

## K.2 FIRE PROTECTION

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### 1. INTRODUCTION

This section analyzes the proposed project's impacts relative to the fire protection and emergency medical services provided by the Long Beach Fire Department (LBFD). The analysis addresses fire protection facilities, services, and response times, emergency access, and fire-flow. The analysis is based on information provided by the LBFD and is incorporated in Appendix J of this Draft EIR.

The Public Safety Element of the City's General Plan includes the City's goals, policies, and programs related to fire prevention in the City. Please refer to Section IV.H, *Land Use*, for a discussion of the proposed project's consistency with the applicable goals, policies and programs of the Public Safety Element.

### 2. ENVIRONMENTAL SETTING

#### a. Regulatory Environment

##### (1) State of California

The California Code of Regulations (CCR) Title 24 (California Building Code [CBC]) 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. Typical fire safety requirements of the CBC 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 CBC applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Chapter 18.48 of the Long Beach Municipal Code (LBMC) includes several CBC fire safety regulations that have been amended and incorporated into the LBMC. This includes the use of fire-resistant building materials, fire suppression systems, and other fire safety elements related to the design and construction of buildings.

Because the project site is located in the City of Long Beach (and State of California) and involves construction of new structures, the proposed project is subject to the requirements of the CBC and LBMC.

##### (2) City of Long Beach Municipal Code

Title 18 (Building and Construction Code) of the LBMC includes Chapter 18.23 (Fire Facilities Impact Fees) and Chapter 18.48 (Fire Code). Chapter 18.23 imposes a fire facilities impact fee on residential and nonresidential development for the purpose of assuring that new development pay its fair share of the costs required to support needed fire facilities and related costs necessary to accommodate such development. The fee is imposed for every dwelling unit of a residential development and per gross square foot of floor area for nonresidential development. The fire facilities impact fee is to be paid prior to receipt of the certificate of occupancy and is utilized for the acquisition of new property, the construction of new facilities, and the purchasing of new equipment.

As detailed in Chapter 18.48 of LBMC, the Long Beach Fire Code (Fire Code) incorporates the California Fire Code, 2007 Edition (California Code of Regulations, Title 24, Part 9), which incorporates International Fire Code, 2006 Edition. The Fire Code regulates and governs the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials, and devices, and from conditions hazardous to life or property in the occupancy of buildings.<sup>1</sup>

Chapter 1 of the Fire Code establishes that the Fire Chief is authorized to make and enforce such rules and regulations for the prevention and control of fires, fire hazards and hazardous materials incidents as may be necessary from time to time. Chapter 2 of the Fire Code includes definitions, specifically that high-rises are to be defined as, “every building of any type of construction or occupancy having floors used for human occupancy located more than seventy-five (75) feet above the lowest floor level having building access (see California Building Code, Section 403.1.2) or the lowest level of Fire Department vehicle access, whichever is more restrictive, except buildings used as hospitals as defined in section 1250 of the California Health and Safety Code.”

Chapter 5 includes requirements for access. Specifically, it requires a minimum width of 26 feet and 15 vertical feet for fire access roads and a minimum turning radii of 28 feet, in addition to requirements for address numbers and key box maintenance. Finally, Chapter 5 concludes with specific requirements for emergency landing helicopter facilities on high-rise buildings. It includes requirements for approaches, landings, roof perimeter fencing, wind devices, standpipes, markings, and communication systems.

Chapter 9 establishes regulations for fire protection systems and equipment. It requires that all new commercial, industrial and non-residential buildings that require two or more exits or that are greater than 3,000 square feet be protected by an automatic sprinkler system along with all new single-family residences greater than 4,000 square feet and multi-family residential units. It also includes requirements for outdoor systems, minimum water pressure for standpipe outlets, requirements for evacuation plans for buildings over three stories, control panels, and that all boats and marinas are equipped with a standpipe system.

Chapter 10 of the Fire Code further discusses access requirements. It requires protection of means of egress for the fire department vehicles, along with requirements for roof access. Specifically, for buildings four stories or taller, that one stairway extends to the roof unless the roof has a slope steeper than 33 percent.

## **b. Physical Environment**

### **(1) Fire Protection Facilities and Services**

The LBFD provides fire protection, fire prevention, and emergency services to the entire City of Long Beach. The LBFD has approximately 544 uniformed and civilian personnel, which serves a population of approximately 503,251 residents over an area of approximately 52.3 square miles, including seven miles of beaches and 22 square miles of waterways. In 2009, the LBFD responded to more than 61,956 emergency calls ranging from fire, medical, non-fire, hazmat, lifeguard/marine safety, and urban search and rescue related incidents.<sup>2</sup> The LBFD currently consists of 23 fire stations (including two fire boat stations in the

<sup>1</sup> *City of Long Beach Municipal Code, Title 18, Chapter 18.48, Section 18.48.010.*

<sup>2</sup> *The most recent year that total statistics are available.*

port area, one urban search and rescue station located in the harbor area, and one airport fire station), eight lifeguard facilities (41 seasonal stations), a training center, emergency communications and operations center, and fire department headquarters. On any given day, there are approximately 133 full-time firefighters working 24-hour shifts.

The project site is located within Fire District Zone 8E, as designated by the LBFD. Within Fire District Zone 8E, there are six (6) fire stations available to serve the project site. **Figure IV.K.2-1, Fire Stations Located in the Vicinity of the Project Site**, illustrates the six stations that would serve the project site. The location, distance from the project site, staffing, and equipment the six fire stations that would be available to serve the project site are summarized in **Table IV.K.2-1, Fire Stations Located in the Vicinity of the Project Site**. As shown in Figure IV.K.2-1, Fire Station No. 21 (Rescue Boat 1) at 225 Marina Drive is located approximately 0.4 miles south of the project site. However, this station consists of only a rescue boat and does not include engines or ambulances that would respond to calls for service at the project site. Fire Station No. 8 located at 5365 E. 2nd Street approximately 1.1 miles west of the site would likely be the first to respond to the project site in the event of an emergency and would thus, be designated the “first-in” station. “Second call” stations are fire stations that support the “first-in” station. As shown in Table IV.K.2-1, Fire Station No. 14 would be designated as “second call” stations to support Fire Station No. 8 in the event of an emergency at the project site. Fire Station No. 14 is located at 5200 Eliot Street, approximately 1.4 miles west of the project site.

**Table IV.K.2-1**

**Fire Stations Located in the Vicinity of the Project Site**

<b>Station No./Location</b>	<b>Distance From Project Site</b>	<b>Average Unit Response Times<sup>a</sup></b>	<b>24-Hour Staffing</b>	<b>Equipment</b>
<b>Rescue Boat No. 1 (Fire Station 21)</b> 225 Marina Drive	0.4 miles	7 minutes	14	1 Rescue Boat
<b>Fire Station No. 8</b> 5365 E. 2nd Street	1.1 miles	6 minutes	4	1 Engine
<b>Fire Station No. 14</b> 5200 Eliot Street	1.4 miles	6 minutes	8	1 Paramedic Rescue (PR) Ambulance, 1 Litter Truck
<b>Fire Station No. 4</b> 411 N. Loma Drive	2.4 miles	10 minutes	4	1 Engine, 1 Basic Life Support (BLS) Ambulance
<b>Fire Station No. 22</b> 6340 Aterton Avenue	2.2 miles	8 minutes	5	1 Engine
<b>Fire Station No. 17</b> 2241 Argonne Avenue	3.1 miles	7 minutes	16	1 Engine, 1 BLS Ambulance, 1 (PR) Ambulance

<sup>a</sup> All drive times are for Advanced Life Support (ALS) calls for service. Response times are rounded to the nearest minute.

Source: Written correspondence from Kenneth Portolan, Assistant Chief, Operations Bureau, Long Beach Fire Department, March 8, 2010.

**(2) Emergency Response**

The average citywide emergency response time from dispatch to arrival is approximately five minutes. LBFD goals for emergency response are to respond to 90 percent of emergency calls within five minutes and to

respond to paramedics' calls within eight minutes. In addition, all units on the first alarm are to arrive within eight minutes of dispatch for reported structure fires. As previously described, Fire Station No. 8 is located approximately 1.1 miles from the project area and is anticipated to arrive at the project site within five (5) minutes. In addition, seven (7) other fire stations are in the vicinity that would be available to serve the project site, ranging in distance from 0.4 to 3.1 miles. Average unit response times for the fire stations serving the project site are included in Table IV.K.2-1. Response times will vary depending on the location of the fire engine responding to the incident. During an emergency, calls received by the dispatch center are transmitted to the engine company that has jurisdiction over the incident location. In the event that the jurisdictional engine company is not available, the next closest available unit will respond to the call. Depending on the incident type, several units may be dispatched relative to the level of service required for the specific incident type.

### **(3) Emergency Access**

Emergency access to the project site is currently provided via the surrounding roadways including Pacific Coast Highway (PCH), 2<sup>nd</sup> Street, and Marina Drive. The primary access routes from the first- and second-in fire stations that serve the site within the City of Long Beach are as follows:

- Station 8: East on 2<sup>nd</sup> Street to Marina Drive and/or PCH to the project site
- Station 14: East on Colorado Street to PCH, then south to the project site

### **(4) Fire-Flow**

Fire flow is the quantity of water available or needed for fire protection in a given area and is normally measured in gallons per minute (gpm), as well as the duration of flow. The City adopted the CFC, Appendix B, fire flow requirements, with some amendments and modifications, as part of the part of the City's Municipal Code. Fire flow requirements are based on building types and floor area and range from 1,250 to 8,000 gallons per minute (gpm) at 20 pounds per square inch (psi). The modifications include amendments to fire extinguisher and storage requirements. Generally, the intent of the CFC is to prescribe regulations consistent with nationally recognized good practices for the safeguarding of life and property from the hazards of fire and explosion.

In accordance with the CFC, LBFD requires the installation of sprinkler systems in many new buildings, including retail buildings in excess of 5,000 square feet and buildings greater than 55 feet in height. In addition, on-site hydrants are required in any portion of a project site that exceeds the allowable distance from a public hydrant located in the right-of-way. Fire flow requirements are subject to LBFD standards based on the type of building and use on a case by case basis.

## **3. ENVIRONMENTAL IMPACTS**

### **a. Methodology**

Potential impacts related to fire protection were evaluated based on the ability of existing and planned LBFD staffing, equipment, and facilities to meet the additional demand for fire protection and emergency medical services resulting from development of the proposed project and whether it conflicts with the emergency response plan. The LBFD evaluates service impacts of new development by assessing the net addition to the



- 1 Fire Station 4**  
411 N. Loma Avenue  
Long Beach, California 90814
- 2 Fire Station 8**  
5365 E. Second Street  
Long Beach, California 90803
- 3 Fire Station 14**  
5200 Eliot Street  
Long Beach, California 90803
- 4 Fire Station 17**  
2241 Argonne Avenue  
Long Beach, California 90815
- 5 Rescue Boat 1**  
225 Marina Drive  
Long Beach, California 90803
- 6 Fire Station 22**  
6340 Atherton Avenue  
Long Beach, California 90815

**Project Site**



**Fire Stations Located in the Vicinity of the Project Site**

FIGURE

**IV.K.2-1**

Second+PCH Development  
Source: PCR Services Corporation, 2010.

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building stock (new construction minus demolition), the types of uses proposed, the types of structures proposed, as well as the adequacy of response times and fire flow requirements. The effects of revised circulation patterns, within and around the project site, if any, on fire and emergency medical services have also been considered.

### **b. Thresholds of Significance**

A project may have a significant impact on public services, including fire protection, if it would exceed the significance thresholds included in Section XIV, Public Services, in Appendix G of the CEQA *Guidelines*. As such, the proposed project would result in a significant impact to fire protection if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for fire protection.

### **c. Project Design Features**

Project design features (PDFs) are aspects of the project that must be incorporated as part of the conditions of approval for the proposed project. Some of these project design features may serve to reduce impacts associated with the project. Implementation of the proposed project would require demolition of all existing structures on the site and associated parking, followed by redevelopment of the site with a mix of residential, retail, restaurant, hotel and entertainment uses. Specifically, the proposed project would redevelop the site with five multi-level structures generally ranging in height from two (40 feet) to six stories (75 feet), with one residential tower reaching a maximum of 12 stories (approximately 150 feet). Thus, some of the buildings would exceed the 75-foot threshold set by Chapter 5 of the Fire Code, requiring that the proposed project include safety measures described in Chapter 18.48. Additional project design features relative to fire protection are as follows:

- Chapter 18.23 of the LBMC sets forth requirements for Fire Facilities Impact Fees. The fire facilities impact fee is imposed on residential and nonresidential development for the purpose of assuring that new development pay its fair share of the costs required to support needed fire facilities and related costs necessary to accommodate such development.
- In accordance with Chapter 5 of the Fire Code, a rooftop emergency helipad (for use only in an emergency) would be provided for the high-rise building, in a location approved by the Fire Chief and there would be at least one stairwell providing access to the roof in compliance with Chapter 10 of the Fire Code.
- The proposed project would provide emergency vehicle access to the project site subject to the approval of the LBFD. Emergency access to the site would be provided via three driveways located along PCH and four driveways located along Marina Drive. Please refer to Figure II-15 in Section II, *Project Description*, of this EIR for an illustration of the proposed vehicular access points for the project site.

### **d. Analysis of Project Impacts**

**(1) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental**

**facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for fire protection?**

**(a) Construction-Related Fire Protection**

Construction activities may temporarily increase the existing demand on fire protection and emergency medical services and may cause the occasional exposure of combustible materials, such as wood, plastics, sawdust, coverings and coatings, to heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, chemical reactions in combustible materials and coatings, and lighted cigarettes. However, in compliance with Occupational Safety and Health Administration (OSHA) and Fire and Building Code requirements, construction managers and personnel would be trained in emergency response. Fire suppression equipment specific to construction would be maintained on-site. Additionally, project construction would comply with applicable existing codes and ordinances. Therefore, construction impacts on fire protection and emergency medical services would be less than significant.

Construction activities may involve temporary lane closures for utility construction, crane erection, or the foundation mat slab pour (generally only one lane would be temporarily closed so through access on all roadways serving the project site would be maintained). As such, construction activities could have implications in relation to response times for emergency vehicles to local businesses and/or residences on PCH and Marina Drive, due to travel time delays. Further, construction-related traffic on adjacent streets could potentially affect emergency access to the project site and neighboring uses. Construction activities are also anticipated to require the temporary closure of sidewalks. No-long-term traffic lane closures are anticipated. As discussed in Section IV.L, *Traffic and Circulation*, of this EIR, to ensure impacts to the surrounding street system and emergency response times are kept a minimum throughout construction, a Construction Management Plan will be prepared and implemented for the proposed project. The Construction Management Plan will be developed in coordination with the City and would establish traffic control for any lane closure, detour, or other traffic circulation to ensure emergency access is maintained to the project site and that traffic flow is maintained on street right-of-ways. Depending on the location and duration of the lane closure, the City would require traffic management personnel (flag persons) trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. Additionally, any temporary increase in traffic would not greatly affect emergency vehicles since the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using their sirens to clear a path of travel or driving in the lanes of opposing traffic. Further, construction staging and all temporary facilities (temporary offices, trash bins, toilets, cranes, pumps, etc) would occur on-site. Additionally, the proposed project would be required to comply with Section 14.08.220 of the LBMC, which requires that safe crossings be maintained for vehicles and pedestrian traffic at all street intersections and crosswalks.

With compliance with the regulations of the LBMC, the Construction Management Plan, and implementation of a traffic control plan, emergency access would be maintained and any potential traffic impacts from construction activity would be reduced. As a result, the temporary impacts resulting from project construction would not require new fire protection facilities or physical alterations to existing fire protection facilities to maintain current response times or service ratios. Therefore, project construction would result in a less than significant impact to fire protection services.

### (b) Operational Fire Protection

As discussed in Section IV.J, *Population and Housing*, of this EIR, the proposed project would generate approximately 1,386 residents including residential growth of 943 residents and estimated indirect growth of 443 new residents associated with an increase in job opportunities in the City.<sup>3</sup> The proposed project would also generate approximately 613 employees. As discussed in Section IV.J, *Population, Employment, and Housing*, of this EIR, the current (2010) population in the City is 503,251 residents.<sup>4</sup> Thus, the current residential population of the City is estimated to increase by approximately 0.3 percent ( $[(1,386 \text{ residents} / 503,251 \text{ residents}) \times 100 = 0.28 \text{ percent increase}]$ )

Based on data from the LBFD, there were 61,956 fire department responses in 2009. The LBFD serves the entire City of Long Beach, which had a 2010 population of 503,521 residents. By dividing the number of annual incidents by the population of the city, a generation factor of 0.1230 annual incidents per capita was derived. Based on the generation factor of 0.1230 incidents per capita, the new net residential component of the proposed project could potentially generate approximately 170 incidents per year ( $1,386 \text{ persons} \times 0.1230 \text{ incidents per capita} = 170.47 \text{ new incidents}$ ). The increase would represent an approximately 0.3 percent increase in responses for the LBFD ( $[(170 \text{ service calls} / 61,956 \text{ service calls}) \times 100 = 0.27 \text{ percent increase}]$ ).<sup>5</sup>

It is acknowledged that the majority of service calls would be responded to by either Fire Station Nos. 8 or 14, however, there are four (4) other fire stations, as described above, that are available to respond to service calls in the event that the closest station is not available. In addition, the proposed project would be required to pay fees pursuant to the Fire Facilities Impact Fee as amended in Chapter 18.23 of the LBMC. The payment of the fire facilities fee are intended to ensure that fire facilities and services will satisfy City standards and be available concurrent with new development. The collection of the fees would be used to finance improvements to current facilities, if required. Although the final Fire Facilities Impact Fee would be determined by the Director of Planning and Zoning during final project plan check, under the current Developer Fees established by the City of Long Beach, the proposed project would be required to provide approximately \$186,854.17 in Fire Facilities Impact Fees.<sup>6</sup> Furthermore, the City would also generate annually recurring revenues through applicable City taxes such as sales tax, property tax, utility taxes, from the project's proposed land uses.

Finally, the proposed project would also be required to implement applicable building code requirements pursuant to the CBC as well as the Uniform Fire Code (UFC) as amended in Chapter 18.48 of the LBMC, requiring that fire protection devices, such as sprinklers, alarms per California Fire Code, adequately spaced fire hydrants, and adequately sized access roads, would be installed and utilized. Adherence to the applicable codes would decrease the demand for fire services.

<sup>3</sup> An assumption that 25 percent of employees generated by commercial development would contribute to the residential population due to job relocation.

<sup>4</sup> Southern California Association of Governments. 2008 Regional Transportation Plan, May 8, 2008.

<sup>5</sup> This calculation provides a conservative estimate of additional service calls per year as no service calls are attributed to the existing site uses.

<sup>6</sup> Based on a Fire Facilities Impact Fee of \$378 per multi-family residential unit and \$0.267 per square foot of non-residential commercial development ( $[\$378.00 \times 325 \text{ units}] + [\$0.267 \times 239,716 \text{ square feet}] = \$186,854.17$ ). City of Long Beach Developer Fees, updated October 4, 2010. Available at: <http://www.lbds.info/civica/filebank/blobdownload.asp?BlobID=2506>. Accessed February 9, 2011.

As the project-generated responses would not represent a substantial increase in the number of responses for the fire stations serving the site, the proposed project would not exceed the staff and equipment capabilities of the existing stations or require the expansion of the existing stations or construction of a new fire station. Based on the above, the proposed project would result in a less than significant impact.

### **(c) Emergency Response**

As previously mentioned above, the LBFD has established a suggested response time of five minutes for all emergency incidents. The proposed project would not increase response times by increasing traffic volumes on area roadways to the point where additional significant congestion would occur. For instance, as discussed in Section L, Traffic and Circulation, of this EIR, the proposed project would not result in significant impacts at 23 of the 25 area intersections. At intersections where significant impacts would occur (i.e., Intersections 17 and 17A), these intersections are already operating at a level of service (LOS) of E or lower under the existing conditions on which baseline response times are calculated. It is important to note that Fire Station Nos. 8 and 14 are located approximately 1.1 and 1.4 miles, respectively, from the project site. The average unit response times for these stations are approximately six (6) minutes.<sup>7</sup> As such, the negligible decrease in intersection performance would not increase response times to unacceptable levels as fire crews would need to travel through only a few intersections to respond to an incident at the site. Further, emergency vehicles using sirens can typically maneuver through traffic even during congested conditions by clearing a path of travel or driving in the lanes of opposing traffic. Emergency vehicles may also utilize alternate routes to reduce response times despite the minor increase in traffic during peak periods resulting from the proposed project. As a result, it is anticipated that service calls would be responded to by either of these stations within five (5)-minute response time goal established by the LBFD. In addition, as previously described, there are four additional fire stations within the vicinity of the project site that would be able to serve the project site in the event that Fire Station Nos. 8 and 14 are not available to serve the site. As a result, the LBFD would be able to maintain existing acceptable service response times without requiring a new fire protection facility or expansion to the existing fire protection facility. Thus, impacts regarding emergency response would be less than significant.

### **(d) Emergency Access**

As discussed in detail above, project-related increase in traffic on surrounding roadways would not have a significant impact on fire protection and emergency medical services if the response capabilities of the LBFD. When combined with the proximity of Fire Station Nos. 8 (1.1 mile) and 14 (1.4 miles) and the number of major roadways serving the project site, emergency response to the project site would not fall below acceptable levels (generally 5 minutes). Thus, project-related traffic is not anticipated to impair the LBFD from responding to service requests at the project site. In accordance with LBFD requirements, the Applicant will coordinate with the LBFD to ensure site design provides adequate access for emergency vehicles and equipment to the project site, subject to the approval of the Fire Chief. As previously described, the proposed project would provide adequate emergency access via PCH and Marina Drive. As a result, emergency access would be maintained without requiring a new fire protection facility or expansion to the existing fire protection facility. Thus, impacts regarding emergency access are less than significant.

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<sup>7</sup> Response times are for Advanced Life Support (ALS) calls for service. Response times are rounded to the nearest minute.

### **(e) Fire-Flow**

In order to comply with the requirements of the Lbfd, the proposed project would be required to implement the minimum requirements for fire flow. Prior to the issuance of building permits, the approval of final building design, including all fire prevention and suppression systems, by the Lbfd is required. Approval of the final building design would ensure that development is constructed pursuant to CFC requirements. Adequate fire flow is an integral part of the proposed project's final building design.. Thus, adequate fire flow will be assured through Lbfd review of the final building design. With the payment of fees pursuant to Chapter 18.23 of the Fire Code and the implementation of applicable building code requirements in accordance with the CFC, including fire flow requirements, the Lbfd would be able to maintain acceptable performance ratios and fire flow requirements without requiring a new fire protection facility or expansion to the existing fire protection facility. Thus, impacts to fire flow and utilities would be less than significant.

### **(f) Consistency with Regulatory Environment**

#### ***(i) State of California***

The proposed project would conform to all CBC regulations and ordinances to ensure that fire safety standards are met for buildings within the project area. Fire safety requirements of the CBC would include the installation of fire sprinklers in commercial and residential buildings, standards fire resistant doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures. As such, the proposed project would be consistent with State of California fire standards and impacts would be less than significant in this regard.

#### ***(ii) City of Long Beach Municipal Code***

The proposed project would be reviewed by the City, including the Lbfd, to ensure that the project is in compliance with all applicable fire safety requirements set forth in Chapter 18.48 of the LBMC. Further, the proposed project would be required to pay fees in accordance with Chapter 18.23 (Fire Facilities Impact Fees) of the LBMC. As such, the proposed project would be consistent with the LBMC and impacts would be less than significant in this regard.

## **4. MITIGATION MEASURES**

Compliance with existing regulations would ensure that impacts related to fire protection remain less than significant. As such, no mitigation measures are required.

## **5. CUMULATIVE IMPACTS**

Chapter III of this Draft EIR identifies five related projects that are anticipated to be developed within the vicinity of the project site. Four of the five projects are located in the City of Long Beach. For purposes of this cumulative analysis, to be conservative, it is assumed that all related projects within the City of Long Beach are within the same service area as the proposed project. **Table IV.K.2-2, *Related Projects Served by the Lbfd***, lists those projects within the City of Long Beach included in this analysis (as well as indirect growth associated with people working in Seal Beach but residing in Long Beach). These related projects would cumulatively generate, in conjunction with the proposed project, a net population increase of 1,498 persons and the associated need for additional fire protection services. The proposed project, in conjunction with related projects, could therefore generate 184 additional calls for service per year based on a

Table IV.K.2-2

## Related Projects Served by the Lbfd

Map No. <sup>a</sup>	Location	Land Use	Direct and Indirect Residential Population <sup>b</sup>
1	5638 East 2 <sup>nd</sup> Street	Day Care - 700 s.f	3
2	4401 Pacific Coast Hwy.	Commercial/Retail/ Restaurant – 22,915 s.f.	39
3	4201 E. Willow Street	Retail – 17,500 s.f.	30
4	1720 N. Bellflower Blvd.	YMCA Expansion – 8,500 s.f.	15
5 <sup>c</sup>	1 <sup>st</sup> Street and Marina Drive (Seal Beach)	Hotel/SFR – 75 Rooms and 55 units	25
<b>Related Projects Total</b>			<b>112</b>
<b>Proposed Project Total</b>			<b>1,386</b>
<b>Cumulative Total with Project</b>			<b>1,498</b>

<sup>a</sup> Corresponds with Map Nos. on Figure III-1 in Chapter III of this Draft EIR.

<sup>b</sup> Population total correspond with Table IV.J-5, Cumulative Population and Employment, in Section IV.J, Population and Housing, in this EIR.

Source: PCR Services Corporation, 2011.

generation factor of 0.1230 annual incidents per capita (1,498 persons x 0.1230 incidents per capita = 184.25 new incidents). Thus, the projected total number of service calls would increase from 61,956 to 62,140. This represents a 0.3-percent cumulative increase in annual service calls ([184 new service calls / 61,956 existing service calls] x 100 = 0.29 percent increase). It is important to note that consistent with the above analysis and common practice, this statistic is based on residential development, which generates the majority of calls for fire protection service. Since none of the related projects located within the City of Long Beach contain a residential component, the statistic is conservative in that the non-residential components of the related projects would also create additional demands for fire protection services. However, the Lbfd does not maintain statistics on the service area ratios for non-residential development.

Although a cumulative increase in Lbfd fire protection services would occur, cumulative project impacts on fire protection and emergency medical services would be reduced through regulatory compliance, similar to the proposed project. All related projects would comply with Chapter 18.23 of the LBMC. Additionally, “second call” stations would help support Fire Station No. 8 in the event an emergency were to occur. It should also be noted that the proposed project, as well as related projects, would generate revenue to the City’s general fund in the form of net new property tax, direct (i.e., from on-site commercial uses) and indirect (i.e., from household spending) sales tax, utility user’s tax, gross receipts tax, real estate transfer tax on residential initial sales and annual resales, and other miscellaneous household-related taxes (e.g., parking fines). This revenue could be used to fund Lbfd expenditures as necessary to offset cumulative impacts to Lbfd fire protection facilities and services. Therefore, cumulative impacts on fire protection and emergency medical services would be less than significant, and the proposed project’s contribution to such impacts would not be cumulatively considerable.

## **6. LEVEL OF SIGNIFICANCE AFTER MITIGATION**

In compliance with the LBMC, CBC, and all other applicable ordinances and requirements, the proposed project would not result in any significant impacts on fire protection and emergency medical services. Thus, no significant unavoidable impacts with regard to fire protection services would occur.

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