4. ENVIRONMENTAL IMPACT ANALYSIS
K. PUBLIC SERVICES
1 FIRE PROTECTION AND EMERGENCY SERVICES

1. INTRODUCTION

This section analyzes the Project's potential impacts on fire protection and emergency medical services (EMS) provided by the Los Angeles County Fire Department (LACFD). The analysis addresses potential fire protection and EMS impacts related to service capacity, fire flow, emergency response times, emergency access, and fire safety, and determines whether the Project would generate the need for new or physically altered fire stations. This section is based, in part, on information provided by the LACFD (provided as Appendix G-1, *Fire Department Correspondence*, of this Draft EIR), including November 2014 and July 2015 LACFD comments on the Project's Notice of Preparation, and February 2016 LACFD correspondence. This section also incorporates information from the LACFD 2014 Statistical Summary, LACFD 2012 Strategic Plan, Los Angeles County 2035 General Plan Update Safety Element (Safety Element, 2015) and associated EIR (2015), and other County plans and environmental documents.

2. ENVIRONMENTAL SETTING

a. Existing Conditions

(1) Fire Protection Facilities, Services, and Response Times

The Harbor-UCLA Medical Center Campus is located within the unincorporated Harbor Community Plan Area of the County of Los Angeles, within relatively short distance of several incorporated cities including Los Angeles, Torrance and Carson. Fire protection and EMS is provided to the Project Site by LACFD, with assistance from the fire departments of the surrounding cities under mutual aid agreements with the County.

LACFD provides 24-hour, all-risk emergency services to a population of over four million residents in 58 cities and all of the County's unincorporated communities[1] within a 2,305-square-mile service area.[2] There are three major geographic regions and associated bureaus (North Regional Operations Bureau, Central Regional Operations Bureau, and East Regional Operations Bureau) within the LACFD service area, which are divided into nine divisions and 22 battalions.[3] LACFD provides emergency services in response to a wide range of incidents, including structure fires, wildfires, commercial fires, hazardous materials incidents, urban search and rescue, and swift water rescue.[4] In 2014, LACFD responded to approximately 8,080 fire incidents daily from 171 fire stations and provided over 277,000 emergency medical services.[5] In 2014, LACFD consisted of 4,663 total personnel of whom approximately 2,100 were firefighters, 259 engine companies, 32

1 *Los Angeles County Fire Department Strategic Plan, Engineering our Future, 2012.*

2 *Los Angeles County Fire Department 2014 Statistical Summary.*

3 *Ibid.*

4 *Los Angeles County Fire Department Strategic Plan, op. cit.*

5 *Los Angeles County Fire Department 2014 Statistical Summary.*

truck companies, 67 paramedic squads, 24 paramedic assessment engines, and nine helicopters.[6] LACFD specialty services include four emergency support teams, two urban search and rescue task forces, and four hazardous materials task forces.[7]

The Project Site is located in Division 1, Battalion 7 of LACFD's Central Regional Operations Bureau.[8] LACFD Fire Station 36, located at 127 W. 223rd Street in Cason, approximately 0.7 miles southeast of the Project Site, is the first-in fire station to the Project Site.[9] Fire Station 36 is equipped with two engines and one paramedic unit, is staffed by 30 full-time personnel, had average emergency and non-emergency response times within its service area in 2015 of 4:34 minutes and 6:23 minutes, respectively, and has an estimated emergency response time to the Project Site of 3:33 minutes (LACFD does not have estimated response times for non-emergency calls to the Project Site).[10] During 2015, Fire Station 36 responded to a total of 6,416 emergency and 248 non-emergency incidents, with the emergency incidents including 136 fires, 5,538 medical, and 742 other.[11] The LACFD uses the national guidelines for response times of five minutes for fire and EMS responses and eight minutes for advanced life support (paramedic unit) in urban areas.[12] Therefore, LACFD emergency response times to the Project Site are currently within LACFD's response time goals.

LACFD Fire Station 127, located at 2049 E. 223rd Street in Carson, approximately 3.5 miles east of the Project Site, is the second-in fire station to the Project Site.[13] Fire Station 127 is equipped with one engine and one engine/ladder truck, is staffed by 18 full-time personnel, had average emergency and non-emergency response times within its service area in 2015 of 5:09 minutes and 6:54 minutes, respectively, and has an estimated emergency response time to the Project Site of 7:30 minutes.[14] During 2015, Fire Station 127 responded to a total of 937 emergency and 53 non-emergency incidents, with the emergency incidents including 39 fires, 730 medical, and 168 other.[15]

While LACFD has identified Fire Stations 36 and 127 as the first-in and second-in fire stations serving the Project Site, LACFD operates under a regional concept whereby emergency response units are dispatched as needed to an incident anywhere in LACFD's service territory based on distance and availability, without regard to service areas.[16] Therefore, stations other than the two LACFD fire stations referenced above may respond to emergencies at the Project Site. The locations of the LACFD fire stations referenced above are shown in **Figure 4.K.1-1**, LACFD *Fire Stations Map*, and data about these stations is provided in **Table 4.K.1-1**, *LACFD Fire Stations in the Project Vicinity*, and **Table 4.K.1-2**, *LACFD First-In Fire Station (Station 36) Calls and Response Times*.

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6 *Ibid.*

7 *Ibid.*

8 *County of Los Angeles, Environmental Impact Report for the Los Angeles County General Plan Update (2035) SCH No. 201108104, Figure 5.14-1. Certified March 24, 2015.*

9 *Kevin T. Johnson, Acting Chief, Forestry Division, Prevention Services Bureau, LACFD, letter dated February 10, 2016 and included in Appendix G-1 of this Draft EIR.*

10 *Ibid.*

11 *Ibid.*

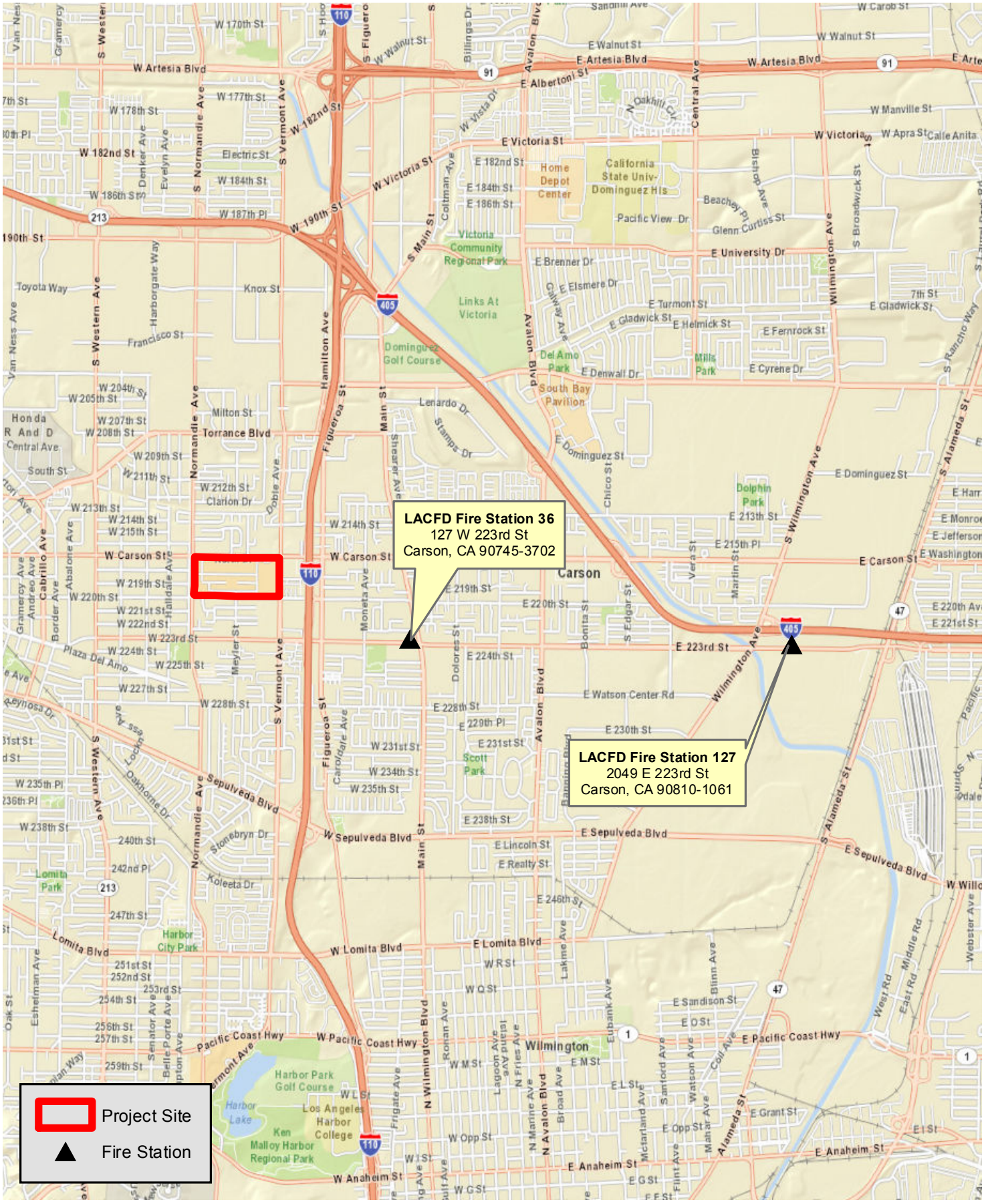
12 *Ibid.*

13 *Ibid.*

14 *Ibid.*

15 *Ibid.*

16 *Ibid.*



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0 0.75 1.5 Miles

LACFD Fire Stations Map

Harbor-UCLA Medical Center Master Plan

Source: ESRI Street Map, 2009; PCR Services Corporation, February 2016.

FIGURE

4.K.1-1

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Table 4.K.1-1

LACFD Fire Stations in the Project Vicinity

Facility Name	Address	Jurisdiction	Distance (miles)	Equipment and Personnel
LACFD Fire Station 36	223rd Street, Carson	LACFD	0.7	2 engines, paramedic unit, 30 full-time personnel[a]
LACFD Fire Station 127	2049 E 223rd Street, Carson	LACFD	3.5	1 engine, 1 engine/ladder truck, 18 full-time personnel[a]

[a] *Kevin T. Johnson, Acting Chief, Forestry Division, Prevention Services Bureau, LACFD, letter dated February 10, 2016 and included in Appendix G-1 of this Draft EIR.*

Source: PCR Services Corporation, February 2016.

Table 4.K.1-2

LACFD First-In Fire Station (Station 36) Calls and Response Times

Calls		Response Times (minutes)	
Type	Total Number in 2015	Average Within Service Area	Estimated to Project Site
Emergency	6,416	4:34	3:33
Non-Emergency	248	6:23	N/A[b]

[a] *Kevin T. Johnson, Acting Chief, Forestry Division, Prevention Services Bureau, LACFD, letter dated February 10, 2016 and included in Appendix G-1 of this Draft EIR.*

[b] *LACFD does not have estimated non-emergency response time estimates to the Project Site.*

Source: PCR Services Corporation, February 2016.

According to the LACFD, there are no automatic aid agreements with any other fire protection agency (e.g., cities of Los Angeles, Carson, Torrance, etc.) that affect the Project Site - mutual aid is, by definition, available everywhere but is meant to be invoked only in rare and unusual circumstances.[17] Also according to the LACFD, there are currently no plans for new fire stations in the Project area.[18] Lastly, based on Figure 12.5 (Fire Hazard Severity Zones Policy Map) in the County's 2035 General Plan Update Safety Element, the Project Site is not located within a designated Wildland Fire Hazard Area.[19] Therefore, the Project Site is not subject to wildland fires, and this issue is not addressed further in this section.

(2) Emergency Access

The Project Site is bordered on the north, east and west by major arterials (W. Carson Street, S. Vermont Avenue, and Normandie Avenue, respectively), and is bordered on the south by a collector street (W. 220th Street). Emergency access to the Project Site is available from each of these streets, with direct routes from LACFD Fire Station 36 to the Project Site via either West 220th Street or West Carson Street (0.7 miles). According to Figure 12.6 (Disaster Routes Map) in the County's 2035 General Plan Update Safety Element,

[17] *Ibid.*

[18] *Ibid.*

[19] *County of Los Angeles, Los Angeles County General Plan Update (2035), Chapter 12: Safety Element. Adopted October 6, 2015.*

designated disaster routes within the Project Site vicinity include the Harbor Freeway (I-110) and West Carson Street.[20]

(3) Fire Flow

In general, fire flow requirements are closely related to land use, as the quantity of water necessary for fire protection varies with the type of development, life hazard, type of occupancy, and degree of fire hazard (based on such factors as building age or type of construction). Water service to the Project Site is currently provided by the California Water Service Company (CWS) and the City of Los Angeles Department of Water and Power (LADWP).[21] The CWS provides water service to the Project Site via four connections to CWS water mains in 220th and Carson Streets ranging in size from six to 33 inches, while LADWP provides non-continuous backup water service to the Project Site via one connection to a 78-inch LADWP water main in 220th Avenue.[22] Water pressure tests were conducted in 2009 and 2010 of the CWS water mains serving the Project Site (a pressure test was not conducted of the 78-inch LADWP water main since LADWP does not typically allow new individual connections to its distribution mains).[23] The results of the pressure tests are provided in **Table 4.K.1-3**, *Water Pressure Test Results – Existing Conditions*.

Table 4.K.1-3

Water Pressure Test Results – Existing Conditions

Location	Static Pressure	Residual Pressure	Total Flow Observed	Calculated Flow at 20 PSI
220th Street and Vermont Avenue, west of Vermont Avenue	78 psi	63 psi	4,545 gpm	9,434 gpm
Carson Street and Normandie Avenue	75 psi	68 psi	2,148 gpm	6,538 gpm
220th Street and Vermont Avenue, east of Vermont Avenue	80 psi	28 psi	1,358 gpm	1,467 gpm

Source: Perkins + Will, Harbor UCLA Medical Center Master Plan, Utility and Circulation Existing Conditions Assessment, p.F-5, July 11, 2011.

The pressure test conducted at 220th Street and Vermont Avenue, east of Vermont, was obtained from a hydrant connected to a 6-inch water main in 220th which may have caused the significant pressure drop for this test compared to the other tests which were taken off of 10-inch or larger mains.[24] Although there appears to be significant pressure in the area, the Project's civil engineer recommended that future development at the Project Site verify if the existing system can supply adequate pressures and flows based on final development type and building fire flow requirements.[25]

The existing Hospital tower, recently completed hospital expansion, Harbor-UCLA Professional Building, and several other of the more modern buildings on the Campus are currently sprinklered and standpiped, with

[20] *Ibid, Figure 12.6.*

[21] *Perkins + Will, Harbor UCLA Medical Center Master Plan, Utility and Circulation Existing Conditions Assessment, p.F-4, July 11, 2011.*

[22] *Ibid.*

[23] *Ibid.*

[24] *Ibid.*

[25] *Ibid.*

existing Hospital water pressure deemed adequate at around 80-85 psi.[26] It is assumed that most of the smaller on-site buildings, including most if not all of the World War II-era army barracks, are currently unsprinklered.

b. Regulatory Framework Summary

The following subsections discuss the various codes, regulations and polices applicable to fire protection and EMS services at the federal, state and local levels.

(1) Federal

There are no federal fire protection and EMS regulations pertinent to the Project.

(2) State

(a) California Code of Regulations (CCR)

The California Code of Regulations (CCR) Title 24, 2013 California Building Standards Code, Part 2, California Building Code (CBC) and Part 2.5, California Residential Building Code, is a compilation of building standards including fire safety standards for residential and commercial buildings. CBC standards are based on building standards that have been adopted by State agencies without change from a national model code, building standards based on a national model code that have been changed to address particular California conditions, and building standards authorized by the California legislature not covered by the national model code. Title 24, Part 9 contains the California Fire Code (CFC). Typical fire safety requirements of the CFC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The CFC applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. The County has adopted the 2013 Edition of the CFC, by reference, with certain changes and amendments.

(3) Local

(a) Los Angeles County General Plan

As a County-run facility operated on County-owned land, the proposed Project is subject to the Los Angeles County General Plan Update (2035), including the Public Services and Facilities Element and the Safety Element. Applicable goals and polices from these Elements are identified below:

> **Goal PS/F 1:** A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.
>
> - **Policy PS/F 1.1:** Discourage development in areas without adequate public services and facilities.
>
> - **Policy PS/F 1.2:** Ensure that adequate services and facilities are provided in conjunction

[26] *Perkins+Will, Harbor-UCLA Medical Center Campus Master Plan, p.63, June 30th, 2012*

with development through phasing or other mechanisms.

- **Policy PF/F 1.6:** Support multi-faced public facility expansion efforts, such as substations, mobile units, and satellite offices.

Goal S 4: Effective County emergency response management capabilities.

- **Policy S 4.1:** Ensure that residents are protected from natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.

- **Policy S 4.2:** Support County emergency providers in reaching their response time goals.

- **Policy S 4.3:** Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning.

(b) LACFD Strategic Plan, Engineering Our Future (2012)

LACFD's Strategic Plan is designed to address short- and long-term challenges by providing a roadmap to maximize operational effectiveness, strengthen fiscal sustainability, and maximize integrated services delivery. The Strategic Plan is designed to carry out the County's public safety mission in meeting the current and future needs of over four million residents living and working in communities throughout the County.

(c) LACFD Response Time Standards

LACFD's current response time standard for urban areas is five minutes for fire EMS and eight minutes for advanced life support (paramedic) service.[27]

(d) Los Angeles County Code

(i) Title 32, Fire Code

The County of Los Angeles Fire Code (Fire Code) includes provisions that address fire apparatus access roads, adequate road widths, fire flow requirements, and fire hydrant spacing. For example, Section 105.7.10.1, Land Development Review, requires LACFD review and approval for applications, including parcel maps, final maps, conditional use permits, environmental impact reviews, zone changes, and water plan reviews. Section 503.1.2, et seq., contains requirements for fire apparatus access roads, marking of fire lanes and high-voltage transmission lines, and traffic-calming devices. Section 903.2.11.3, requires the installation of an automatic sprinkler system for buildings with more than three stories. Section 903.7 states that in multistory buildings four stories or higher, the automatic fire sprinkler system shall include an indicating control valve, water flow detector with an alarm bell, drain valve, and inspector's test valve with sight gauge.

[27] *County of Los Angeles, Environmental Impact Report for the Los Angeles County General Plan Update (2035) SCH No. 201108104, p.5.14-1. Certified March 24, 2015. Also, Kevin T. Johnson, Acting Chief, Forestry Division, Prevention Services Bureau, LACFD, letter dated February 10, 2016 and included in Appendix G-1 of this Draft EIR.*

LACFD personnel have indicated that on-site fire flow requirements will be determined using Table B105.1 of the Fire Code.[28] The maximum required fire flow established in the table is 6,000 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure for Type IA, IB, IIA, and IIA building construction types, and 8,000 gpm at 20 psi residual pressure for Type IIB, IIIB, IV, V-A, and V-B building construction types.[29] Appendix B, Section B105.2 states that a reduction in required fire flow of up to 50 percent is allowed when automatic sprinkler systems are provided.[30]

(ii) Title 20, Utilities

Los Angeles County Code (LACC) Title 20, Part 2, Design, Section 12.16.060, Minimum Fire Flow and Fire Hydrant Requirements, specifies that the minimum fire flow and fire hydrant requirements shall be determined by the Fire Chief or Fire Marshal based on local conditions, exposure, congestion, and construction of buildings. Should a minimum fire flow in excess of 5,000 gpm be required by the Fire Chief or Fire Marshal, the determination must first be approved by the water appeals board. Where buildings are constructed of fire-resistive materials and/or provided with automatic sprinkler systems, required fire flow may be reduced. For required fire flows greater than 2,000 gpm, the total required fire flow must be available from no more than the two closest public street fire hydrants to the proposed structure.

(iii) Title 21, Subdivisions

LACC Title 21, Chapter 21.24, Part 1, Design Standards, contains additional access road requirements to ensure adequacy of a route of access during evacuation and on the deployment of fire equipment or other services under emergency conditions. Part 2, Mapping Specifications, Section 21.44.250, requires that each easement shown for any storm drain or sewer or fire access to be designated on the final map or parcel map. Part 3, Local Streets and Ways, Section 21.24.220, requires the provision of fire protection access easements or fire breaks.

(e) Office of Emergency Management and Operational Area Emergency Response Plan

The Office of Emergency Management (OEM) is responsible for organizing and directing the preparedness efforts of the Emergency Management Organization of the County and is the day-to-day County Operational Area coordinator. As part of this effort, OEM prepares and maintains an Operational Area Emergency Response Plan (OAERP) which establishes the coordinated emergency management system including prevention, protection, response recovery, and mitigation.[31]

3. ENVIRONMENTAL IMPACTS

a. Methodology

Fire protection and EMS needs relate to the size of the population and geographic area served, the number and types of calls for service, and the characteristics of the community and the project. Changes in these factors resulting from the proposed Project may increase the demand for services. LACFD evaluates the

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[28] *Perkins + Will, Harbor UCLA Medical Center Master Plan, Utility and Circulation Existing Conditions Assessment, p.F-6, July 11, 2011.*

[29] *Ibid. Also, Kevin T. Johnson, Acting Chief, Forestry Division, Prevention Services Bureau, LACFD, letter dated July 16, 2015. Included in Appendix G-1, Fire Department Correspondence, of this EIR.*

[30] *Ibid.*

[31] *Los Angeles County, Office of Emergency Management, About OEM, http://lacoa.org/aboutoem.html. Accessed July 15, 2015.*

demand for fire prevention and protection services on a project-by-project basis, including review of the proposed land uses, fire protection needs, design features, and estimated emergency response times, to determine if the Project would require new or altered fire-fighting facilities, personnel, and service. Additionally, consideration is given to the size and components of the Project, fire flow necessary to accommodate the Project, fire hydrant sizing and placement standards, access, and the potential to use or store flammable and/or hazardous materials. Based on these factors, a determination is made as to whether LACFD would require new or physically altered facilities to maintain acceptable service levels, the construction of which could result in a potentially significant environmental impact. As part of this analysis, LACFD staff was consulted and their responses incorporated regarding the Project, and applicable information sources, plans and requirements were reviewed and the Project's consistency with them assessed.

b. Thresholds of Significance

The potential for impacts on fire protection and EMS is based on thresholds derived from the County's Initial Study Checklist questions, which are based in part on Appendix G of the State *CEQA Guidelines*. This question is as follows:

(XIV) Public Services. Would the project:

a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- Fire protection?

Based on this factor, the Project would have a potentially significant impact on fire protection and EMS if it would result in the following:

FIRE-1: Would the Project require the addition of a new fire station, or the expansion, consolidation or relocation of an existing fire station, to maintain services, which would result in a substantial adverse physical impact on the environment?

c. Project Characteristics or Design Features

(1) Project Characteristics

The Project would address the future needs of the communities served by the Harbor-UCLA Medical Center Campus. The existing Campus contains 1,279,284 square feet of developed floor area, including the recently completed Surgery and Emergency Room Replacement Project (Replacement Project). The Master Plan Project encompasses construction of a New Hospital Tower that meets current seismic building codes, renovation of the existing Hospital tower to house non-acute care support uses, replacement of aging facilities (including approximately a dozen WWII barracks), reconfigured vehicular and pedestrian access to and circulation within the Campus, and implementation of a cohesive site design that enhances the experience of staff, patients, and visitors. This would result in a net increase of 1,178,071 square feet of building floor area, an increase in building heights across the Campus by an average of two floors above

grade (with the Existing and New Hospital Towers eight floors each above grade), and increases in total Campus-wide employees and annual patient visits of 37 percent (2,030 employees) and 34 percent (185,745 visits), respectively. The Project would also include a temporary ground-level helistop just west of the LA BioMed Campus along the Project Site's southern boundary, as well as a new permanent rooftop helistop on the New Hospital Tower. Project construction would be anticipated to occur in phases through the year 2030. See Chapter 2.0, Project Description, of this Draft EIR for further project description, including Figure 2-6, *Harbor-UCLA Medical Campus Master Plan Site Plan*, and Table 2-1, *Existing and Proposed Land Use Summary*.

The Project would connect to the CWS water system at various locations along Carson Street, Vermont Avenue, and 220th Street, with domestic water and water for fire flow provided on-site via a combined looped network of primarily 12-inch mains generally located within the primary vehicular circulation areas.[32] It is anticipated that backup water service would continue to be provided by LADWP.[33]

(2) Project Design Features

The Master Plan Project includes the following Project Design Features (PDFs) that are specific to fire protection and emergency medical services:

PDF-FIRE-1: The applicants, designers, construction contractors, and tenants for/of development under the Project will implement the conditions of approval identified by LACFD in its November 2014, July 2015, and January 2016 correspondence, which are included in Appendix G-1, *Fire Department Correspondence*, of this Draft EIR.

The LACFD conditions of approval referenced above are summarized below and include, but are not limited to, the following:

- Provide multiple ingress/egress access for circulation of traffic and emergency response vehicles.
- Every building constructed shall be accessible to Fire Department apparatus by way of Fire Apparatus Access Roads of not less than the minimum widths prescribed in Fire Code Section 503.2.1, with roadways extending to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.
- Fire Apparatus Access Roads shall be a minimum unobstructed width of 28 feet exclusive of shoulders and have unobstructed vertical clearance "clear to sky"
- Dead-end Fire Apparatus Access Roads in excess of 150 feet in length shall be provided with an approved Fire Department turnaround.
- Provide approved signs or other approved notices or markings that include the words "NO PARKING – FIRE LANE".

[32] *Perkins + Will, Harbor UCLA Medical Center Master Plan, Utility and Circulation Existing Conditions Assessment, p.D-2, July 11, 2011.*

[33] *Ibid.*

- Fire Apparatus Access Roads must be installed and maintained in a serviceable manner prior to and during the time of construction.
- Approved building address numbers, building numbers, or approved building identification shall be provided and maintained so as to be plainly visible and legible from the street fronting the property.
- The method of gate control shall be subject to review by the Fire Department prior to approval, and shall meet specified width, positioning, emergency power, and emergency access requirements.
- The development may require fire flows up to 8,000 gpm at 20 psi residual pressure for up to a five-hour duration. Final fire flows will be based on the size of buildings, the installation of an automatic fire sprinkler system, and type(s) of construction used.
- Fire hydrant spacing shall be every 300 feet for both the public and the on-site hydrants, with no portion of a lot frontage more than 200 feet via vehicular access from a public hydrant, and no portion of a building exceeding 400 feet via vehicular access from public fire hydrant.
- All required public fire hydrants shall be installed, tested, and accepted prior to beginning construction.
- Provide a Fire Department-approved fire sprinkler system in all proposed buildings.

d. Project Impacts

Threshold FIRE-1: Would the Project require the addition of a new fire station, or the expansion, consolidation or relocation of an existing fire station, to maintain services, which would result in a substantial adverse physical impact on the environment?

Impact Statement FIRE-1: *The Project would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing fire station to maintain service due to compliance with County Code and LACFD requirements and PDF-FIRE-1 that address fire safety, emergency access, emergency response times, and fire flow. Therefore, construction and operational impacts would be less than significant.*

(1) Construction

Construction activities associated with the Project would include demolition, site preparation including trenching for utilities, and construction of new buildings and street/sidewalk improvements in various phases through the year 2030. These periodic construction activities could temporarily increase demand for fire protection and EMS, and may cause the occasional exposure of combustible materials such as wood, plastics, sawdust, coverings and coatings, heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings. However, in compliance with California Division of Occupational Safety and Health Administration (Cal/OSHA) and Fire Code requirements, construction managers and personnel would be trained in fire prevention and emergency response. Fire suppression equipment specific to construction would be maintained on-site. As required by the LACFD and Project Design Feature PDF-FIRE-1, all required fire

hydrants would be nstalled, tested, and accepted prior to construction. Additionally, Project construction would comply with applicable existing codes and ordinances related to the maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials. Therefore, given State, County and LACFD regulations that require construction personnel to be trained in fire prevention and emergency response, required maintenance of fire suppression equipment, and implementation of proper procedures for storage and handling of flammable materials on the Project Site during construction, the demand for fire protection and EMS during construction would be less than significant.

Regarding emergency access and response times during construction, construction staging and construction worker parking associated with the Project would be accommodated on the Project Site, limiting potential conflicts with traffic on local streets. In addition, as required by the LACFD and PDF-FIRE-1, emergency access would be provided and maintained throughout construction to existing uses, new uses, and fire hydrants. Furthermore, while the Project would generate construction traffic, require the construction of off-site utility and roadway improvements, and potentially require temporary lane closures along one or more of the four streets bordering the Project Site: (1) as discussed in Section 4.L., *Transportation and Traffic*, with the implementation of PDF-TRAF-1, which requires the implementation of a County-required construction traffic management plan, Project traffic impacts during construction would be less than significant; and (2) the Project would implement Mitigation Measure FIRE-1, which requires that Project construction contractors coordinate with LACFD concerning any planned temporary lane closures and other construction activities that could affect emergency access and emergency response times. Therefore, impacts on emergency access and response times during Project construction would also be less than significant.

(2) Operation

(a) Fire Safety

The Project would be subject to the requirements of the County Code (e.g., Building Code, Fire Code, Utilities Code, and Subdivision Code) for new construction that address structural design, building materials, site access, fire lanes, fire flow requirements, automatic sprinkler systems, alarms, and smoke detectors. Per PDF-FIRE-1, the Project would also implement the LACFD fire protection and EMS conditions of approval identified by LACFD in its November 2014, July 2015, and January 2016 correspondence, including but not limited to: provision multiple ingress/egress for emergency response vehicles; provision of Fire Apparatus Access Roads extending to within 150 feet of all structures; provision of the LACFD-specified fire flow; provision of fire hydrants every 300 feet and no portion of a building exceeding 400 feet from a fire hydrant; and provision of fire sprinklers in all buildings. In addition, the LACFD would review and approve all Project plans at the building permit and plan check phases of the Project to ensure compliance with applicable Fire Code requirements, thereby minimizing the risk of increased operation fire safety hazards. Furthermore, the Applicant would be required to submit an Emergency Response Plan for review and approval by LACFD to include, but not be limited to, mapping of site access and emergency exits, evacuation routes for vehicles and pedestrians, and locations of the nearest hospitals and fire stations. Finally, because the Project would replace many aging on-site buildings that have not been constructed to current Fire Code standards with new buildings constructed to such standards, fire safety at the Project Site would be improved. Therefore, with compliance applicable County Code requirements and implementation of Project Design Feature PDF-FIRE-1, Project operation would not have fire safety issues that would require the construction of new or physically altered fire stations, and the impact would be less than significant.

The Project would increase the net floor area, employee population, and annual patient visits at the Project Site by 48 percent (1,178,071 sf), 37 percent (2,030 employees), and 34 percent (185,745 patient visits), respectively. These increases could potentially result in an increase in calls for LACFD fire protection and EMS service from the Project Site. However, several factors would minimize any such increase. First, because the Project would replace many aging on-site buildings that have not been constructed to current Fire Code standards with new buildings constructed to such standards, calls for fire protection service resulting from dangerous or flammable conditions would be expected to decrease. Second, because a portion of the new on-site employees would be expected to be derived from the existing local labor pool, and because patients visiting the Project would already reside in the area, many of the additional employees and most if not all of the additional patients already generate a demand for service from LACFD Fire Stations 36 and 127. Third, the Project Site is already fully developed and already generates service calls from LACFD such that the Project would not generate service demand in an area where service demand does not already exist. Fourth, the Project would include an increase in hospital and other medical uses, such that it is reasonable to assume that a portion of the on-site EMS needs under the Project would be provided by the proposed uses themselves rather than be provided by LACFD. Fifth, per Mitigation Measure FIRE-2, the Project would pay the LACFD Developer Fee which would help pay for any new LACFD equipment/personnel required at LACFD Station 36 to serve the Project. Lastly, the LACFD did not identify the need for new or physically altered fire stations associated with the Project in its comments on the Project's Notice of Preparation or other LACFD correspondence included in Appendix G-1 of this Draft EIR. Therefore, with compliance applicable County Code requirements and implementation of PDF-FIRE 1 and Mitigation Measure FIRE-2, Project operation would not be expected to increase calls for LACFD fire protection and EMS service that would require new or physically altered fire stations, and the impact would be less than significant.

(b) Emergency Response Times

As discussed previously, LACFD Fire Station 36 is located 0.7 miles southeast of the Project Site and has an estimated existing emergency response time to the Project Site of 4:34 minutes which falls within the LACFD's response time goals of five minutes for the first-arriving unit for fire and emergency medical services and eight minutes for the advance life support unit (paramedic) unit in urban areas.

Development of the Project would increase the existing employee population and annual patient visits at the Project Site, and would increase operational traffic in the Project vicinity. As determined by the traffic analysis in Section 4.L., *Transportation and Traffic*, of this Draft EIR, Project operational traffic would significantly impact 10 intersections, even with implementation of all feasible mitigation measures. Accordingly, traffic associated with the Project could potentially affect LACFD emergency vehicle response times in the area.

Impacts on traffic that could cause delays in emergency response times are addressed through PDF-TRAF-1 and PDF-TRAF-2. These measures would provide for the installation roadway and traffic control improvements, including a Construction Traffic Management Plan, flag persons, prohibition of construction worker parking on residential streets, and more, which would improve traffic conditions and facilitate emergency access to the Project Site. In addition, emergency response is routinely facilitated, particularly for high priority calls, through use of sirens to clear a path of travel, driving in the lanes of opposing traffic, use of alternate routes, and multiple station response. In light of the above, and the fact that emergency response times to the Project Site from Station 36 are currently within the LACFD's response time goals, Project operational impacts on emergency response times would not require new or physically altered fire stations, and the impact would be less than significant.

(c) Emergency Access

As discussed previously, emergency access to the Project Site is provided by each of the four streets bordering the Project Site (e.g., West Carson Street, W 220th Street, Normandie Avenue, and S. Vermont Avenue), with three of these streets representing major arterials (e.g. major streets). Also as discussed previously, West Carson Street and I-110 represent the designated disaster routes serving the Project Area. The Project would not permanently close any of these streets or any of the lanes of any of these streets. Furthermore, any roadway and traffic improvements on any of these streets would comply with all applicable County Code requirements and would be reviewed and approved by the Los Angeles County Department of Public Works (see Section 4.L., *Transportation and Traffic*, for further discussion). Therefore, emergency access to the Project Site and the other properties in the Project vicinity would be maintained during Project operation, Project operational impacts on emergency access would not require new or physically altered fire stations, and the impact would be less than significant.

As indicated in Figure 2-8, *Vehicular Circulation Plan*, in Chapter 2.0, *Project Description*, of this Draft EIR, vehicular access into the Project Site would be provided by: a signalized driveway on Carson Street, near the Existing Hospital, which would serve as the main public entry into the Project Site; a second new signalized driveway on Carson Street west of the main entry, one driveway each on Vermont Avenue and Normandie Avenue, and two driveways on 220th Street. A comprehensive on-site signage and wayfinding program would also be implemented to aid in navigation, including naming of the internal streets, naming and numbering of on-site buildings, the provision of street signs at intersections (unlike under existing conditions), and the provisions of directory boards throughout to aid in navigation. Furthermore, all Project driveways and internal streets would be designed and constructed in accordance with applicable County cross-section requirements, as opposed to many of the driveways and on-site streets which were added on a piecemeal basis in the 1940s in the absence of Code requirements. Finally, in accordance with PDF-FIRE-1: every building constructed would be accessible to Fire Department apparatus by way of Fire Apparatus Access Roads designed to County Fire Code specifications and extending to within 150 feet of all exterior walls; Fire Apparatus Access Roads would be marked "NO PARKING – FIRE LANE"; all gate controls would be reviewed and approved by the Fire Department; and the Fire Department would be provided with all gate and building access codes. And again, much of the existing on-site circulation system is not currently designed to County Fire Code specifications. Therefore, emergency access into and within the Project Site would be substantially improved, Project operational impacts on emergency access would not require new or physically altered fire stations, and a beneficial impact would occur.

(d) Fire Flow

The Project would intensify the hospital, medical and office use of the Project Site. According to the LACFD's Land Development Unit: (1) the Project may require fire flows of up to 8,000 gallons per minute (gpd) at 20 pounds per square inch (psi) residual pressure for up to a five-hour duration, although final fire flow requirements will be determined during the building permit and fire plan check phases; (2) fire hydrant spacing shall be every 300 feet for both the public and on-site fire hydrants, which each proposed building either located a maximum of 25 feet from a fire hydrant or constructed with two hour fire walls; and (3) an approved automatic fire sprinkler system is required for all proposed on-site buildings.[34] In accordance with PDF-FIRE-1, the above would be provided under the Project.

[34] *Kevin T. Johnson, Acting Chief, Forestry Division, Prevention Services Bureau, LACFD, letter dated February 10, 2016 and included in Appendix G-1 of this Draft EIR.*

As discussed previously, water service to the Project Site is currently provided by CWS and LADWP, with the CWS providing water service via four connections to CWS water mains in 220th and Carson Streets ranging in size from six to 33 inches, while LADWP provides non-continuous backup water service via one connection to a 78-inch LADWP water main in 220th Avenue.[35] Based on the 2009 and 2010 water pressure test results discussed previously for the CWS water mains and summarized in Table 4.K.1-3, adequate water pressure (i.e., 9,434 gpm at 20 psi residual[36]) appears to be available in the 220th Street and Vermont Avenue water main to meet the LACFD-identified preliminary fire flow requirements for the Project, although final fire flow requirements would be determined during the building permit and fire plan check phases of the Project, and such fire flow requirements shall be complied with by the Project, in accordance with PDF-FIRE-1.

Based on the above, adequate fire flow is available to serve the Project, Project operational impacts on fire flow would not require new or physically altered fire stations, and the impact would be less than significant.

e. Cumulative Impacts

Chapter 3.0, General Description of Environmental Setting, of this Draft EIR provides a list of 26 related projects that are planned or are under construction within an approximately 2.4 mile radius of the Project. These projects are summarized in Table 3-1, *Related Projects List*, and shown on Figure 3-1, *Related Projects Map.* As shown in Figure 3-1, these related Projects occur in several jurisdictions, including unincorporated Los Angeles County and the Cities of Los Angeles Carson and Torrance. The Project and related projects would increase the daytime and 24-hour populations and introduce structures that would create increased demand for LACFD fire protection and EMS. This increase in demand could potentially require additional personnel and resources at the LACFD to provide adequate service levels and to maintain existing response times. LACFD operates under a regional concept in its approach to providing fire protection and emergency medical services anywhere in the LACFD service territory without regard to jurisdictional or municipal boundaries.[37] Therefore, all 26 related projects are considered in this analysis without regard to the jurisdictional boundaries of a specific fire station.

Although a cumulative demand for LACFD fire protection and EMS could occur, this demand would be reduced through regulatory compliance, similar to the Project. All the related projects would be subject to review by the LACFD (or the Cities of Los Angeles, Carson and Torrance) for compliance with applicable fire and building code requirements related to fire safety, emergency response times, emergency access, and fire flow which have been formulated to avoid significant fire protection and EMS impacts.

In addition, the LACFD's operating budget, and the operating budgets of the other jurisdictions, include funds generated by property tax revenues which are supplemented by tax-base expansion. Tax-base revenue from Project development—together with revenues from past, present, and reasonably foreseeable future projects—would generate funding for fire protection services. This funding would support any needed increases in staffing, fire stations, and equipment to keep response times within acceptable limits (i.e., five minutes for first arrival and eight minutes for paramedic response within urban areas and eight minutes for first arrival and 12 minutes for paramedic response within suburban areas). Also, some or all of the

[35] *Perkins + Will, Harbor-UCLA Medical Center Master Plan, Utility and Circulation Exiting Conditions Assessment, p.F-4, July 11, 2011.*

[36] *Ibid, p.F-5.*

[37] *Kevin T. Johnson, Acting Chief, Forestry Division, Prevention Services Bureau, LACFD, letter dated February 10, 2016 and included in Appendix G-1 of this Draft EIR.*

jurisdictions within which the related projects are located require payment of developer fees to help funding additional fire protection and EMS facilities and services necessitated by new development.

Lastly, while the cumulative demand for fire protection facilities could potentially contribute to the future need for a new fire station in the West Carson community, and while the construction of any such station could potentially result in substantial adverse physical impacts, it would be speculative to predict where and when a new station would be needed as LACFD does not currently have plans for new fire protection facilities in the area. Therefore, it would be speculative to predict the environmental effects resulting from any such improvements, and per State *CEQA Guidelines* Section 15145 regarding speculation, no further analysis is required.

Based on the above, the Project would not substantially contribute to cumulatively considerable impacts regarding fire protection and EMS. Therefore, cumulative impacts would be less than significant.

4. MITIGATION MEASURES

In order to reduce impacts related to fire protection and EMS to less than significant, the following mitigation measures are required:

Mitigation Measure FIRE-1: The Project construction contractors shall regularly notify and coordinate with the LACFD concerning Project construction activities, including any on- and off-Campus lane closures and other construction activities that could affect emergency access and emergency response times.

Mitigation Measure FIRE-2: Prior to the issuance of building permits, the applicants for development under the Project will pay the prevailing LACFD Developer Fee, as applicable.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Project would have less than significant impacts on fire protection and EMS with adherence to applicable fire protection and emergency services requirements and implementation of the Project Design Features and mitigation measures provided above.

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