instead, an evacuation is considered to be safe if evacuees can evacuate before a wildfire threatens their structures and evacuation roadways. Simply, the amount of time required to evacuate the Project should be less than the time available to evacuate. The available time is increased by providing alternate routes, protecting the roadways, and hardening the structures. A major component of this evaluation must be the vulnerability of the structure and roadways to wildfire, so that credit is given or debited against a project that hardens structures and roadways, or fails to harden structures or roadways respectively. While this section focuses on the various factors affecting available and required evacuation time, it

is contextualized by the actual wildfire environment and the susceptibility of structures and roadways to becoming impaired by wildfire.

4.1 Evacuation Procedures

The City of Los Angeles has various operational documents that aid emergency managers with carrying out an evacuation. Some of these documents include the 2023 Los Angeles Base Emergency Operations Plan, the 2020 Los Angeles Emergency Operations Plan Evacuation Functional Support Annex, the 2024 Los Angeles Local Hazard Mitigation plan Section 18 – Wildfire, and the 2023 Los Angeles County Operational Area EOP. While these resources guide agency actions during an evacuation, there is also material available for residents to educate themselves on how to respond to an evacuation. LAFD implements the Ready, Set, Go program that instructs occupants how to prepare their home for wildfire and to leave immediately when a wildfire evacuation order is issued.

These aforementioned documents work together to instruct occupants how to prepare and respond to evacuation orders while also guiding the responding agencies on how to carry out complex evacuations. The 2023 Los Angeles Emergency Operations Plan has various functional annexes relevant to evacuation including Emergency Alert and Warning, Emergency Public Information, Mass Care and Sheltering, and a brush fire annex that demonstrates careful forethought for carrying out various types of evacuations. Should an evacuation impact the Project area, the emergency response agencies would be prepared to carry out various strategies such as phased evacuations to move occupants that are more imminently threatened prior to occupants that are not imminently threatened, traffic control to include manually staffing intersections to move evacuees quickly and effectively and deploy signs and security to prevent unauthorized traffic movement.

The LAPD is the primary agency responsible for conducting evacuations within the Los Angeles City boundaries, which includes the Project Site. If necessary, Unified Command will assess and evaluate the need for evacuations with cooperating agencies, and LAPD or local law enforcement orders and conducts evacuations according to established procedures, which are outlined in the City EOP Evacuation annex. Other City departments with resources to support the evacuation may be called to serve in secondary support roles as the situation deems necessary including: Port of Los Angeles (POLA) Police Department, LAWA Police, Recreation and Parks (RAP) Rangers, and Los Angeles Animal Services (Animal Services) Animal Control Officers. LAFD will support evacuation in cooperation with the Incident Command Post or Unified Command.

Among the methods available to citizens for emergency information are radio, television, social media/internet, neighborhood patrol car, aerial public address notifications, and Reverse 911 or Notify LA. The City of Los Angeles utilizes Notify LA for its Community Emergency Notification System. Notify LA is a regional notification system that sends telephone notifications to occupants and businesses within areas in the City impacted by, or in danger of being impacted by, an emergency or disaster. Notify LA allows key public safety City departments to initiate voice messages, text messages and e-mails to the public based on their geographic location. Examples of emergency notifications include evacuation notices, shelter-in-place notices and imminent threats to life or property. Additional information on emergency notifications as well as the criteria for sending a Notify LA alert is listed in the 2022 City of Los Angeles EOP Emergency Alert and Warning Functional Support Annex.

On a larger county level, the County uses Alert LA County, an opt-in mass notification program that allows individuals to receive emergency alerts by text, email and/or phone call. Alert LA County has accessibility features for people

with disabilities and others with access and functional needs. Nixle is also used to deliver emergency alerts and information through a short text message or email.

In addition, the Los Angeles Emergency Alert System (EAS) is county-wide and broadcasts emergency information via multiple radio stations; Local Primary 1: KFI (640 AM), KNX (1070 AM), and KBIG (104.3 FM), Local Primary 2: KROQ (106.7 FM) and KCBS (93.1 FM).

4.2 Project Vicinity Evacuation/Existing Conditions

Communities are divided into evacuation zones to geographically designate neighborhoods and communities that may experience a simultaneous threat. By doing this, emergency managers are able to implement phased evacuation to move occupants in areas facing imminent danger prior to moving those in areas that are not directly threatened. The Evacuation zones are identified in Figure 7, and the Project is situated in zone LFD-1063A. In the case of a wildfire that threatens the Project area, the surrounding zones may also be included in an evacuation depending on the movement of the wildfire. These zones include LFD-1001, LFD-1061, LFD-1063B, LFD-1059, LFD-1057, LFD-1165, LFD-1167, LFD-1065, LFD-1067, LFD-1003, and LFD-0939[3].

For conservative planning purposes it is customary to identify the worst-case scenario and thereby expose potential weaknesses. The worst time and most conservative analysis for an evacuation would be a weeknight on a Dodgers' game day when all residents of the Project and the surrounding communities are at home, employees are still in the commercial structures, Dodger stadium is filled to capacity, freeways are experiencing rush-hour traffic, and all occupants of the area would need to evacuate.

Utilizing the evacuation zones identified above and overlaying those zones on current US Census data, the total number of occupants in this scenario is expected to be about 112,275 persons that reside in 14,309 households in the zones identified above and up to 57,000 persons at Dodger Stadium which represents a sold-out "at capacity" game and up to 1,000 Dodgers' staff/players. Census data further provides that the average vehicles per household in this area is 2.03 vehicles per household. While it is more likely that Project occupants residing in the same household would share a vehicle to evacuate, for conservative planning a factor of 2.03 is utilized. This results in 29,047 evacuating vehicles from residences in the Project area. In addition to this, the total parking capacity of Dodger stadium is 16,000 spaces, meaning there could be up to that many vehicles evacuating the stadium during a sold-out game.

Evacuation Routes in the area are abundant with access to multiple freeways including I-5, SR-101, and SR-110 which aid in quickly moving occupants from the area. For reference, a basic freeway segment is expected to move approximately 2,250 vehicles per hour per lane at free flow speeds of 55 mph (all three freeways have posted speed limits of 55 mph in this area)[4]. I-5 in this area has 4 mainline lanes in each direction, SR-110 has 3 mainline lanes in each direction, and SR 101 has 4 mainline lanes each direction. All directions lead to safety, resulting in 22 lanes at 2,250 vehicles per hour per lane, or approximately 49,500 vehicles per hour if evacuees are split evenly amongst all lanes under free flow conditions.

[3] https://protect.genasys.com/zones/US-CA-XLA-LFD-1063-A?z=13.475638186376543&latlon=34.06984132218358%2C-118.23058051319964

[4] National Academies of Sciences, Engineering, and Medicine. 2022. *Highway Capacity Manual 7th Edition: A Guide for Multimodal Mobility Analysis*. Washington, DC: The National Academies Press. https://doi.org/10.17226/26432.

However, it must be noted that other existing roadway geometrics or traffic conditions (e.g., rush hour traffic, visibility, terrain, etc.) would influence the capacity of these freeway segments. For example, data recorded in the Cal Trans PEMS database indicates that the average afternoon rush hour speed on SR-101 North at California Postmile 1.08 (Broadway Off-Ramp) is 15 mph, I-5 North at California Postmile 20 (between Pasadena Avenue and Humboldt Street) is 24 mph and SR-110 South at California Postmile 24.46 (between College Street and Stadium Way) is 24 mph resulting in traffic flow per lane of approximately 700, 1,300 and 1,300 vehicles per lane per hour respectively. Similarly, data recorded during morning rush hour between 8am and 9am indicates that the speed on SR-101 South at California Postmile 1.08 (Broadway Off-Ramp) is 35 mph, I-5 South at California Postmile 19.45 (adjacent to Mozart Street) is 34 mph and SR-110 North at California Postmile 24.46 (between College Street and Stadium Way) is 59 mph resulting in traffic flow per lane of approximately 1,650, 1,600 and 2,250 vehicles per lane per hour. Therefore, the afternoon rush-hour conditions are slower than the morning rush-hour conditions. If all 22 available lanes are limited to 15 mph which is less than the observed 25 mph rush-hour rate of travel on I-5 North and SR-110 South, each lanes is capable of moving 700 vehicles per lane per hour. The total capacity during PM rush-hour with worse than observed conditions would be approximately 15,400 vehicles per hour.

While rush-hour could impact evacuation, it is also expected that roadways would be shut down by Law Enforcement to allow for evacuation if necessary, providing the full roadway capacity to evacuees. Because of the vast connectivity of the freeways, evacuees can be considered safe when they get to the freeways, if not sooner as explained below. The limiting factor would be the roads that connect occupants to the freeways, which have much smaller capacities, however traffic control as explained in the various emergency planning documents would greatly aid hastening evacuations. Additionally, there are dozens of on- and off-ramps available to evacuees to access the freeway.

A unique additional consideration is that the Metro A-Line provides more evacuation capacity and could be used to hasten evacuations of the area, similar to how an elevator can be commandeered to aid in building evacuations.

Occupants of the area are considered safe when they reach an area that is no longer directly exposed to open space. In simple terms, this would essentially be anywhere that does not have an immediate interface with Elysian Park. Emergency Managers could opt to not evacuate Dodger Stadium on account of 1,000-2,000 feet of paved parking areas that separate the stadium from the open space of Elysian Park in order to safely shelter-in-place the occupants of the stadium as opposed to making them drive through the open space.

4.2.1 Buena Vista Project Evacuation and Impact to Existing

The Project adds up to 1,477 parking spaces and therefore up to 1,477 evacuating vehicles to the existing area. Expressed as a percentage change, the Project adds 5.1% more vehicles to the evacuating area when considering household and not considering Dodger stadium, or 3.3% more vehicles if considering all households and the addition of evacuees from Dodger stadium. The Project has multiple points of connection for Project occupants to access Broadway and Spring Street. The Project proposes a pedestrian crossing (beacon) which will not impact evacuation.

As discussed in the wildfire sections of this technical memo, heat and flame from wildfire is not expected to directly impact the site, however embers could impact the site. Considering the South Parcel individually, it is completely separated from potential wildfire exposure and highly unlikely to be evacuated. While the LA State Historic Park does present vegetation, ongoing maintenance and irrigation does not lead the vegetation to support combustion. Further, a fire in the Park would be considered a vegetation fire, not a wildfire given the absence of wildland, and

is likely to be quickly extinguished due to easy and abundant accessibility for fire crews. Therefore, it is possible that emergency managers do not need to evacuate the project site. While this also applies to the North Parcel, the North Parcel does have line of sight contact with potential wildfire exposure. By building to Chapter 7A of the LABC, the Project site would be resistant to ignition by embers. Should individuals self-select for evacuation, meaning they leave prior to an evacuation order, they would be considered safe as soon as they reach Broadway west of Bishops Rd or Broadway east of the Los Angeles River. In the event a fire directly adjacent to the Project alongside the existing Solano Canyon Community, evacuees would be directed either direction on Broadway Avenue away from the fire and considered safe after traveling approximately 1,200 feet west past Bishops Road or 1,200 feet east past the Matro A-line tracks. Further, conditions along the majority of the evacuation routes are developed , meaning that wildfire will not directly impact evacuees.

4.3 Potential Evacuation Impact Assessment

Neither CEQA, nor the City has adopted numerical time standards for determining whether an evacuation timeframe is appropriate. Public safety, not time, is generally the guiding consideration for evaluating impacts related to emergency evacuation. As outlined in Appendix G of the CEQA Guidelines, the City considers a Project's impact on evacuation significant if the Project will significantly impair or physically interfere with implementation of an adopted emergency response or evacuation plan; or if the Project will expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

The City of Los Angeles has historically had an extremely high success rate for safely evacuating large numbers of people and doing so in a managed and strategic way using available technological innovations. Evacuation issues could result from limited evacuation routes, existing non-conforming narrow evacuation routes, exposures along evacuation routes, lack of temporary refuge areas, and vulnerable community buildings. None of these potential issues are prevalent at the Project which would have abundant evacuation routes, code-compliant road widths, limited exposure to open space along evacuation routes, temporary refuge areas, and ignition resistant buildings.

Technological advancements and improved evacuation strategies learned from prior wildfire evacuation events have resulted in a system that is many times more capable of managing evacuations. The LA City Emergency plans provide a framework for responding to all emergency types and allow for flexibility to address the unique situations that may arise during an incident through use of modern technology to communicate evacuation alerts to specific evacuation areas. With the technology in use today in the City such as smart phones and emergency alerting, evacuations are more strategic and surgical than in the past, evacuating smaller areas which are at the highest risk and phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Mass evacuation scenarios where large populations are all directed to leave simultaneously, resulting in traffic delays, are thereby avoided, and those populations most at risk populations can safely evacuate. This technology also allows emergency managers to recognize structures such as the Project that can be used to shelter would-be evacuees, provide temporary refuge, and thereby keep streets clear for evacuees of areas and structures that are actually susceptible to loss from a wildfire.

As evidenced by the minor increase of 5% more vehicles evacuating the area with the addition of the Project, evacuation traffic generated by the Project would not significantly increase the average evacuation travel time. Further, the Project converts a partially undeveloped lot that could carry fire into non-combustible structures and maintained landscape, thereby increasing the availability of areas of refuge for evacuees that would not exist without the Project while reducing wildfire exposure along Broadway. The Project does not preclude local

jurisdictions or emergency personnel to conduct evacuations, nor would the Project cut off or otherwise modify any of the County or City's evacuation routes.

In any populated area, safely undertaking large-scale evacuations may take several hours or more and require moving people long distances to designated areas. Further, evacuations are fluid, and timeframes may vary widely depending on numerous factors, including, among other things, the number of vehicles evacuating, the road capacity to accommodate those vehicles, residents' awareness and preparedness, evacuation messaging and direction, and on-site law enforcement control. The "Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act" guidance from the California Office of the Attorney General suggests that jurisdictions set benchmarks of significance based on past successful evacuations or on those from communities in similar situations. Safely undertaking large-scale evacuations is a complicated process that involves many factors that cannot necessarily be determined in advance. A large-scale evacuation may take several hours or more and require moving people long distances to designated areas.

Due to its location, the Project would also provide the responding emergency managers (e.g., incident commander, Los Angeles County Sheriff) the alternative option of recommending that all or a portion of the onsite population shelter in place due to construction type, ignition resistance, and defensible space zones. This on-site sheltering option is a contingency plan identified in the Evacuation Annex, but an important option in the scenario when evacuation is considered infeasible or the less safe option. This would provide emergency managers with a safer alternative to risking a late evacuation.

Overall, as presented in this assessment, safe evacuation of the Project and surrounding community is possible in evaluated scenarios and would not be expected to expose people or structures to a significant risk of loss, injury or death. Also, because the Project site is a large area of ignition resistant, urbanized landscapes, it is not anticipated that the entire community would be relocated off-site during a wildfire event in the nearest wildland areas that are substantial distances to the north and west of the Project and separated by railroad corridor, roadway, development and landscapes. Further, like any new, large community or urbanized area, the Project will provide numerous opportunities throughout the site for on-site relocation and sheltering in place as a contingency option to evacuation off-site.

5 California Environmental Quality Act

CEQA is a disclosure law, meaning it requires the Lead Agency (the City) to evaluate various components of the Project and determine the impacts. A project is not necessarily barred from approval for having impacts but is in violation if it fails to disclose and thereby subject to litigation. As related to Wildfire, there are 5 relevant questions that are required to be evaluated for Projects in a Very High FHSZ such as the Project:

- *Does the Project substantially impair an adopted emergency response plan or emergency evacuation plan?* The Project would not impact an adopted emergency response plan or emergency evacuation plan. The project does not block or re-route existing roadways/evacuation routes or propose actions or approaches that are conflicting with City Emergency Operations or Response Plans. There were no adopted evacuation plans discovered for this area, and therefore no conflicts were noted.
- *Due to Slope, Prevailing Winds, and Other Factors, Would the Project Exacerbate Wildfire Risks and Expose Project Occupants to Pollutant Concentrations from a Wildfire or the Uncontrolled Spread of a Wildfire?* The wildfire environment in the area was observed to be minimal and largely concentrated in the Elysian

Park. Separation from the Project to these wildland fuels is significant and removes the potential for direct exposure. It is possible that a wildfire occurring in this Park when winds are blowing toward the Project could result in short-term smokey conditions. However, the type of buildings proposed would enable residents to remain indoors and not subject to smoke. If residents were compelled to leave the area, a short drive would result in removal from the smokey conditions. Further, the small area of fuel available for wildfire in the Park's open space would result in a short duration before the fuels were consumed and smoke levels subsided.

- *Would the Modified Project Require the Installation or Maintenance of Associated Infrastructure (Such as Roads, Fuel Breaks, Emergency Water Sources, Power Lines, or Other Utilities) that May Exacerbate Fire Risk or that May Result In Temporary or Ongoing Impacts to the Environment?* The Project would not result in the installation of new infrastructure beyond its footprint. The Project would convert an area that currently represents a wildfire risk to a fire hardened site with irrigated landscapes, maintenance, pavement and concrete and ignition resistant buildings. The result of this conversion of ignitable fuels to ignition resistant land uses is a net decrease in potential ignitions and virtual elimination of vegetation related fires.
- *Would the Modified Project Expose People or Structures to Significant Risks, Including Downslope or Downstream Flooding or Landslides, as a Result of Runoff, Post-Fire Slope Instability, or Drainage Changes?* The existing Project area slightly slopes upwards towards Broadway, and the surrounding terrain is minimally sloped. Based on the Project's location and surrounding terrain, and distance from the nearest steeper slope areas, there is virtually no potential exposure of the Project to significant risks from flooding, landslides, runoff, or post-fire slope instability or drainage changes. Necessary engineered infrastructure considers proper site drainage and stability.
- *Would the Project Expose People or Structures Either Directly or Indirectly, to a Significant Risk of Loss, Injury, or Death Involving Wildland Fire?* As detailed herein, there is no direct exposure of the Project to wildland areas and therefore to wildfire. There is minimal Project exposure to downwind smoke and or flying embers. The Project provides ignition resistant buildings, landscapes, and is surrounded by fuel modification equivalent ground covers which eliminate wildfire occurrence in all directions for distances well beyond the standard 200 feet requirement. The Project does not include characteristics consistent with those that would be more likely to result in wildfire exposure, loss, injury or death from wildfire. It is located in an urban area with large fire breaks or fire break equivalents on all sides. It is also not a Project site that would be vulnerable to ember ignitions as a result of compliance with Chapter 7A of the LABC and meeting/exceeding FMZ requirements. The same features that prevent an off-site fire from progressing to the Project and endangering Project occupants also prevent a potential Project related fire from spreading off-site by eliminating the chain of fuels otherwise known as a fire pathway. The Project would not exacerbate off-site wildfire risk.

The impacts for each of these questions can be no impact, less than significant impact, less than significant impact with mitigation incorporated, potentially significant impact. Dudek's opinion is that for each of the CEQA questions, the Project's potential impact is: Less than Significant Impact.

5.1 California Attorney General's Office Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act

In October of 2022, AG Rob Bonta published a guidance document to assist local agencies to design development projects in a way that minimizes impacts to wildfire ignition, emergency access, and evacuation, and protect California's residents and the environment. The guidance expanded the scope of the CEQA section by asking lead agencies to evaluate the wildfire criteria for all projects located on or near wildfire prone areas, not just those that were in Very High FHSZs as the CEQA appendix states. The guidance document makes it clear that the AG's office feels that "residential developments in the wildland-urban interface and other wildfire prone areas can significantly increase the risks of wildfires and the related risk to public safety. Introducing more people via additional development increases the likelihood of fire ignition, which may then develop into a wildfire. Building housing in the wildland-urban interface also puts more people in harm's way and may hinder evacuation routes and emergency access"[5].

Dudek has experience with hundreds of projects of all sizes and all levels of controversy throughout the State of California. Based on this experience, when projects are located within extreme wildfire environments, it is advisable to complete a Fire Protection Plan and Wildfire Evacuation Study in order to support the Project through environmental review processes. As mentioned previously, failure to fully explore the Threshold questions and fully disclose those findings is often of greater risk to the Project than the actual impacts. However, the Project is of a type and location that would not normally be considered for extensive wildfire related analysis.

As discovered in this initial review and based off of experience, the level of impact for this Project would likely be less than significant due to the performance of the codes and standards that the Project would be required to comply with including non-combustible construction type, compliant limited landscaping, Chapter 7A compliant features. Other local features that impact the Project and aid in reducing the risk of wildfire include the adjacent land uses that provide a level of protection greater than that required in code by completely removing fuels as evidenced in the surrounding paved roadways, Metro tracks, and surrounding structures. Further, the open space that could potentially threaten the Project is not true wildland but maintained parks subject to regular enforced disturbance through vegetation removal and thinning.

6 Conclusions

In conclusion, Dudek's analysis results in the following findings classified in the following order: wildfire environment, evacuation, and CEQA.

6.1 Wildfire Environment/Construction Requirements

To summarize Section 2 and 3 of this technical memorandum, the Project is in a VHFHSZ and will therefore be required to comply with the requirements described in Section 3.3 of this report. An analysis of the area identifies that the Project Area is highly urbanized, with very few natural fuels. Further, the design of the Project including the complete fuel break offered by Broadway and the Metro A-Line tracks will prevent a potential fire in the open space

[5] https://oag.ca.gov/news/press-releases/attorney-general-bonta-issues-guidance-local-governments-mitigate-wildfire-risk

to the north within Buena Vista Hill Elysian Park from directly impacting the proposed structures. While Fire Behavior Modeling would verify this statement, it is likely that the flames within the maintained park grasses and limbed up trees would contribute to up to 40–50-foot flames under extreme worst case Santa Ana Conditions. The width of Broadway will separate the Project structures from these flames, though the project structures could be subjected to convective/radiant heat from a fire in the area. To be clear, the last fire recorded in the area was more than four decades previous, and it is unlikely that a fire will start in or burn through the well-maintained park. At any rate, building to the required Chapter 7A requirements and maintaining vegetation in accordance with the landscaping requirements identified in 3.3.2 prohibit the radiant and convective heat or embers from a wildfire from finding a suitable fuel in the Project and causing ignition. As such, while the project location is in an area identified to have a hazard by CalFire, the Project area does not have a wildfire risk substantiated by increased risk of ignition or evacuation impact. Further, the same features that prevent an off-site fire from progressing to the Project and endangering Project occupants also prevent a potential Project related fire from spreading off-site by eliminating the chain of fuels otherwise known as a fire pathway.

6.2 Evacuation Analysis

To summarize Section 2 and 4 of this technical memorandum, the Project proposes to add a slight increase of occupants to an already densely populated area. This area is presently served by a robust transportation network with multiple nearby freeways that are unlikely to be overwhelmed by the addition of 5% more vehicles. The robust roadway network can work in tandem with the City's extensive emergency planning for maximum efficiency of each roadway to systematically move people out of the area, should evacuation be deemed necessary. The Project does not cut-off or otherwise negatively impact any of the City or County's evacuation routes. Rather, it converts open space with the potential to transmit fire into hardened structures and maintained landscaping, thereby reducing potential wildfire exposure to occupants of existing land uses that would be evacuating along Broadway. The Project has unique features such as noncombustible construction, compliance with Chapter 7A of LABC, compliance with Chapter 49 of LAFC, and very limited exposure to wildfire, essentially only possibly being exposed to embers. The Project does not offer available fuel for embers, so a spot fire is unlikely to occur. As such, the Project may not need to be evacuated or could be evacuated later, allowing nearby residential and commercial areas with less protective features to be evacuated first. In the case that the area is evacuated, the distance to safety is small.

6.3 CEQA Analysis

Based off of the assumptions analyzed in this technical memo, it is unlikely that the Project creates significant impacts under any of the CEQA thresholds due to the inherent safety of complying with modern fire and building codes as well as the limited exposure to wildfire.

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FIGURES



SOURCE: County of Los Angeles; Open Street Map; Bing Maps

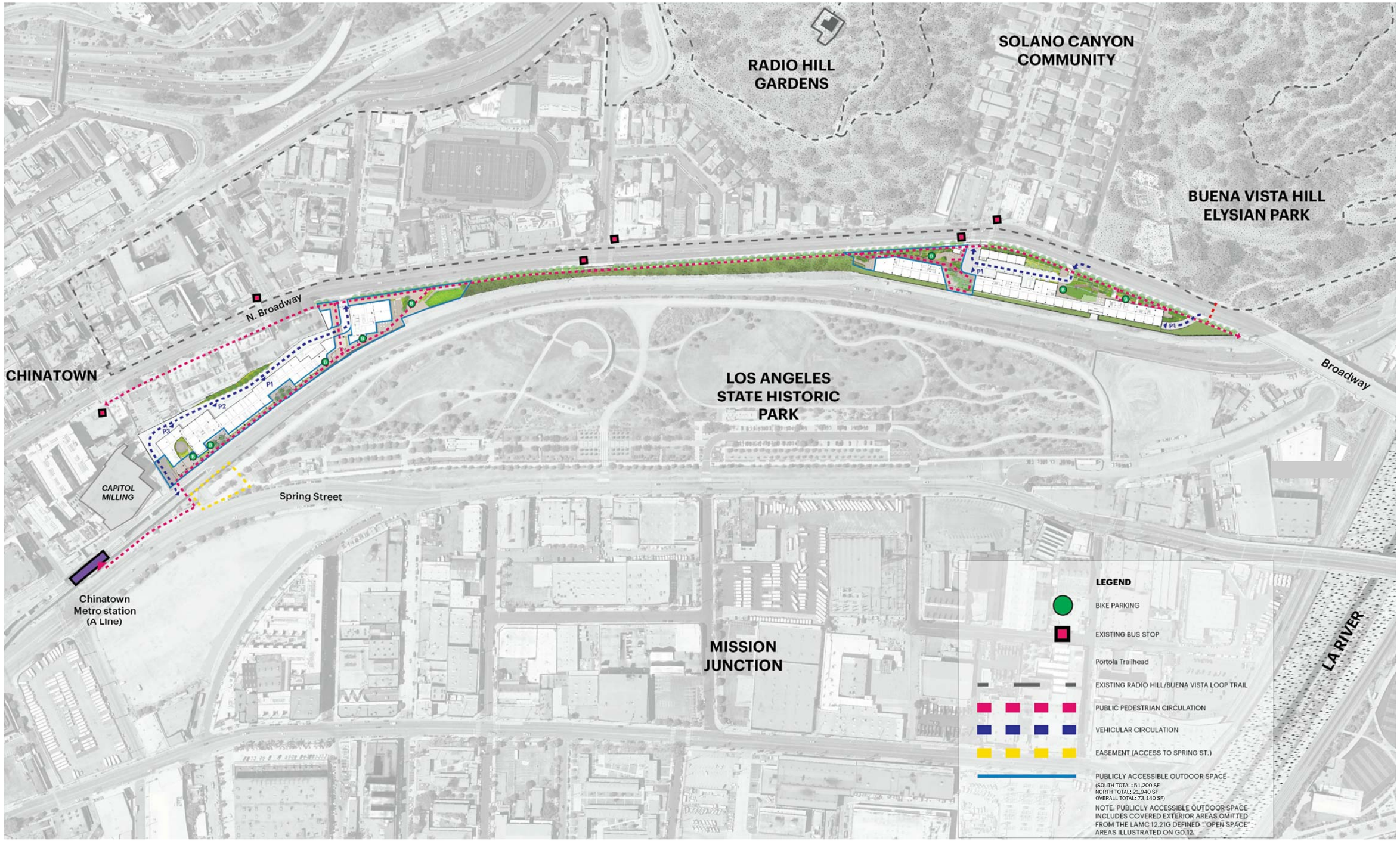
DUDEK

0 250 500 Feet

FIGURE 1

Project Location

Buena Vista Technical Memo



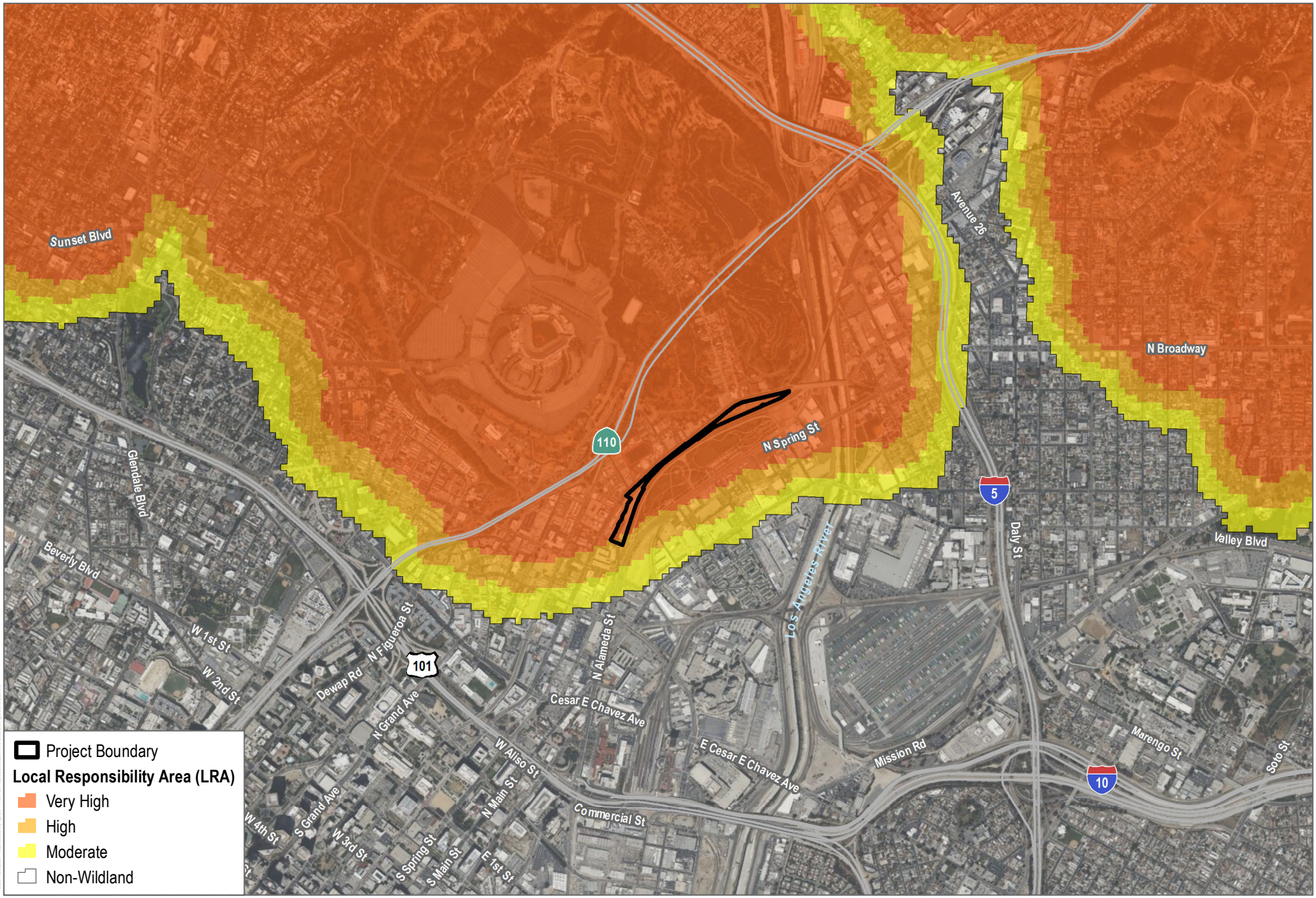
SOURCE: Rios, 2025

FIGURE 2

Project Site Plan

Buena Vista Technical Memo

DUDEK



SOURCE: CALFIRE 2025; County of Los Angeles; Open Street Map; Bing Maps

DUDEK

0 0.25 0.5 Miles

FIGURE 3

Fire Hazard Severity Zones

Buena Vista Technical Memo



SOURCE: CALFIRE 2025; County of Los Angeles; Open Street Map; Bing Maps

DUDEK

0 0.25 0.5 Miles

FIGURE 4

Fire History

Buena Vista Technical Memo



SOURCE: County of Los Angeles; Open Street Map; Bing Maps

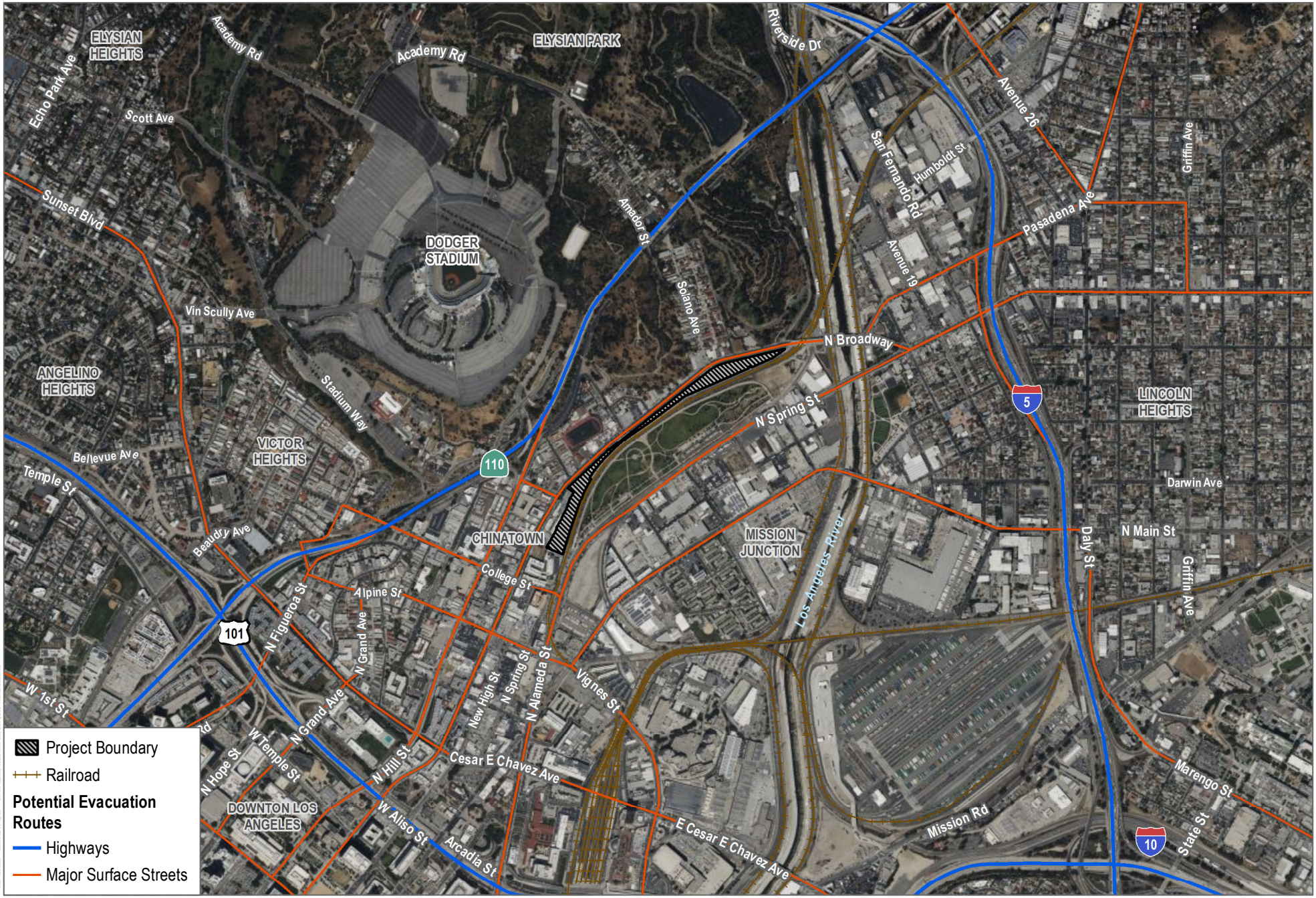
DUDEK

0 250 500 Feet

FIGURE 5

Fuel Modification Equivalency

Buena Vista Technical Memo



SOURCE: County of Los Angeles; Open Street Map; Bing Maps

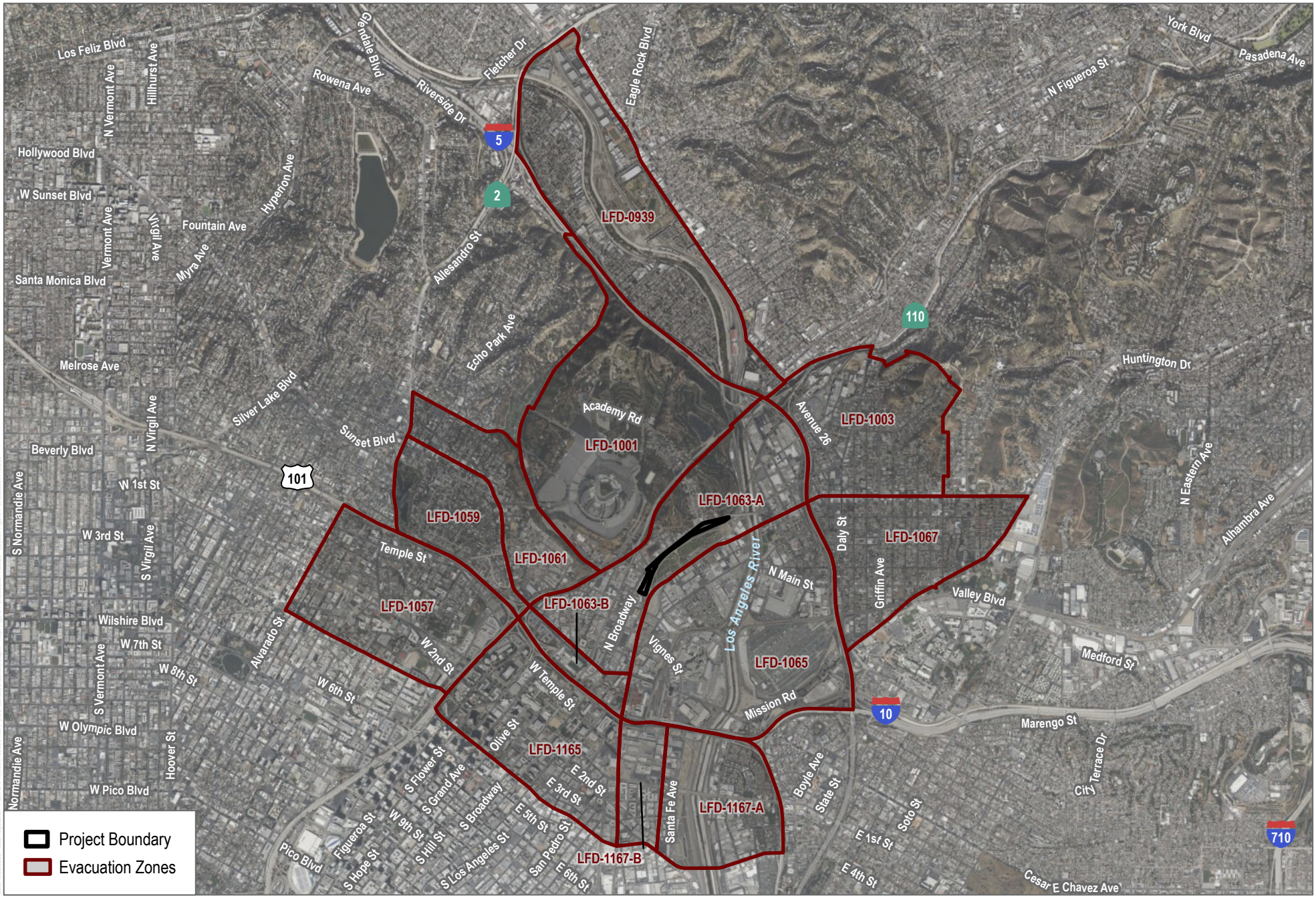
DUDEK

0 1,000 2,000 Feet

FIGURE 6

Fire Evacuation Routes

Buena Vista Technical Memo



SOURCE: County of Los Angeles; Open Street Map; Bing Maps; Genasys Project

DUDEK

0 1,500 3,000 Feet

FIGURE 7

Evacuation Routes

Buena Vista Technical Memo

ATTACHMENTS

As of the date of thi sreview, the following are the requirements for ignition resistant construction for the Proposed Project, including requirements under Chapter 7A of the California Building Code (CBC). In addition, exterior building construction including roofs, eaves, exterior walls, doors, windows, decks, and other attachments must meet the most current CBC Chapter 7A ignition resistance requirements at the time of building permit application.

1. All structures will be built with a Class A roof assembly, including a Class A roof covering. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.
2. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be fire stopped with approved materials or have one layer of minimum 72-pound mineral-surfaced non-perforated cap sheet complying with ASTM D 3909 installed over the combustible decking. However, openings on barrel tiles or similar roof coverings, must be fire stopped (bird stopped) with approved materials to prevent the accumulation of debris, bird nests, etc. between the tiles and decking material.
3. When provided, exposed valley flashings shall be not less than 0.019-inch (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide underlayment consisting of one layer of minimum 72-pound mineral-surfaced non-perforated cap sheet complying with ASTM D 3909 running the full length of the valley.
4. All rain gutters, down spouts and gutter hardware shall be constructed from metal or other non-combustible material to prevent wildfire ignition along eave assemblies.
5. All chimney, flue or stovepipe openings attached to a fireplace, stove, or other solid or liquid fuel burning equipment or device shall be equipped with an approved spark arrester. An approved spark arrester is defined as a device intended to prevent sparks from escaping into the atmosphere and constructed of nonflammable materials, having a 12-gauge minimum thicknesses with openings no greater than ½ inch, or other alternative material the Fontana Fire Protection District determines to provide equal or better protection. It shall be installed to be visible for the purposes of inspection and maintenance.
6. The exterior surface materials shall be non-combustible, including hard or ignition resistant, such as stucco. In all construction, exterior walls shall extend from the top of the foundation to the roof and terminate at 2-inch nominal solid blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.
7. All eaves, fascias, and soffits will be enclosed (boxed) with non-combustible materials. This shall apply to the entire perimeter of each structure. Eaves of heavy timber construction are not required to be enclosed as long as attic venting is not installed in the eaves. For the purposes of this section, heavy timber construction shall consist of a minimum of 4"x 6" rafter tails.
8. Paper-faced insulation shall be prohibited in attics or ventilated spaces.
9. Automatic interior fire sprinklers for commercial buildings shall be installed according to the National Fire Protection Association (NFPA) 13 requirements.
10. Roof vents, dormer vents, gable vents, foundation ventilation openings, ventilation openings in vertical walls, or other similar ventilation openings shall be louvered and covered with 1/16-inch, noncombustible, corrosion-resistant metal mesh or other approved material that offers equivalent protection.
11. Attic or foundation ventilation louvers or ventilation openings in vertical walls shall not exceed 144 square inches per opening and shall be covered with 1/16" inch mesh corrosion-resistant metal screen or other approved material that offers equivalent protection. Ventilation louvers and openings may be incorporated as part of access assemblies.

12. No attic ventilation openings or ventilation louvers shall be permitted in soffits, in eave overhangs, between rafters at eaves, or in other overhanging areas.
13. All fences and gate assemblies (fences, gates, and fence posts) attached or within five feet of a structure shall be of non-combustible material or pressure-treated exterior fire-retardant wood.
14. All projections (exterior balconies, decks, patio covers, unenclosed roofs and floors, and similar architectural appendages and projections) or structures less than five feet from a building shall be of non-combustible material, one-hour fire resistive construction on the underside, heavy timber construction, pressure-treated exterior fire- retardant wood or ignition resistant construction. When such appendages and projections are attached to exterior fire- resistive walls, they shall be constructed to maintain same fire-resistant standards as the exterior walls of the structure.
15. Accessory structures attached to buildings with habitable spaces and projections shall be in accordance with Chapter 7A of the CBC.
16. Detached accessory structures located less than 50 feet from a building containing habitable space shall be constructed in accordance with Chapter 7A of the CBC.
    a. **Exception:** Accessory structures less than 120 square feet in floor area located at least 30 feet from a building containing a habitable space.
17. Exterior doors shall be approved non-combustible construction, solid core wood and shall conform to the performance requirements of standard SFM 12-7A-1 or shall be of approved noncombustible construction, or solid core wood having stiles and rails not less than 1⅜ inches thick with interior field panel thickness no less than 1¼ inches thick, or shall have a fire-resistance rating of not less than 20 minutes when tested according to National Fire Protection Association (NFPA) 252.
18. All glass or other transparent, translucent or opaque glazing materials, that is used in exterior windows, including skylights, or exterior glazed door assemblies shall be constructed of multipane glazing with one tempered pane meeting the requirements of Section 2406 (2016 CBC) Safety Glazing.
19. Vinyl window assemblies are deemed acceptable if the windows have the following characteristics:
    a. Frame and sash are comprised of vinyl material with welded corners.
    b. Metal reinforcements in the interlock area.
    c. Glazed with insulating glass, annealed or tempered (one layer of which must be tempered glass).
    d. Frame and sash profiles are certified in AAMA Lineal Certification Program.
    e. Certified and labeled to ANSI/AAMA/NWWDA 101/LS2-97 for Structural Requirements.