

IV. ENVIRONMENTAL IMPACT ANALYSIS

I. PUBLIC SERVICES

1. Fire Protection

EXISTING CONDITIONS

EXISTING FACILITIES

Within the City of Los Angeles, the Los Angeles Fire Department (LAFD) provides fire prevention and suppression services and emergency medical services. The LAFD operates more than 95 fire stations grouped into 16 battalions and three divisions. Equipment includes engines, trucks, paramedic engines, crash units, hazardous materials response and decontamination units, foam carriers, rescue ambulances, helicopters, and boats. The project site is located in the district of Fire Station No. 107 (a Single Engine Company), located approximately 1.5 miles southeast of the project site at 20225 Devonshire Street. In addition, the project site is also located within an initial response area of Fire Station No. 96 (a Task Force and Engine Company), located approximately 2.5 miles southeast of the project site at 21800 Marilla Street. Resources available at Fire Stations 107 and 96 are summarized in **Table IV.I-1**. In addition, the LAFD has a mutual aid agreement with the Los Angeles County Fire Department, which would aid in response to a fire in the service area if necessary. The location of Fire Station Nos. 107 and 96, as well as their likely routes to the project site, are illustrated in **Figure V.I-1, Fire and Police Stations**.

Fire Station	Locations	Distance From Site	Resources
No. 107	20225 Devonshire Street	1.6 Miles	Staff: 6 Engine Company No. 107 Rescue Company No. 107 Reserve Truck No. 507
No. 96	21800 Marilla Street	2.5 Miles	Staff: 10 Truck Company No. 96 Engine Company No. 96 Engine Company No. 296 Rescue Company No. 896

SOURCE: Los Angeles Fire Department, www.lafd.org/vehicles.htm, last accessed October 20, 2003.

The project site is located within a Very High Fire Hazard Severity Zone, as established by the City of Los Angeles in 1999.¹ All projects located within a Very High Fire Hazard Severity Zone must comply with the requirements set forth for the Mountain Fire District, as outlined in Section

¹ The Very High Fire Hazard Severity Zone replaced the Mountain Fire District and Buffer Zone as identified in the Safety Element of the Los Angeles City General Plan. The boundary of the District and the Buffer Zone remains the same.

**Figure IV.I-1
Fire and Police Stations**

57.21.07 of the Los Angeles Municipal Code. These requirements include the use and placement of construction materials, greenbelt requirements, the use of fire-resistant plants and materials, and the regular clearing of brush.

City of Los Angeles Fire Protection Standards

Fire flow is defined as the quantity of water available or needed for fire protection in a given area and is normally measured in gallons per minute (gpm) and duration of flow. Fire flow requirements are closely related to land use – the type of development, potential life hazard, occupancy and the overall degree of the hazard. Requirements may vary from 2,000 GPM in low-density residential areas to 12,000 GPM in high-density commercial or industrial areas. High-density areas such as high occupancy mixed use districts where simultaneous fires might occur may require fire flows that exceed this standard. The Los Angeles Fire Code also requires that a minimum residual water pressure of 20 pounds per square inch (psi) remain in the water system while fire suppression activities are underway.

The Fire Code establishes maximum response distances from the fire service facility to the project site. These response distances are based on land use and fire flow requirements between specific sites and engine and truck companies.

The adequacy of fire protection services is determined based on several factors including: 1) the availability of required fire-flow; 2) the response distance from fire service facilities; and 3) the anticipated frequency and nature of emergency calls in a given area as determined by the LAFD. Staff and equipment capabilities of any of the LAFD stations serving a property and compliance with applicable LAFD code and ordinance requirements for construction, fire flow, water mains, fire hydrants, and access are also considered. Ultimately, the adequacy of fire protection services for a particular property may be based upon the judgment and past experience of the LAFD. It is also important to recognize that the provision and strategic placement of on-site suppression systems within a project can influence overall needs for fire protection services.

Existing Water System

New infrastructure serving the site will be located in the future extension of Rinaldi Street, which is expected to be completed by the summer of 2005. Proposed future DWP facilities in Rinaldi would consist of the construction of a new 12-inch main line. This mainline will be fed from a connection to the existing 48-inch Granada Trunk line located just north easterly of the project site in Rinaldi Street. The system would operate under a maximum static pressure of 186 psi and would be located in the 1445 Service Zone.

The water main improvements in Rinaldi Street are currently in the process of being designed and coordination with DWP is ongoing at this time to insure adequate water demands can be provided for the projected domestic and fire flow needs of the school. Because the Rinaldi Street water facilities will be supplied from a direct connection to the Granada Trunk line, the available capacity is treated as a nearly infinite source; however the coordination process will insure that the proposed mains located in Rinaldi Street will be adequately sized in order to accommodate planned domestic and fire flow demands while maintaining required residual pressures.

Currently, water lines are located in Lurline Avenue and the terminus of Rinaldi Street. Specifically, a 6-inch main is located in Rinaldi Street (in a separate service zone) which services the residential properties located west of the school site; an 8-inch main is located in Lurline Avenue to the east which services the current site and other residential properties. One existing hydrant is located at the terminus of Lurline Avenue which will be removed and relocated as part of the Rinaldi Street improvements. Additionally, the 48-inch Granada Trunk Line runs northerly and easterly of the school site, and the 52-inch De Soto Trunk Line runs westerly of the school site. Several active and inactive water lines are also located within the site extending from existing MWD or DWP facilities and are addressed in more detail in Section III.A of this Draft EIR, Overview of Environmental Setting

Five new public fire hydrants will be installed as part of the DWP facilities located in Rinaldi Street fronting or adjacent to the school site. The public hydrants will be spaced approximately 300 feet apart with two hydrants immediately fronting the school site on the northerly side of Rinaldi, two hydrants immediately fronting the school site on the southerly side of Rinaldi, and one hydrant located within 150 feet easterly of the school site on the southerly side of Rinaldi. These hydrants will be capable of delivering a minimum of 1,500 gallons per minute each with a minimum residual pressure of 20 psi.

ENVIRONMENTAL IMPACTS

THRESHOLD OF SIGNIFICANCE

The LAFD evaluates the demand for fire prevention and protection services on a project-by-project basis to determine if a proposed project would require additional equipment, personnel, or facilities. Beyond the standards included in the Los Angeles Fire Code, consideration is given to project size, proposed uses, required fire-flow, response time and distance for engine and truck companies, fire hydrant sizing and placement standards, access, and potential to use or store hazardous materials. Based on the City of Los Angeles' "L.A. CEQA Thresholds Guide," the determination of significance shall be made on a cases-by-case basis, considering the following:

- Whether the project would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

PROJECT IMPACTS

Construction

During any construction period, activities involving wood framing and the subsequent installation of electrical and mechanical systems pose a potential threat of fire. Compliance with City of Los Angeles building codes and requisite site inspections would render any potential fire hazard as very unlikely. Additionally, the project is required to comply with LAFD and Department of Building and Safety regulations for water availability and accessibility to fire fighting equipment to minimize any threat of a fire that could occur during project construction. Compliance with these requirements would limit any potential fire hazard impacts to a less than significant level. Because the proposed project is located within a Very High Fire Hazard Severity Zone, construction activities must comply with the requirements set forth for the Mountain Fire District, as outlined in Section 57.21.07 of the Los Angeles Municipal Code. These requirements include measures for on-site storage of construction materials, the use of fire-resistant plants and materials, and the regular clearing of brush.

A high demand for fire protection services during project construction is not anticipated. No temporary closure of traffic lanes on adjacent streets is anticipated to occur during project construction. The site is large enough to allow for staging of construction equipment on-site, and currently the terminus to Rinaldi Street is the only public street that borders the property and has a 100- right-of-way adjacent to the site. Therefore, access for fire units responding to emergencies would not be impeded. Implementation of standard construction practices as appropriate, such as an approved haul route, construction staging, flagmen, hours of operation, warning signs, etc., as required by the City of Los Angeles, would further reduce potential impacts. Therefore, no significant impacts to fire protection services are expected during project construction.

Operation

Development of the proposed project would intensify the limited residential use of the site with the addition of a 550 student high-school and associated facilities. Similarly, the project would bring greater fire controls and improved access to the undeveloped parts of the site, which consists of an open field, some brush, and numerous mature ornamental trees. The proposed project would provide new fire protection facilities on the site through the provision of new fire hydrants and compliance with all applicable City of Los Angeles Fire Department Code and safety requirements.

Fire Flows

Based on their initial review in response to the Notice of Preparation, the LAFD has established a required fire flow for the project of 6,000 gpm from 4 fire hydrants flowing simultaneously.¹ The LAFD will further review and approve the project site plan for fire hydrant sizing and placement for the proposed project during the building permit and site review processes. Fire flow would be provided at the project site via future water lines and public hydrants contained within the Rinaldi Street extension. The five new hydrants located in Rinaldi Street will be capable of providing the required fire flows to serve the project.

Additionally, a private fire loop is proposed for the school site which will be fed from two 8-inch fire meters connected to the Rinaldi Street facilities. The private fire system would be capable of providing a total of 5,000 gallons per minute at a minimum residual water pressure of 20 psi in order to service a private fire system consisting of fire sprinklered buildings and two or three private fire hydrants located within the school site.

Response Times and Impacts to Existing Facilities

As shown in **Table V.I-1**, the closest fire station (Station No. 107) is located 1.6 miles southeast of the project site. Based on their initial review in response to the Notice of Preparation, LAFD has stated that in order to mitigate any inadequacy of fire protection in travel distance, sprinkler systems will be required throughout all structures proposed in accordance with the Los Angeles Municipal Code, Section 57.09.07. Given that sprinkler systems are included in project design and construction, and the two nearest fire stations provide equipment and personnel within a 2.5 mile radius to the project, the proposed project is not anticipated to impact existing fire service and facilities necessitating the addition of a new fire station or an increase in equipment or

¹ City of Los Angeles Fire Department, Alfred B. Hernandez, Assistant Fire Marshall, Bureau of Fire Prevention and Public Safety, January 27, 2004.

personnel. Therefore, no significant impacts associated with response times and existing fire protections facilities would occur as a result of the project.

Safety Standards

The proposed project would comply with standard design requirements in accordance with the Uniform Building Code, which include fire sprinklers and fire alarm devices. Specifically, the project would be constructed in compliance with City of Los Angeles Municipal Code Section 57.09.07 requiring sprinkler systems be built within all structures. Additionally, under §32001 of the California Education Code, the authorities of every private school must equip every school building having an occupant capacity of 50 or more students or containing more than one classroom with a dependable and operative fire warning system. The project would also be developed in accordance with applicable fire safety standards included in the Los Angeles City Fire Code, as well as requirements specific to development within the Very High Fire Hazard Severity Zone, as outlined in Section 57.21.07 of the Los Angeles Municipal Code. Such requirements regard the use and placement of construction materials, greenbelt requirements, the use of fire resistant plants and materials and the clearing of brush. All use and storage of flammable materials on-site would be stored and maintained in rigorous compliance with CalOSHA and other mandated health and safety standards. Consultation and planning with the LAFD would also be required during site preparation and planning and specific fire protection measures must be provided within the project before issuance of any building permits or Certificates of Occupancy by the Department of Building and Safety. Thus, impacts related to fire protection services would be less than significant

MITIGATION MEASURES

As described in the Environmental Impact discussion, the project is required to comply with fire safety requirements as established by the LAFD during site plan review and prior to building permit approval and issuance of a Certificate of Occupancy, as called required for projects located in a Very High Fire Hazard Severity Zone and as also required by §32001 of the California Education Code. Additionally, the following requirements have been identified by the LAFD for incorporation into the project as follows:²

- IV.I.1-1 The Applicant shall submit a plot plan to the LAFD indicating the number and location of fire hydrants. Such fire hydrants shall be installed to the specifications and requirements of the LAFD.
- IV.I.1-2 In order to mitigate the inadequacy of fire protection in travel distance, sprinkler systems shall be installed in all proposed structures, in accordance with the Los Angeles Municipal Code, Section 57.09.07.
- IV.I.1-3 A fire lane width of no less than 20 feet shall be provided. When a fire lane must accommodate the operation of LAFD aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28 feet in width.
- IV.I.1-4 No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.
- IV.I.1-5 No building or portion of a building shall be constructed more than 300 feet from an

² IBID.

approved fire hydrant. Distance shall be computed along path of travel.

IV.I.1-6 The proposed project shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles.

CUMULATIVE IMPACTS

A total of 30 known and foreseeable related projects have been identified (see Related Projects discussion in Section IV., Environmental Setting, of this Draft EIR) in the project vicinity. The development of the proposed project and known related projects in the immediate area may result in the need for increased staffing of existing facilities, additional fire protection facilities or the relocation of present facilities. In that event, a significant cumulative impact could occur to areawide facilities. However, as with the proposed project, each related project will be subject to LAFD review to determine specific on-site needs and to comply with fire and life safety requirements identified by the LAFD. As with the proposed project, it is the LAFD's intent to reduce the significant impacts of individual projects with site specific mitigation and conditions. Assuming that individual projects meet specific requirements identified by the LAFD, and that LAFD staffing and equipment increase commensurate with additional demand from new development in the area, no significant cumulative impacts will result. However, if staffing and equipment cannot keep pace with increased demand resulting from the 30 related projects, a significant cumulative impact would result.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

As with any new project that involves an intensification of existing land uses, the proposed project would generate additional demand for local fire and emergency medical services. However, this demand would be offset by incorporating all City and institutional fire safety requirements, providing adequate access, adding new hydrants to the site and meeting all fire flow requirements. Consequently, impacts to fire protection would be less than significant for both construction activities and operation of the proposed secondary school. However, in the event staffing and equipment cannot keep pace with increased demand resulting from the 30 related projects, a significant cumulative impact would result.