4.0 ENVIRONMENTAL IMPACTS

This section examines the potential adverse environmental impacts that may result from the implementation of the proposed project. Discussion is focused on the identification of changes that may be considered to be environmentally significant (a substantial, or potentially substantial, adverse change in the environment).

Analysis of each environmental issue is organized within the following five subsections:

ENVIRONMENTAL SETTING - A description of existing conditions, prior to implementation of the 2009 Facilities Master Plan Update (proposed project), and a discussion of the policy and technical background necessary for analysis of potential impacts.

THRESHOLDS OF SIGNIFICANCE - The criteria by which the project components are measured to determine if the proposed project would cause a substantial or potentially substantial adverse change in the existing environmental conditions.

IMPACTS - An analysis of the beneficial and adverse effects of the proposed project, including, where appropriate, assessments of the significance of potential adverse impacts relative to established criteria and thresholds (relative to existing conditions per CEQA).

MITIGATION MEASURES - Wherever significant adverse impacts relative to existing conditions are identified in the impacts subsection, appropriate and reasonable measures are recommended to avoid or minimize impacts to the extent feasible.

LEVEL OF IMPACT AFTER MITIGATION - A discussion of whether an unavoidable significant impact would be reduced to a less-than-significant level or to no impact after mitigation under CEQA.

4.1 AESTHETICS AND LIGHTING

This section presents the existing visual character, light and glare and shade and shadows on and in the vicinity of the project site, followed by an analysis of the proposed project and assessment of potential impacts.

ENVIRONMENTAL SETTING

Visual Character

As required under CEQA, the aesthetic analysis must disclose the potential impacts the proposed project would have on the existing visual character of the project site and its surroundings. The concept of visual character, however, is not explicitly defined in the *CEQA Guidelines*. Visual character functions as a point of reference in assessing whether a project's features would appear to be compatible with the established built environment. In general, the evaluation of visual character is determined by the degree of contrast that could potentially result between the proposed project and the existing built environment. Contrast is assessed by considering the consistency of the following features of a proposed project with those of the existing built environment:

- Scale: includes the general intensity of development comprised of the height and setback of buildings
- Massing: includes the volume and arrangement of buildings
- Open space: includes setback of buildings and amount of pedestrian spaces

The 82-acre project site is located in the City of Monterey Park, five miles east of Downtown Los Angeles. The project site is surrounded to the north, south and west by single- and multi-family residences and low-rise commercial development to the east. The project site gently slopes in a north-south and west-east direction. The existing campus buildings are generally located in the eastern portion of the project site and are surrounded by landscaped pedestrian pathways. Indoor and outdoor athletic and recreational facilities are located on the western half of the project site. The main parking structure and surface lots are located at the northwest and northeast corners of the project site and along the southern central perimeter of the project site.

The contrast in scale, massing, and open space characteristics of the project site is distinct in comparison to the adjacent lots to the north, south, east, and west due to the institutional nature of the campus setting which exhibits medium- to large-scale buildings with minimal setbacks and large minimally developed portions of land occupied by surface parking or athletic fields. In contrast, the area to the north, south and west is characterized by small- and medium-scale residential structures with landscaped front yards as setbacks. The areas to the east are characterized by medium-scale, low-rise commercial strip mall-type buildings with minimal landscaping and surface parking.

Buildings. The project site is occupied by approximately 25 principal buildings, a majority of which were constructed between 1950 and 1976 (approximately 80 percent); the remaining buildings were constructed within the last 15 years. Generally, the buildings on campus are one- to four-stories in height and range in size from 4,500 to 100,000 gross square feet (gsf). The older buildings on campus are symmetrical rectangular forms with flat roofs, minimal window openings, and light beige and green concrete or stucco facades. The more recently constructed buildings are asymmetrical rectangular and curved forms with sloped roofs, larger window openings, and concrete and brick facades (**Figure 4.1-1**).

Women's Gym. Light beige and green concrete exterior, symmetrical rectangular forms with a flat roof and minimal window openings.

Technology Center. Light beige concrete, brick and glass exterior, flat and curved facade with a flat roof and symmetrically spaced window openings.

SOURCE: TAHA, 2009

In addition to the permanent structures on campus, there are number of temporary bungalows located throughout the campus.

Light and Glare

Ambient exterior lighting at ELAC consists of the illumination of some parking areas, security lighting for pedestrians, as well as lighting at the stadium in the northwestern portion of the campus. The highest illumination on the campus is directed in the stadium where there is often nighttime training or events. Existing lighting conditions in the project vicinity consist of vehicular street lights to illuminate roadways for drivers, and commercial lighting along the major arterial streets surrounding the project area.

Glare or perceived brightness is characterized as a diffused light, which is generated or reflected from a surface, often causing a nuisance to the viewer. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior facades largely or entirely comprised of highly reflective glass or mirror-like materials. Nighttime glare is primarily associated with a viewer being within the line-of-sight of bright point source lighting that contrasts with existing low ambient light conditions. The majority of existing buildings are comprised of a mixture of reflective and non-reflective materials which include concrete, stucco and glass. During the daytime, parked vehicles can produce a large source of glare from sunlight being reflected off windshields and other surfaces. This is noticeable primarily in the northeast and southwest parking lots.

Shade and Shadow

Shadows are cast in a clockwise direction from west/northwest to east/northeast from approximately 7:00 a.m. to 4:00 p.m. or later depending on the time of the year. Generally, the shortest shadows are cast during the Summer Solstice (June 21) and grow increasingly longer until the Winter Solstice (December 20). During the Winter Solstice, the sun appears lower in the sky and shadows are at their maximum coverage lengths. Shadow impacts are considered to be significant when they cover shadow-sensitive uses for a substantial amount of time (i.e., three hours or more). Shadow-sensitive uses generally include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors/panels.

Shadow-sensitive uses within the vicinity of the project site include usable outdoor spaces associated with the residential uses located to the north, south and west of the project site and campus outdoor space located throughout the project site. The tallest building on the ELAC campus is the Technology Center, which reaches approximately 70 to 80 feet in height and is located near the center of campus, north of the E6 Bungalows. The Technology Center does not cast shadows outside of the campus boundaries.

PREVIOUSLY DISCLOSED IMPACTS

The Final EIR for the 1998 Facilities Master Plan concluded that no unavoidable significant impacts would occur with regard to aesthetics or lighting and that Mitigation Measures L1 through L3 of the Final EIR would reduce the potential impact of spillover lighting associated with tennis courts, athletic fields, and stadium lighting on adjacent residential properties to less-than-significant levels. The Final EIR also found that the project site does not contain any scenic resources or distinguishing views or vistas.

The Addendum for the 2004 Facilities Master Plan Update (2004 FMPU) concluded that no unavoidable significant impacts would occur with regard to aesthetics or lighting and indicated that the 2004 FMPU

would not add any new structures that would cast additional lighting onto adjacent residential communities. The Addendum further stated that the mitigation measures applicable to lighting included in the Final EIR would continue to be applicable to the 2004 FMPU and no new mitigation measures were required.

THRESHOLDS OF SIGNIFICANCE

The proposed project would have a significant impact related to aesthetics and lighting if the project would:

- Substantially degrade the existing visual character or quality of the site and its surroundings;
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area;
- Intensity of the illuminated sign were to exceed 400 foot-lamberts (fl) within 100 feet of a residential zone; and/or[1]
- Cast new shadows on shadow-sensitive uses for a substantial period of time (assumed to be three hours or more).

IMPACTS

Visual Character

The proposed project includes the construction of new facilities, the modernization of existing buildings, the addition of tennis courts, a full-sized field (for football or soccer), a women's athletic field and campus marquees. **Table 4.1-1** describes the visual character of the proposed project.

The proposed buildings will utilize building materials that are similar to existing structures on campus, including concrete, brick and glass. **Figure 4.1-2** illustrates the visual character of the proposed new Math and Science Complex. The tallest and largest building included in the proposed project is the Student Success and Retention Center which will be approximately 74 feet in height and contain approximately 130,000 gsf of building space. A building of this size is consistent with the scale and massing of the existing buildings on campus. The proposed athletic fields would add open space where parking was previously provided, thereby improving the quality of the existing open space. Therefore, the proposed project would result in less-than-significant impacts related to visual character.

Light and Glare

Athletic Field. The surrounding area adjacent to the campus was surveyed to identify light-sensitive uses. Light-sensitive uses include residential, some commercial and institutional uses and, in some situations, natural areas. Light from the poled lights on the proposed Football/Soccer Field and Tennis Courts could spillover onto adjacent residential and institutional properties located on the south side of Avenida Cesar Chavez. Athletic field and tennis court lighting typically generates an average of 20 and 30 footcandles (fc) of illumination, respectively.[2] **Figure 4.1-3** illustrates the amount of spillover light that would be cast onto adjacent residential and institutional buildings from the proposed Football/Soccer Field and Tennis Courts. The spillover light from the proposed Football/Soccer Field and Tennis Courts is anticipated to be less than 2 fc. Two fc has been identified as an acceptable level for spillover lighting

[1]The LACCD has not established a threshold to evaluate the intensity of illuminated signs. The threshold used to evaluate the light intensity of the illuminated signs is based on Monterey Park Municipal Code Section 21.50.070, Sign Regulations, General Requirements.

[2]The Illuminating Engineering Society of North America RP-6-01, *Recommended Practice for Sports and Recreational Area Lighting,* August 5, 2001.

for local jurisdictions. Therefore, the proposed Football/Soccer Field and Tennis Courts would result in less-than-significant impacts related to light and glare.

TABLE 4.1-1: VISUAL CHARACTER OF PROPOSED PROJECT

Building	Approx. Height (feet)	Approx. Size (gsf)	Description and Location
Vocational/General Classroom Building, existing G9	50	60,000	3-level, LEED-certified building proposed along the northern perimeter of the project site at the location the existing Nursing Building (G9)
Student Success and Retention Center, existing E3 and E5	74	130,000	5-level, LEED-certified building proposed north of the Student Services center located on the southern central perimeter of the project site where the existing E3 and E5 buildings are located
Central Plant	21	3,520	1-2 level building proposed east of Weingart Stadium which will house the heating, cooling and electricity generating equipment for the campus
Campus Marquees Avenida Cesar Chavez Floral Drive & Avalanche Way Floral Drive & Collegian Avenue	 30/a/ 22/a/ 23/a/	 N/A	 Stucco base, brick tower, double sided display Painted aluminum cabinet, double sided display Pole mounted, single sided display
Math and Science Complex, existing G5, G6, H5, H6, H7	51	118,334	3-level building proposed north of Ingalls Auditorium where the existing G5, G6, H5, H6 and H7 are located
Campus Student Center/Bookstore Complex, existing F5 (*formerly referred to as Student Services*)	50	55,000	3-level, LEED-certified building proposed north of the Bailey Library where the existing F5 building is located
Parking Structure 4	47	430,570	4-level, 1,574-car parking structure
Classrooms G8 and H8 Modernization	11	14,156 11,480	Bring the existing building up to current building code and life safety standards, upgrades would include architectural finishes, electrical, plumbing, and security and fire alarm upgrades

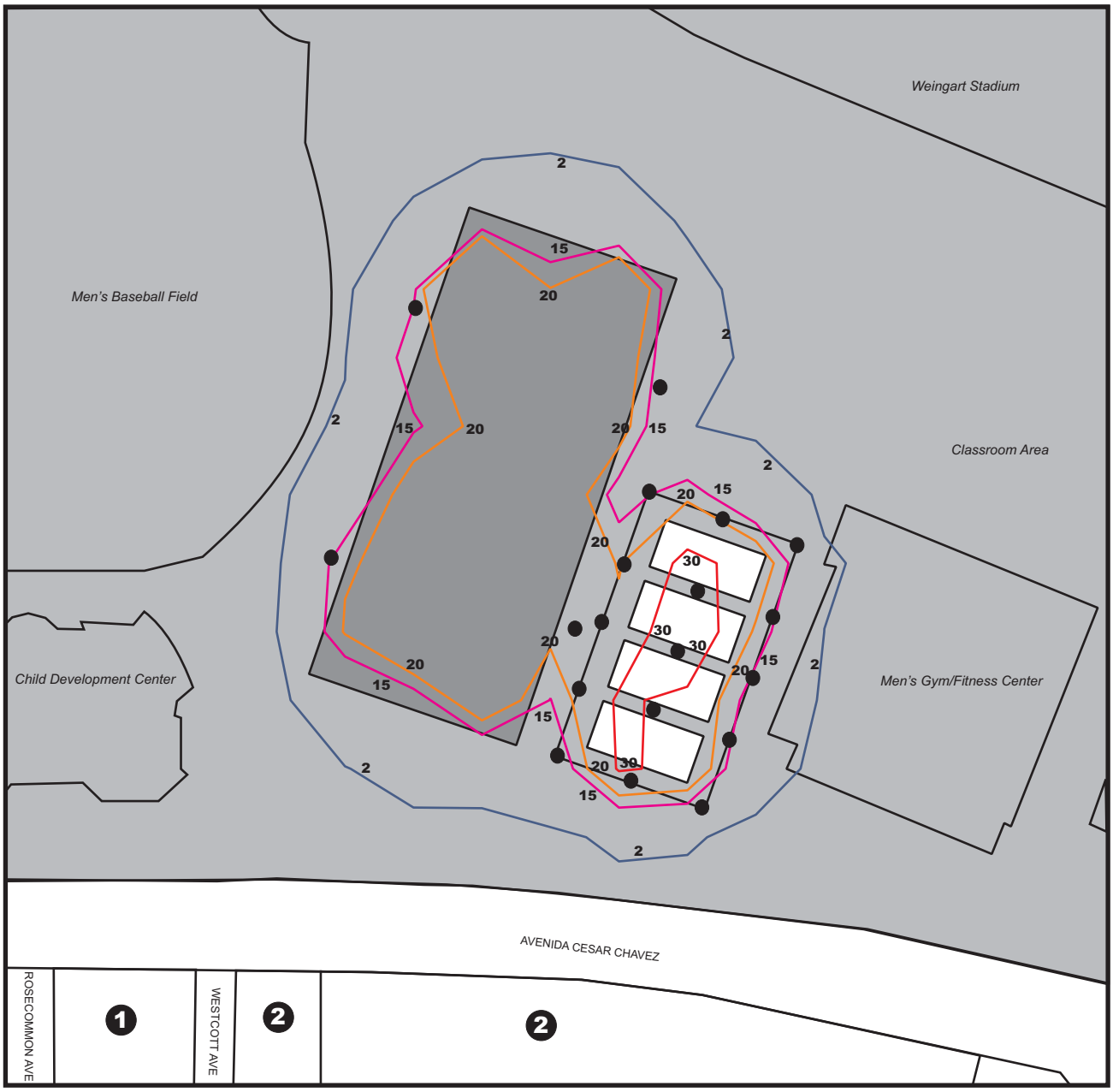
/a/ Represents maximum height of sign body, actual display board size is 101"H x 151"L x 10"D.
SOURCE: East Los Angeles College, *2009 East Los Angeles College Facilities Master Plan Update*.

Light from the poled lights on the proposed Women's Athletic Field could spillover onto adjacent residential properties located on the north side of Floral Drive. **Figure 4.1-4** illustrates the amount of spillover light that would be cast onto adjacent residential buildings from the proposed Women's Athletic Field. The spillover light from the proposed Women's Athletic Field is anticipated to be less than 2 fc. Therefore, the proposed Women's Athletic Field would result in less-than-significant impacts related to light and glare.

SOURCE: 2009 East Los Angeles College Facilities Master Plan Update

FIGURE 4.1-2

VISUAL CHARACTER OF PROPOSED
MATH AND SCIENCE COMPLEX



LEGEND:

Project Site | Football/Soccer Field | Tennis Courts

● Light Pole

2 footcandles | 15 footcandles | 20 footcandles | 30 footcandles

(#) Surrounding Land Uses

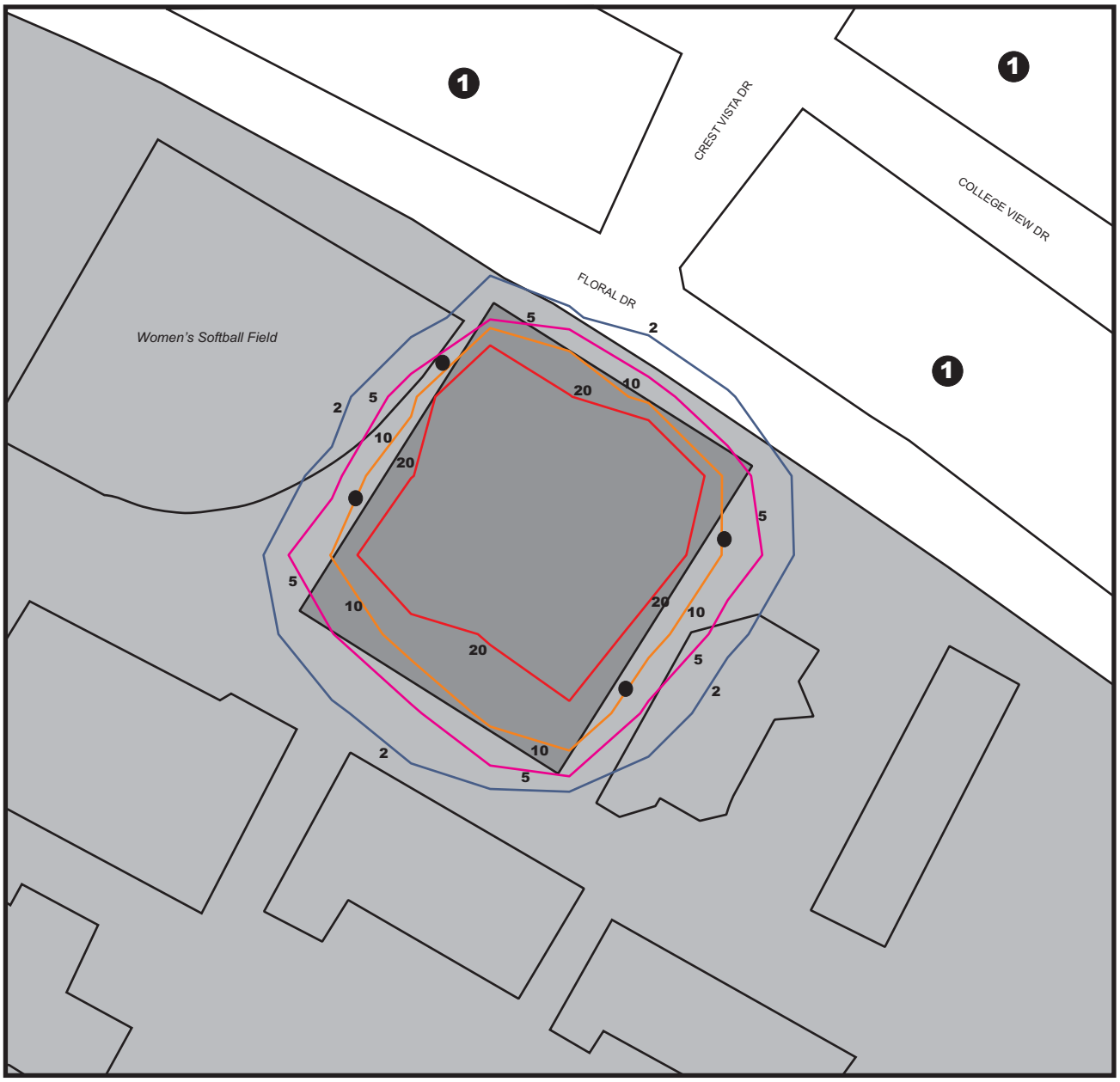
1. Residential

2. Institutional

SOURCE: TAHA, 2010

FIGURE 4.1-3

FOOTBALL/SOCCER FIELD AND TENNIS COURT LIGHTING CONTOURS



LEGEND:

Project Site | Women's Athletic Field

● Light Pole

2 footcandles | 5 footcandles | 10 footcandles | 20 footcandles

Surrounding Land Uses

1. Residential

SOURCE: TAHA, 2010

N

East Los Angeles College Facilities Master Plan Update
Supplemental Environmental Impact Report

taha 2009-037

LOS ANGELES COMMUNITY COLLEGE DISTRICT

FIGURE 4.1-4

WOMEN'S ATHLETIC FIELD
LIGHTING CONTOURS

Buildings. The proposed project would include security lighting for all buildings and facilities. Additional ornamental lighting may also be installed to accent buildings. Lighting fixtures would typically be mounted on low-scale poles or on the facades of buildings. It is expected that this lighting (which typically is at the level of 1 to 2 footcandles) would not spillover outside the campus boundaries nor would it create glare that would adversely affect adjacent residences. Therefore, the proposed project would result in less-than-significant impacts related to lighting.

Parking Structure. Exterior security lighting for the proposed Parking Structure 4, as well as light from vehicle headlights in the parking structure, could spillover and/or result in glare cast onto the adjacent residential buildings to the north of the project site. While security lighting typically generates less than 5 fc of illumination on the area illuminated, when combined with light from vehicle headlights, this would potentially result in a significant impact related to spillover light and glare.

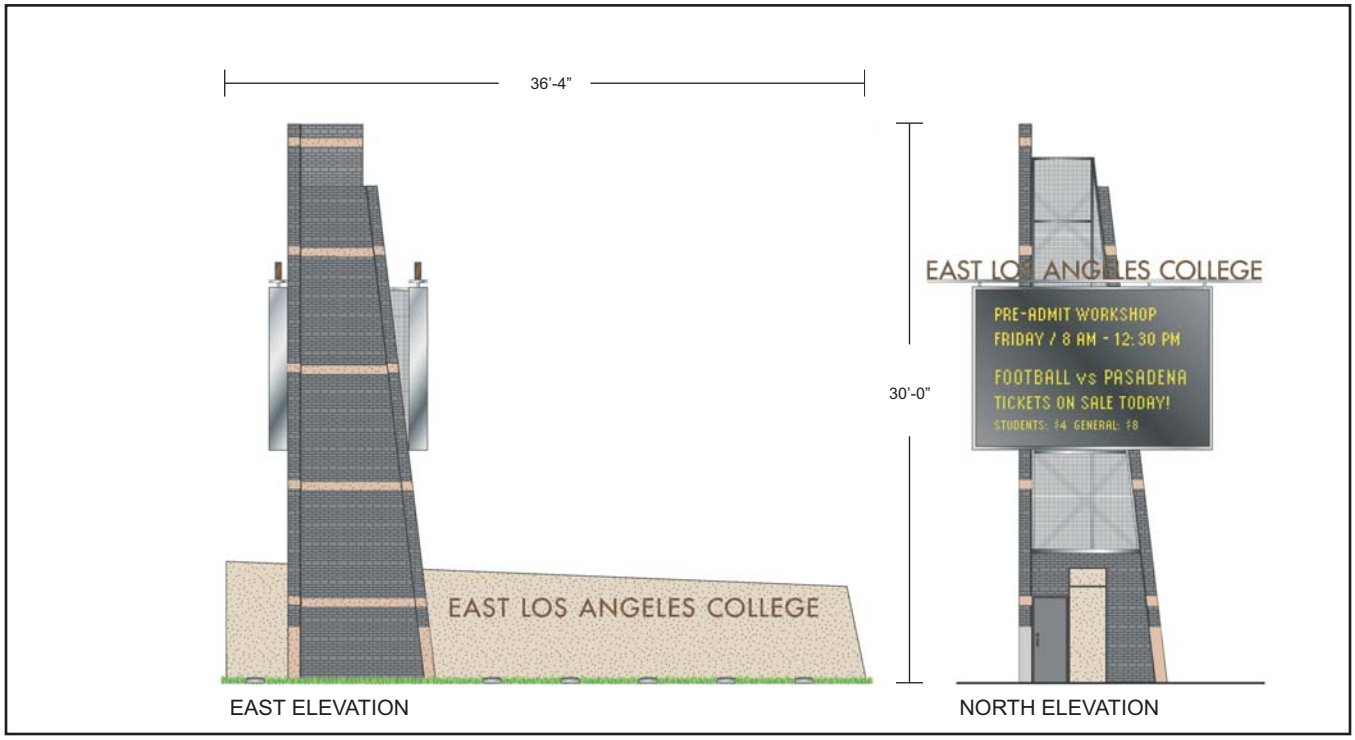
Campus Marquees. The proposed project includes three campus marquees which would utilize light-emitting diode (LED) display boards (**Figure 4.1-5**). Light from the LED display boards may spillover onto adjacent residential properties located to the north and south of the project area. Light intensity can be measured as a form of luminance or illuminance. Luminance measures the amount of light leaving a surface in a particular direction, and can be thought of as measured brightness of a surface as seen by the eye. Illuminance measures the amount of light coming from a light fixture that lands on a surface. The proposed LED display boards could generate as much as 1,459 fl of luminance. This level would exceed the 400 fl threshold established by the City of Monterey Park for illuminated signs within 100 feet of residential properties[3]. The manufacturer has indicated that the proposed sign can be dimmed to a maximum of 70 percent (or 1,021 fl) before the sign becomes illegible. This level would still exceed the 400 fl threshold and would, therefore, result in a significant impact related to light from the proposed Campus Marquees.

Shade and Shadows

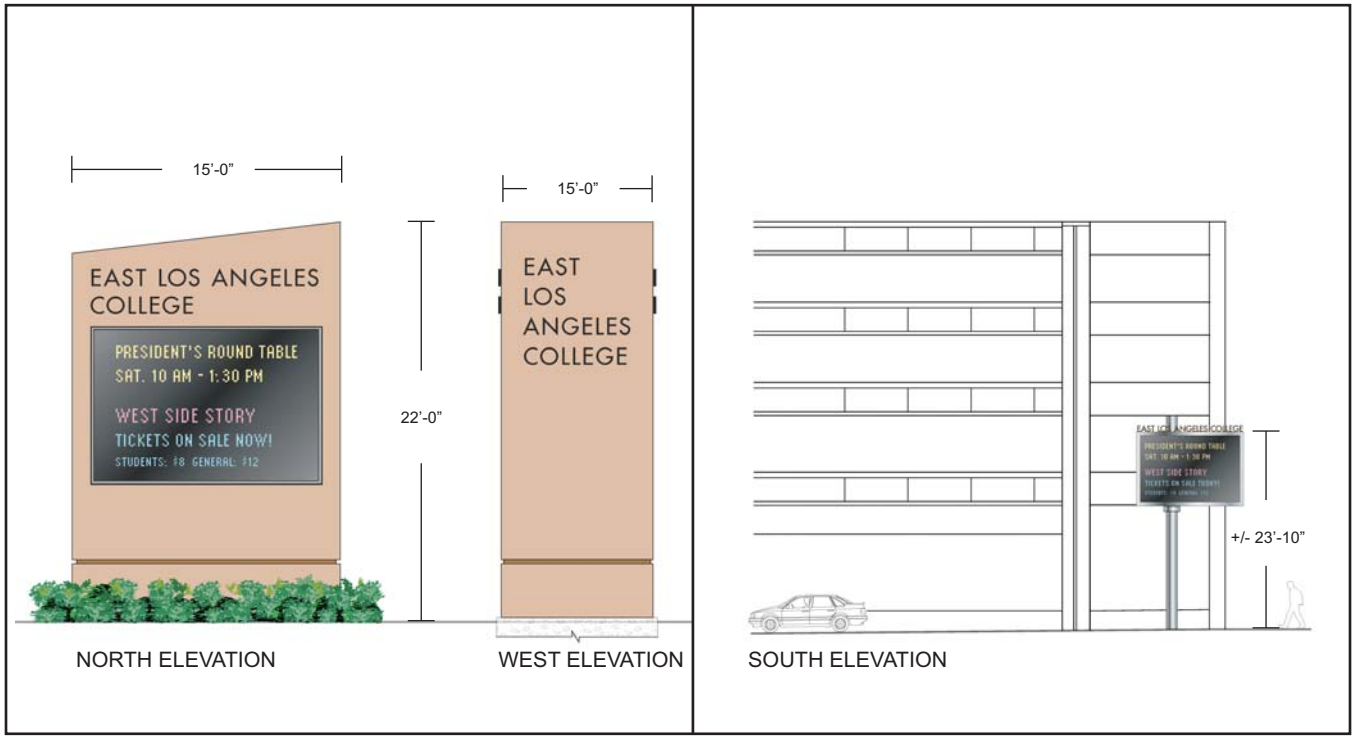
The proposed project includes the construction of new buildings which have the potential to cast new shadows on adjacent sensitive uses. The areas that would be most susceptible to shadows generated by the proposed project include the rear yards of the single-family residences located north of the project site, the proposed Women's Athletic Field located to the west of the proposed Vocational/General Classrooms Building and the campus open space located north of the proposed Student Success and Retention Center.

To determine whether a shadow would be cast onto shade-sensitive uses, heights of the proposed building, the distance of the proposed building from sensitive uses, the time of day, and the time of year were taken into consideration. For the purpose of the shadow analysis, the buildings have been grouped into two groups, Building Group A includes the Parking Structure 4 and the Vocational/General Classrooms Building, and Building Group B includes the Central Plant, Student Success and Retention Center and Campus Student Center/Bookstore Complex. **Figures 4.1-6** through **4.1-11** illustrate the shadows cast from the proposed buildings.

[3]Monterey Park Municipal Code Section 21.50.070, Sign Regulations, General Requirements.



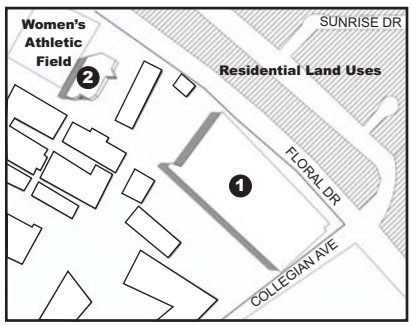
Marquee Type 1. Located south of Parking Structure 3 on the north side of Avenida Cesar Chavez.



Marquee Type 2. Located on the southeast corner of Floral Drive and Avalanche Way.

Marquee Type 3. Located on the southwest corner of Floral Drive and Collegian Avenue.

SOURCE: Risha Engineering Group, 2009



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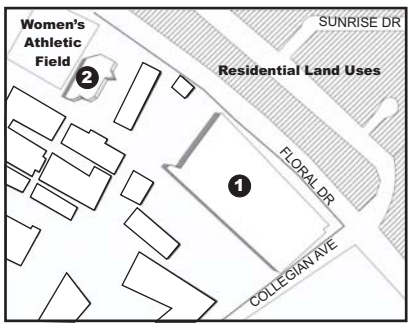

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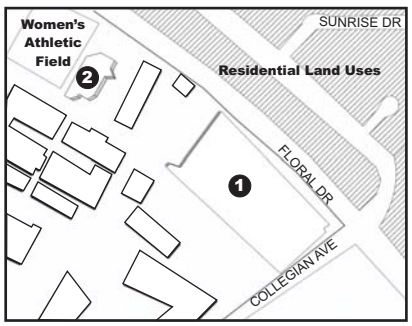

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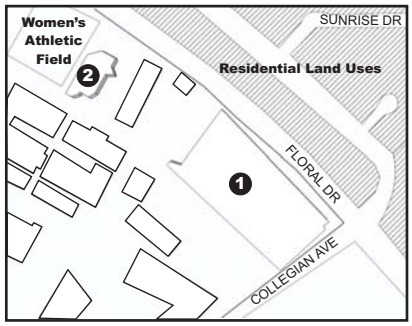

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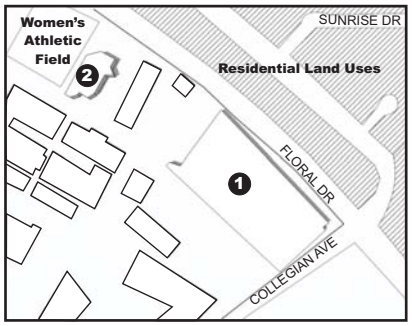

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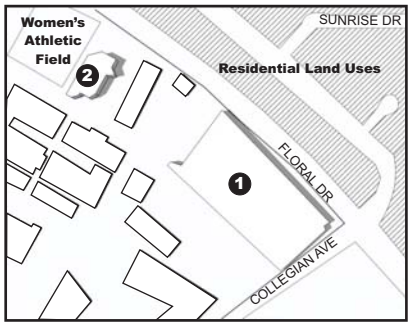

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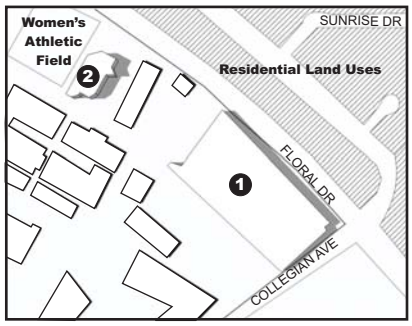

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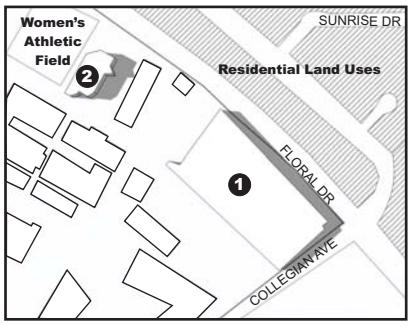

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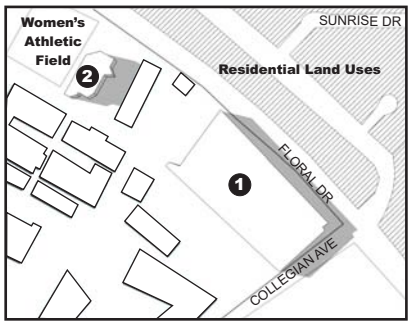

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LEGEND:

☐ Existing Buildings

❶ New Buildings With Potential Shadow Impacts

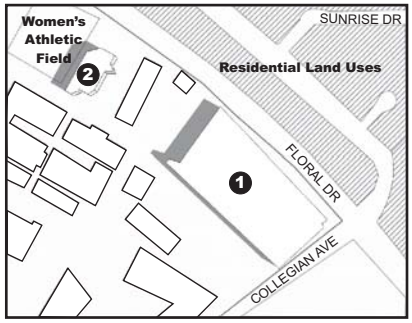
1. Parking Structure 4

2. Vocational/General Classrooms Building

SOURCE: TAHA, 2010

FIGURE 4.1-6

BUILDING GROUP A
SUMMER SOLSTICE SHADOWS



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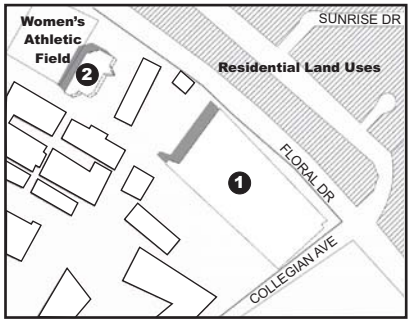

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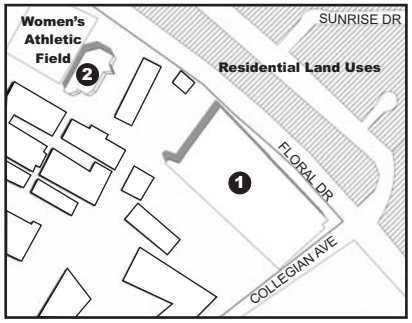

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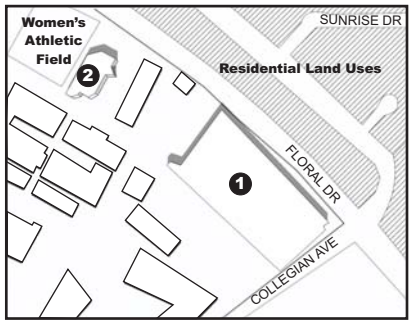

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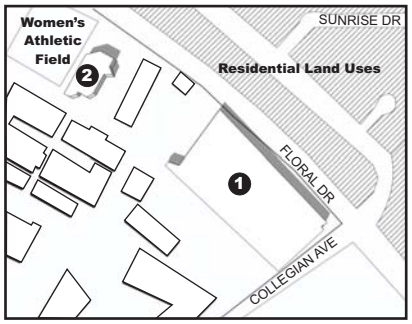

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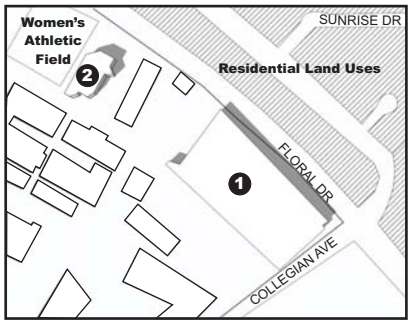

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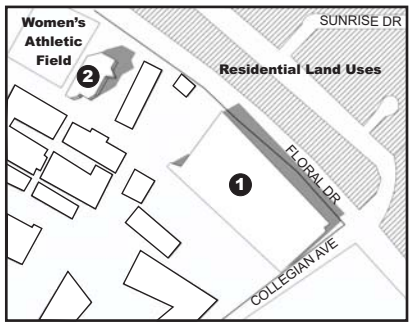

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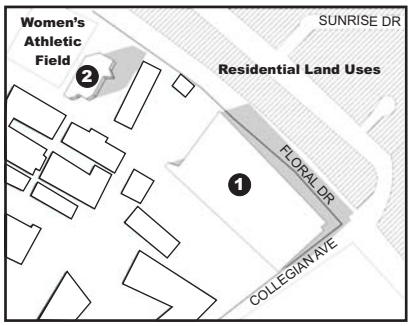

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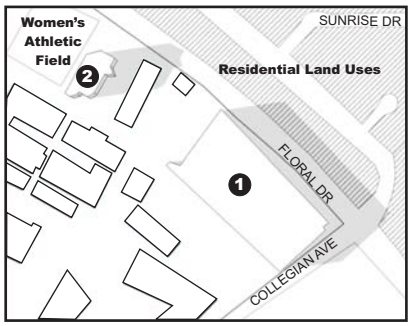

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LEGEND:

☐ Existing Buildings

❶ New Buildings With Potential Shadow Impacts

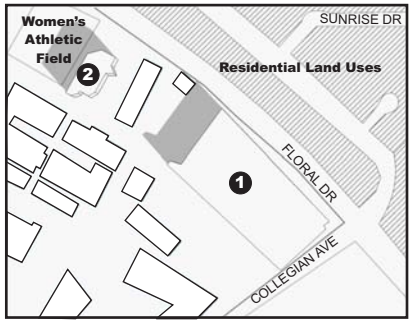
1. Parking Structure 4

2. Vocational/General Classrooms Building

SOURCE: TAHA, 2010

FIGURE 4.1-7

BUILDING GROUP A
SPRING/FALL EQUINOX SHADOWS



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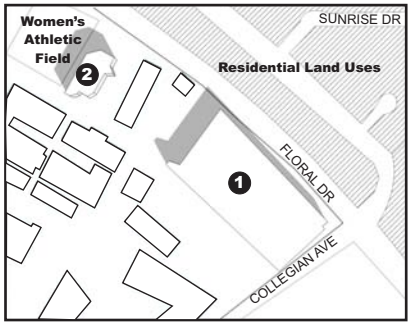

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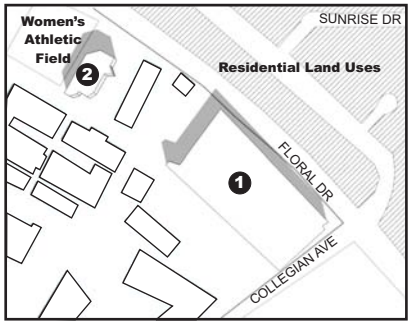

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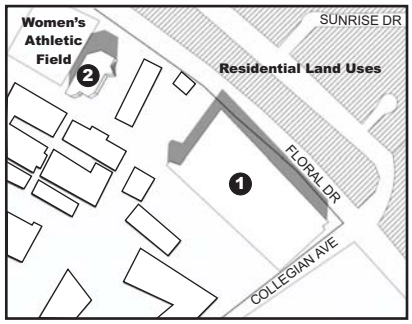

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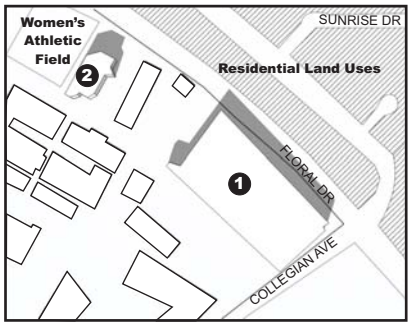

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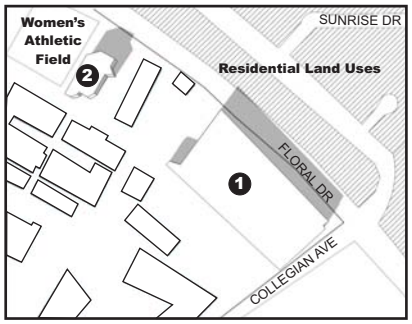

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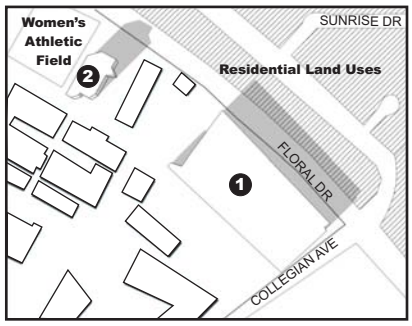


3:00 PM

LEGEND:

☐ Existing Buildings

❶ New Buildings With Potential Shadow Impacts

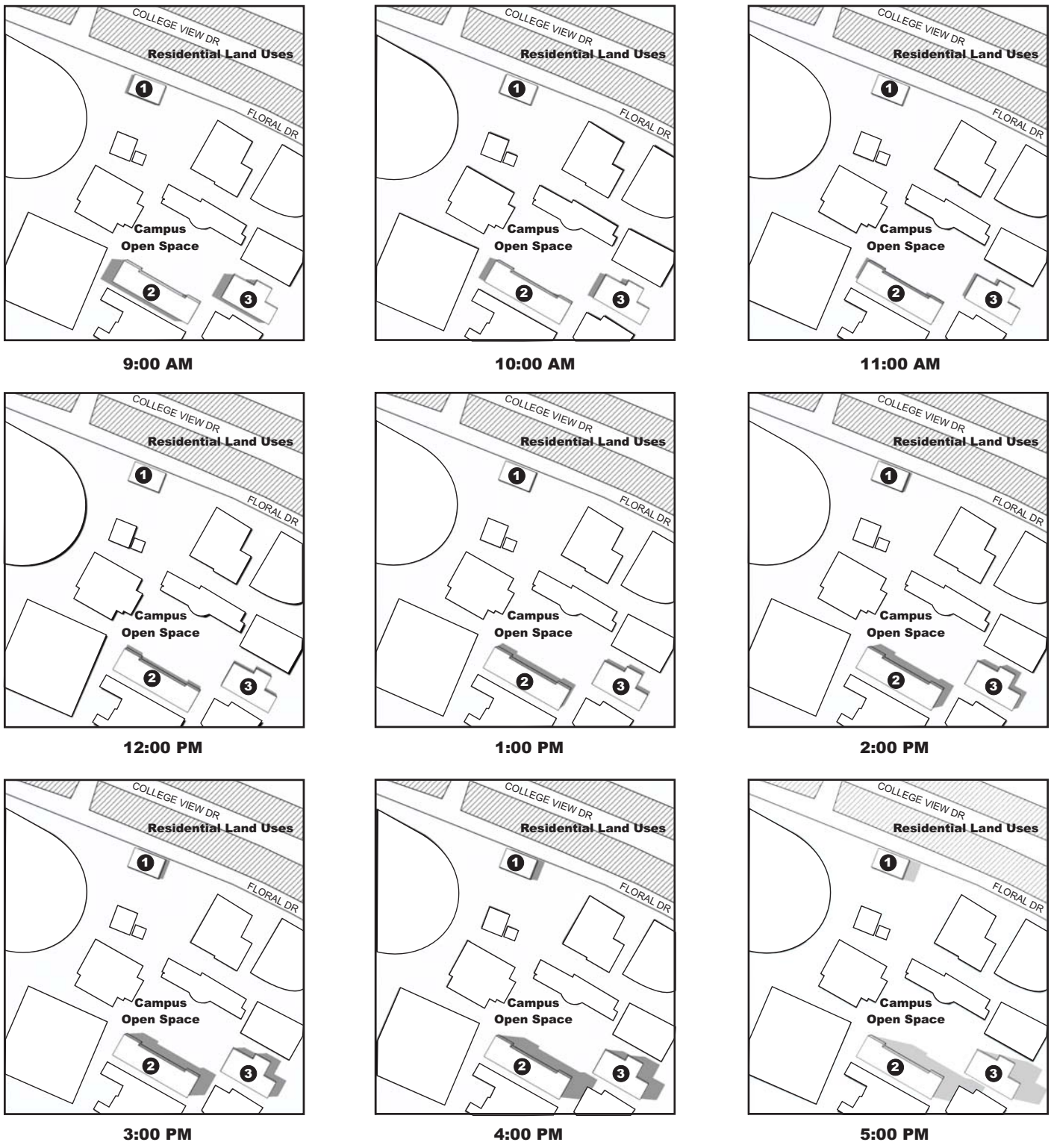
1. Parking Structure 4

2. Vocational/General Classrooms Building

SOURCE: TAHA, 2010

FIGURE 4.1-8

BUILDING GROUP A
WINTER SOLSTICE SHADOWS



LEGEND:

(#) New Buildings With Potential Shadow Impacts ☐ Existing Buildings

1. Central Plant

2. Student Success and Retention Center

3. Campus Student Center/Bookstore Complex

SOURCE: TAHA, 2010

N

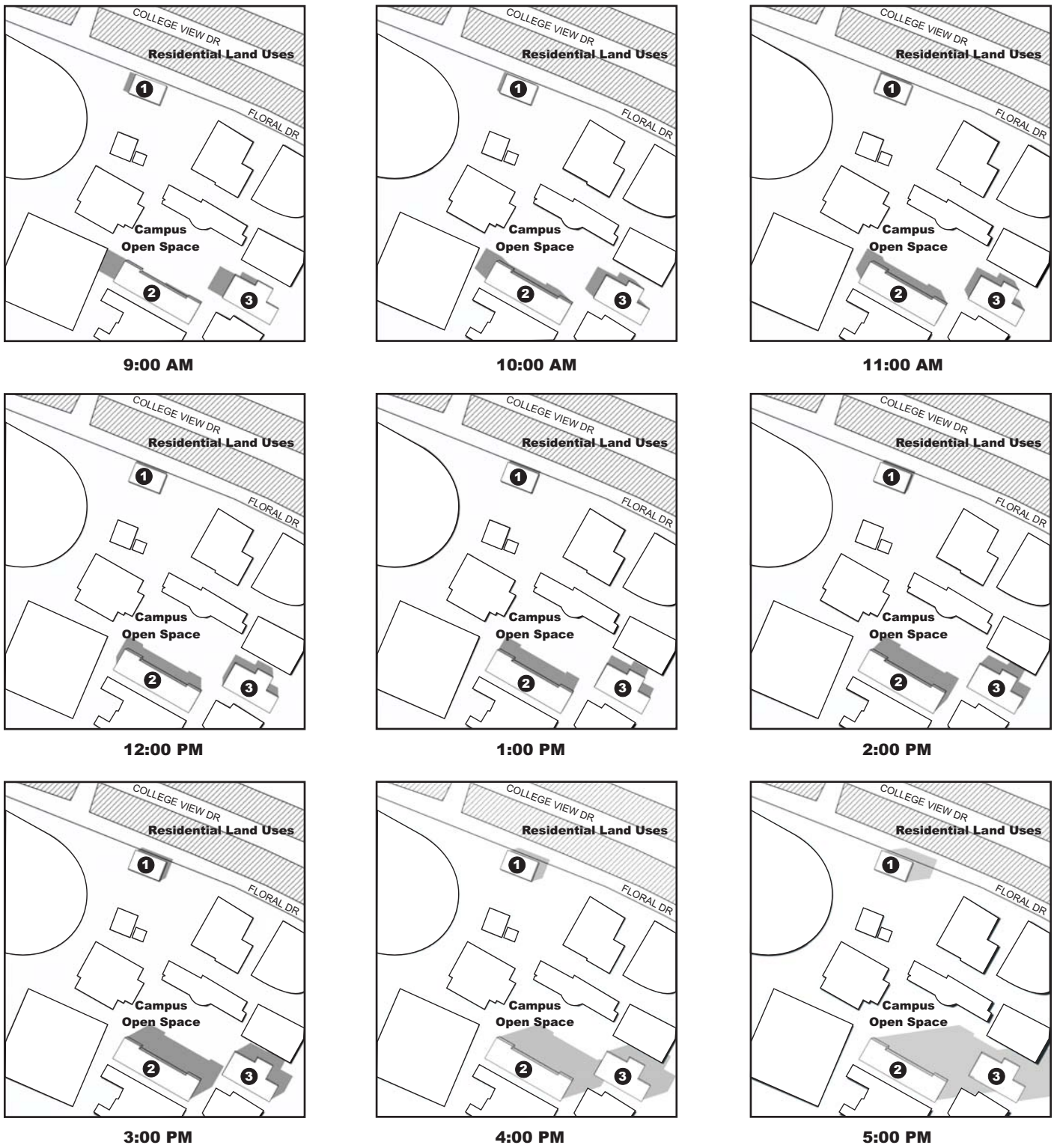
taha 2009-037

East Los Angeles College Facilities Master Plan Update
Supplemental Environmental Impact Report

LOS ANGELES COMMUNITY COLLEGE DISTRICT

FIGURE 4.1-9

BUILDING GROUP B
SUMMER SOLSTICE SHADOWS



LEGEND:

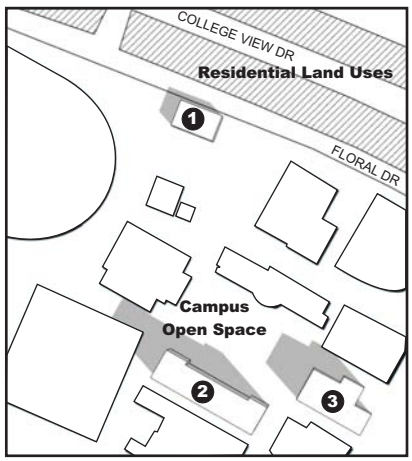
(#) New Buildings With Potential Shadow Impacts ☐ Existing Buildings

1. Central Plant

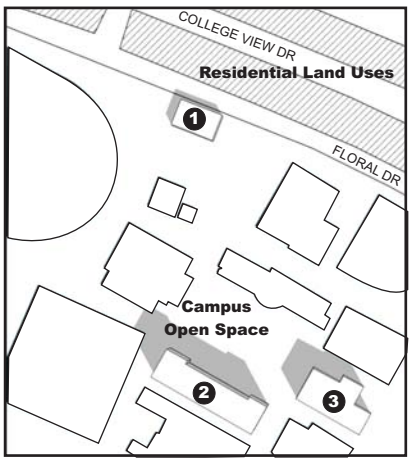
2. Student Success and Retention Center

3. Campus Student Center/Bookstore Complex

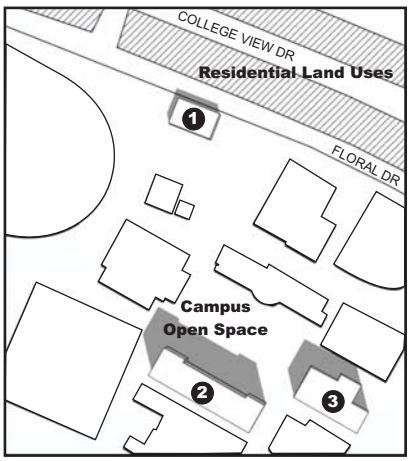
SOURCE: TAHA, 2010



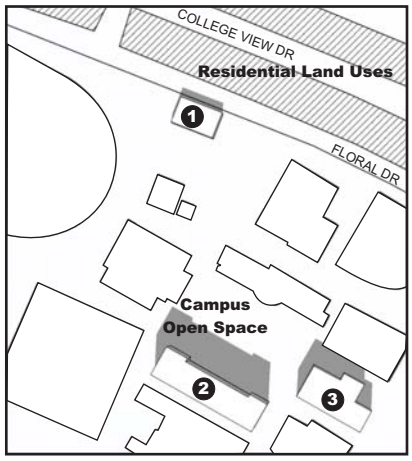
9:00 AM



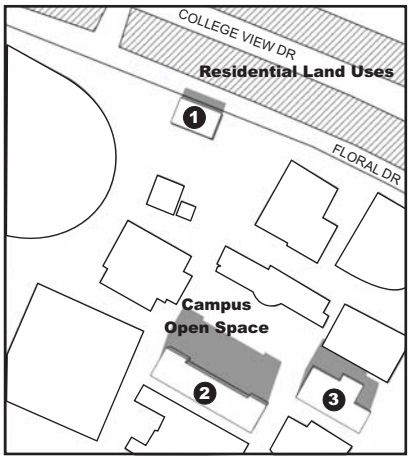
10:00 AM



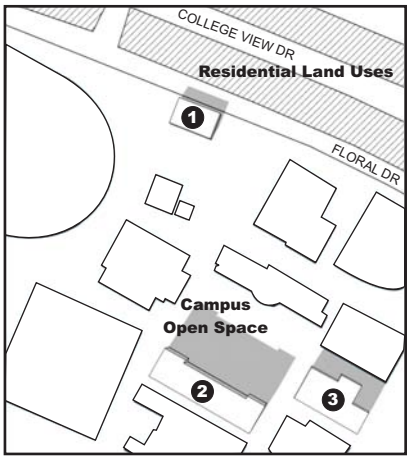
11:00 AM



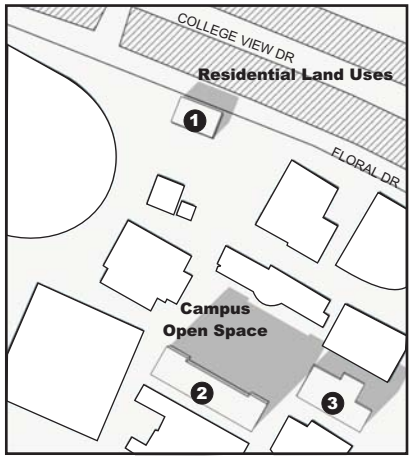
12:00 PM



1:00 PM



2:00 PM



3:00 PM

LEGEND:

(#) New Buildings With Potential Shadow Impacts ☐ Existing Buildings

1. Central Plant

2. Student Success and Retention Center

3. Campus Student Center/Bookstore Complex

SOURCE: TAHA, 2010

Building Group A. Parking Structure 4 and the Vocational/General Classrooms Building are proposed to be an estimated 47 and 50 feet in height, respectively. The longest shadows cast for a 47- and 50-foot building would occur during the Winter Solstice at 9:00 a.m. and 3:00 p.m. Partial shadow coverage of the residences to the north resulting from the proposed Parking Structure 4 would occur for one hour from 2:00 to 3:00 p.m. This shadow length would not affect residences on the north side of Floral Drive for three hours or more during the three key solar periods. Partial shadow coverage of the proposed Women's Athletic Field would occur for two hours from 9:00 a.m. to 11:00 p.m. The Women's Athletic Field would not be covered by project-related shadows for three hours or more during the three key solar periods. Therefore, the proposed project would result in less-than-significant impacts related to shadows resulting from the Parking Structure 4 and Vocational/General Classrooms Building.

Building Group B. The Central Plant is proposed to be approximately 21 feet in height. The longest shadows cast for a 21-foot building would not affect the residences to the north. The Student Success and Retention Center and the Campus Student Center/Bookstore Complex are proposed to be approximately 74 and 50 feet in height, respectively. Partial shadow coverage of the campus outdoor space north of the proposed Student Success and Retention Center would occur for six hours from 9:00 a.m. to 3:00 p.m. However, full shadow coverage would only occur for one hour between 2:00 p.m. and 3:00 p.m. The Campus Student Center/Bookstore Complex is proposed to be approximately 50 feet in height. Partial shadow coverage of the campus outdoor space would occur for one hour between 9:00 a.m. and 10:00 a.m. These shadow lengths would not affect the proposed campus outdoor space for three hours or more during the three key solar periods. Therefore, the proposed project would result in less-than-significant impacts related to shadows resulting from the Central Plant, Student Success and Retention Center and Campus Student Center/Bookstore Complex.

MITIGATION MEASURES

Mitigation measures are numbered sequentially following previously identified mitigation measures prescribed in the Final EIR for the 1998 Facilities Master Plan and the Addendum for the 2004 Facilities Master Plan Update.

Visual Character

As no potential significant impacts have been identified, no mitigation measures are required.

Light and Glare

L4 The proposed Parking Structure 4 shall include landscaping, such that once trees and shrubs mature, provides for screening along the northern boundary of the parking structure to diffuse glare and spillover light. Screening shall be of such height and density to intercept the line of sight between the light fixtures and adjacent residential properties or; the proposed parking structure shall include solid walls without openings on the north side of the parking structure, to minimize spillover lighting impacts on adjacent residences.

L5 East Los Angeles College shall reduce the duration of spillover lighting on surrounding residential properties by not operating the Campus Marquees between the hours of 10:00 p.m. and 6:00 a.m. of the following day.

Shade and Shadows

As no potential significant impacts have been identified, no mitigation measures are required.

LEVEL OF IMPACT AFTER MITIGATION

Visual Character

Impacts associated with visual character are considered less-than-significant without mitigation.

Light and Glare

Implementation of Mitigation Measure **L4** would reduce the significant impacts related to light and glare from the proposed Parking Structure 4 to a less-than-significant level.

Implementation of Mitigation Measure **L5** would reduce the amount of spillover light onto adjacent residences during the late evening hours. Nonetheless, spillover light from the Campus Marquees would still exceed the 400 fl threshold for illuminated signs. Installation of the Campus Marquees would result in an unavoidable significant lighting impact.

Shade and Shadows

Impacts associated with shade and shadows are considered less-than-significant without mitigation.

4.2 AIR QUALITY

This section examines the degree to which the proposed project may cause significant adverse changes to air quality. Both short-term construction emissions occurring from activities, such as site grading and haul truck trips, and long-term effects related to the ongoing operation of the proposed project are discussed in this section. This analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the quantity of pollutants released into the air, measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air, measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). Air calculations and modeling files are presented in Appendix B.

ENVIRONMENTAL SETTING

Pollutants and Effects

Air quality studies generally focus on the following criteria pollutants which are most commonly measured and regulated: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter ten microns or less in diameter (PM_{10}), and sulfur dioxide (SO_2). Air quality studies also often analyze toxic air contaminants and greenhouse gases.

Carbon Monoxide. CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spacial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February.[1] The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Ozone. O_3 is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG), which includes volatile organic compounds (VOC), and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. O_3 is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_X, the components of O_3, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

Nitrogen Dioxide. NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10}. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-

[1] Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air.

red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase of bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 ppm.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g. motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_X, and VOC. Inhalable particulate matter, or PM_{10}, is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel.

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans. A toxic substance released into the air is considered a toxic air contaminant (TAC). TACs are identified by State and federal agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management was designed to protect residents from the health effects of toxic substances in the air.

Greenhouse Gases. Greenhouse gas (GHG) emissions refer to a group of emissions that are generally believed to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the greenhouse effect, the Earth would be a frozen globe with an average surface temperature of about 5°F.

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and water vapor. Of all the GHGs, CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. CO_2 comprised 83.3 percent of the total GHG emissions in California in 2002.[2] The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. The CO_2e of CH_4 and N_2O represented 6.4 and 6.8 percent, respectively, of the 2002 California GHG emissions. Other high global warming potential gases represented 3.5 percent of these emissions.[3] In addition, there are a number of human-made pollutants, such as CO, NO_X, non-methane VOC, and SO_2, that have indirect effects on terrestrial or solar radiation absorption by influencing the formation or destruction of other climate change emissions.

South Coast Air Basin

The project site is located within the Los Angeles County portion of the South Coast Air Basin. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the Basin.

The Basin is in an area of high air pollution potential due to its climate and topography. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The Basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The Basin experiences frequent temperature inversions. Temperature typically decreases with height. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). In the morning, CO levels are relatively high due to cold temperatures and the large number of cars traveling. High CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO emissions are produced almost entirely from automobiles, the highest CO concentrations in the Basin are associated with heavy traffic. NO_2 concentrations are also generally higher during fall and winter days.

Local Climate

The mountains and hills within the Basin contribute to the variation of rainfall, temperature, and winds throughout the region. Within the project site and its vicinity, the average wind speed, as recorded at the

[2]California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006, p. 11.
[3]*Ibid*.

Downtown Los Angeles Wind Monitoring Station, is 4.7 miles per hour. Wind in the vicinity of the project site predominately blows from the west and southwest.[4]
The annual average temperature in the project area is 64.9°F.[5] The project area experiences an average winter temperature of 58.0°F and an average summer temperature of 71.5°F. Total precipitation in the project area averages 14.8 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages 9.0 inches during the winter, 3.7 inches during the spring, 2.0 inches during the fall, and less than one inch during the summer.[6]

Regulatory Setting

The Federal Clean Air Act (CAA) governs air quality in the United States. In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, CAA is administered by the United States Environmental Protection Agency (USEPA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels.

Federal

United States Environmental Protection Agency. USEPA is responsible for enforcing the CAA. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in States other than California. Automobiles sold in California must meet stricter emission standards established by CARB.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in **Table 4.2-1**. The USEPA has classified the Basin as maintenance for CO and nonattainment for O_3, $PM_{2.5}$, and PM_{10}.

[4]SCAQMD, *Meteorological Data*, Available at: http://www.aqmd.gov/smog/metdata/MeteorologicalData.html, Accessed January 19, 2010.
[5]Western Regional Climate Center, *Historical Climate Information*, Available at: http://www.wrcc.dri.edu, Accessed January 19, 2010.
[6]*Ibid*.

TABLE 4.2-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	n/a	0.075 ppm (147 µg/m^3)	Nonattainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Nonattainment	150 µg/m^3	Nonattainment
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	15.0 µg/m^3	Nonattainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Maintenance
	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
	1-hour	0.18 ppm (338 µg/m^3)	Attainment	--	--
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m^3)	Attainment
	24-hour	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	3-hour	--	--	--	--
	1-hour	0.25 ppm (655 µg/m^3)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m^3	Attainment

n/a = not available
SOURCE: CARB, *Ambient Air Quality Standards*, November 17, 2008.

State

California Air Resources Board. In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the State requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles.

CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn administer air quality activities at the regional and county levels. The State standards are summarized in **Table 4.2-1**, above.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, $PM_{2.5}$, and PM_{10}.

Local

South Coast Air Quality Management District. The 1977 Lewis Air Quality Management Act created the South Coast Air Quality Management District (SCAQMD) to coordinate air quality planning efforts throughout Southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in Southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality within the project area. The SCAQMD has jurisdiction over an area of 10,743 square miles, consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin is a subregion of the SCAQMD and covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south (**Figure 4.2-1**).

Air Quality Management Plan. All areas designated as nonattainment under the CCAA are required to prepare plans showing how the area would meet the State air quality standards by its attainment dates. The AQMP is the region's plan for improving air quality in the region. It addresses CAA and CCAA requirements and demonstrates attainment with State and federal ambient air quality standards. The AQMP is prepared by SCAQMD and the Southern California Association of Governments (SCAG). The AQMP provides policies and control measures that reduce emissions to attain both State and federal ambient air quality standards by their applicable deadlines. Environmental review of individual projects within the Basin must demonstrate that daily construction and operational emissions thresholds, as established by the SCAQMD, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

LEGEND:

South Coast Air Basin

State of California

SOURCE: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998

Approx. Scale

N

0 75 150 Miles

taha

East Los Angeles College Facilities Master Plan Update
Supplemental Environmental Impact Report

taha 2009-037

LOS ANGELES COMMUNITY COLLEGE DISTRICT

FIGURE 4.2-1

SOUTH COAST AIR BASIN

The 2007 AQMP was adopted by the SCAQMD on June 1, 2007. The 2007 AQMP proposes attainment demonstration of the federal $PM_{2.5}$ standards through a more focused control of SO_X, directly-emitted $PM_{2.5}$, and NO_X supplemented with VOC by 2015. The eight-hour ozone control strategy builds upon the $PM_{2.5}$ strategy, augmented with additional NO_X and VOC reductions to meet the standard by 2024. The 2007 AQMP also addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2007 AQMP is consistent with and builds upon the approaches taken in the 2003 AQMP. However, the 2007 AQMP highlights the significant amount of reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the time frames allowed under the CAA.

Toxic Air Contaminants. The SCAQMD has a long and successful history of reducing air toxics and criteria emissions in the South Coast Air Basin (Basin). SCAQMD has an extensive control program, including traditional and innovative rules and policies. These policies can be viewed in the SCAQMD's Air Toxics Control Plan for the Next Ten Years (March 2000). To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III), conducted by the SCAQMD.[7] The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the average cancer risk in the region from carcinogenic air pollutants ranges from about 870 in a million to 1,400 in a million, with an average regional risk of about 1,200 in a million.

Global Climate Change

In response to growing scientific and political concern with global climate change, California has recently adopted a series of laws to reduce emissions of GHGs into the atmosphere. In September 2002, Assembly Bill (AB) 1493 was enacted, requiring the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. California Governor Arnold Schwarzenegger announced, on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

In response to the Executive Order, the Secretary of the California Environmental Protection Agency created the Climate Action Team (CAT), which, in March 2006, published the Climate Action Team Report to Governor Schwarzenegger and the Legislature (2006 CAT Report). The 2006 CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with existing authority of the State agencies.

Assembly Bill 32. In September 2006, Governor Arnold Schwarzenegger signed the California Global Warming Solutions Act of 2006, also known as AB 32, into law. AB 32 focuses on reducing GHG emissions in California, and requires the CARB to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to statewide levels in 1990 by 2020. To achieve this goal, AB 32 mandates that the CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB

[7]SCAQMD, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-III)*, September 2008.

32 is to limit 2020 emissions to the equivalent of 1990, and the present year (2009) is near the midpoint of this timeframe, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State.

AB 32 charges the CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, the CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills. On October 25, 2007, the CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing perfluorocarbons from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emission from the non-electricity sector. The CARB has determined that the total statewide aggregated greenhouse gas 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO_2e. The 2020 target reductions are currently estimated to be 174 million metric tons of CO_2e.

The CARB AB 32 Scoping Plan contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by the CARB with input from the Climate Action Team and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The measures in the Scoping Plan adopted by the Board will be developed and put in place by 2012.

The CARB has also developed the greenhouse gas mandatory reporting regulation, which required reporting beginning on January 1, 2008 pursuant to requirements of AB 32. The regulations require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. The regulation language identifies major facilities as those that generate more than 25,000 metric tons of CO_2 per year. Cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 metric tons of CO_2 per year, make up 94 percent of the point source CO_2 emissions in California.

CEQA Guideline Amendments. California Senate Bill (SB) 97 required the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." The CEQA Guideline amendments take effect March 18, 2010 and provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. Noteworthy revisions to the CEQA Guidelines include:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;
- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and

- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

Senate Bill 375. California Senate Bill (SB) 375, passed September 30, 2008, provides a means for achieving AB 32 goals through regulation of cars and light trucks. SB 375 aligns three critical policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve greenhouse gas emissions reductions targets for the transportation sector. SB 375 establishes a process for CARB to develop the GHG emissions reductions targets for each region (as opposed to individual local governments or households). CARB must take certain factors into account before setting the targets, such as considering the likely reductions that will result from actions to improve the fuel efficiency of the Statewide fleet and regulations related to the carbon content of fuels (low carbon fuels). CARB must also convene a Regional Targets Advisory Committee, which includes representation from the League of California Cities, California State Association of Counties, metropolitan planning organizations, developers, planning organizations and other stakeholder groups. Furthermore, before setting the targets for each region, CARB is required to exchange technical information with the Metropolitan Planning Organizations (MPOs) for that region and with the affected air district. SB 375 provides that the MPOs may recommend a target for its region.

SB 375 relies upon regional planning processes already underway in the 17 MPOs in the State to accomplish its objectives. The provisions related to GHG emissions only apply to the MPOs in the State, which includes 37 of the 58 counties. Most notably, the measure requires the MPO to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP), which sets forth a vision for growth for the region taking into account the transportation, housing, environmental, and economic needs of the region. The SCS is the blueprint by which the region will meet its GHG emissions reductions target if there is a feasible way to do so.

SB 375 indirectly addresses another longstanding issue: single purpose State agencies. The new law will require the cooperation of CARB, the California Transportation Commission (CTC), the California Department of Transportation (Caltrans) and the State Department of Housing and Community Development (HCD). For example, SB 375 takes a first step to counter this problem by connecting the Regional Housing Needs Allocation (RHNA) to the transportation planning process. While these State agencies will be involved in setting the targets and adopting new guidelines, local governments and the MPOs will not only provide input into setting the targets, but will serve as the lead on implementation. Member cities and counties working through their MPOs are tasked with development of the new integrated regional planning and transportation strategies designed to meet the GHG targets.

SB 375 also includes a provision that applies to all regional transportation planning agencies in the State that recognizes the rural contribution towards reducing GHGs. More specifically, the bill requires regional transportation agencies to consider financial incentives for cities and counties that have resource areas or farmland, for the purposes of, for example, transportation investments for the preservation and safety of the city street or county road system, farm to market, and interconnectivity transportation needs. An MPO or county transportation agency shall also consider financial assistance for counties to address countywide service responsibilities in counties that contribute towards the GHG emissions reductions targets by implementing policies for growth to occur within their cities.

SB 375 uses California Environmental Quality Act (CEQA) streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Cities and counties that find the CEQA streamlining provisions attractive have the opportunity (but not the obligation) to align their planning decisions with the decisions of the region.

SB 375 provides more certainty for local governments and developers by framing how AB 32's reduction goal from transportation for cars and light trucks will be established. It should be noted, however, that SB 375 does not prevent CARB from adopting additional regulations under its AB 32 authority. However, based on the degree of consensus around SB 375 and early indications from CARB, such actions are not anticipated in the foreseeable future.

CARB Guidance. The CARB has published draft guidance for setting interim GHG significance thresholds (October 24, 2008). The guidance is the first step toward developing the recommended Statewide interim thresholds of significance for GHG emissions that may be adopted by local agencies for their own use. The guidance does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that are responsible for substantial GHG emissions (i.e., industrial, residential, and commercial projects). The CARB believes that thresholds in these important sectors will advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

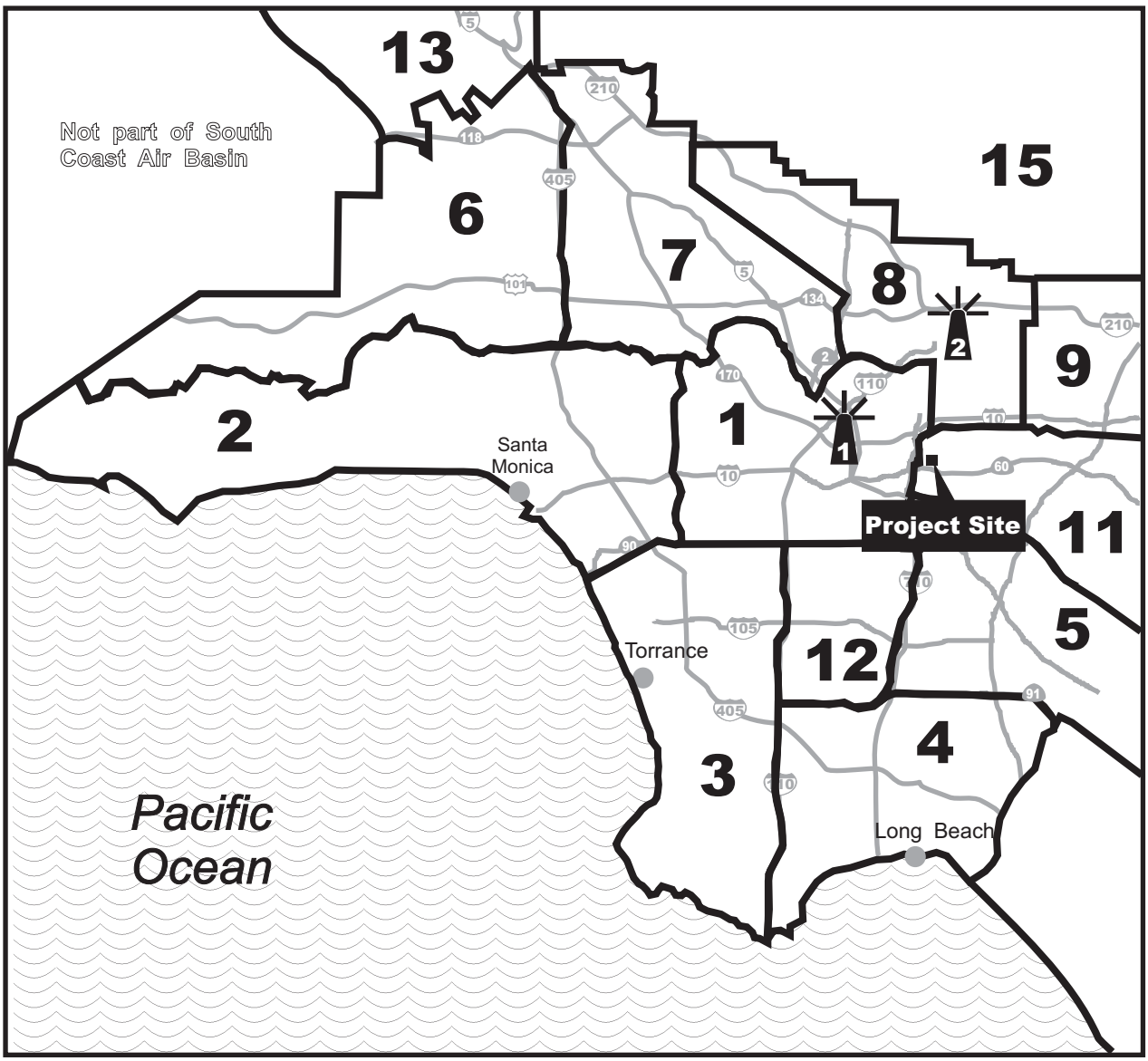
SCAQMD Guidance. The SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD has not adopted guidance for CEQA projects under other lead agencies.

Local Air Monitoring Data

The SCAQMD monitors air quality conditions at 38 locations throughout the Basin. The project site is located in SCAQMD's South San Gabriel Air Monitoring Subregion. The nearest, most representative monitoring station is the Pasadena Monitoring Station, located approximately eight miles north of the project site (**Figure 4.2-2**). Historical data from the Pasadena Monitoring Station were used to characterize existing conditions in the vicinity of the project area. Criteria pollutants monitored at the Pasadena Monitoring Station include O_3, CO, $PM_{2.5}$, and NO_2. However, the Pasadena Monitoring Station does not monitor SO_2 and PM_{10} levels. The next most representative monitoring station is the Downtown Los Angeles Monitoring Station. Historical data from the Downtown Los Angeles Monitoring Station was used to characterize existing SO_2 and PM_{10} levels.

Table 4.2-2 shows pollutant levels, the State and federal standards, and the number of exceedances recorded at the relevant monitoring station compared to the San Gabriel Valley General Forecast Area (Forecast Area) from 2006 to 2008, which consists of the West San Gabriel Valley, East San Gabriel Valley, Pomona/Walnut Valley and South San Gabriel Valley Monitoring Areas.

The CAAQS for the criteria pollutants are also shown in the table. As **Table 4.2-2** indicates, criteria pollutants CO, NO_2, and SO_2 did not exceed the CAAQS during the 2006 to 2008 period. The one-hour State standard for O_3 was exceeded 13 to 25 times during this period, and the eight-hour State standard for O_3 was exceeded 21 to 26 times during this period. The 24-hour State standard for PM_{10} was exceeded four times during 2006 and 2007 and three times during 2008. The annual State standard for $PM_{2.5}$ was exceeded each year. When compared to the Forecast Area, the Pasadena Monitoring Station has recorded similar concentrations for O_3, CO, NO_2, $PM_{2.5}$, PM_{10}, and SO_2.



LEGEND: 1 Los Angeles Monitoring Station 2 Pasadena Monitoring Station

Air Monitoring Areas in Los Angeles County:

1. Central Los Angeles
2. Northwest Coastal
3. Southwest Coastal
4. South Coastal
5. Southeast Los Angeles County
6. West San Fernando Valley
7. East San Fernando Valley
8. West San Gabriel Valley
9. East San Gabriel Valley
10. Pomona/Walnut Valley (not shown)
11. South San Gabriel Valley
12. South Central Los Angeles
13. Santa Clarita Valley
15. San Gabriel Mountains

APPROX. SCALE

N

0 3.0 6.0 9.0 MILES

SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1999

FIGURE 4.2-2

AIR QUALITY MONITORING AREAS

TABLE 4.2-2: 2006-2008 AMBIENT AIR QUALITY DATA IN THE PROJECT VICINITY

Pollutant	Pollutant Concentration & Standards	Pasadena and Downtown Los Angeles Monitoring Stations /a/			San Gabriel Valley General Forecast Area /b,c/		
		Number of Days Above State Standard					
		2006	2007	2008	2006	2007	2008
Ozone	Maximum 1-hr Concentration (ppm)	0.15	0.15	0.12	0.15	0.15	0.13
	Days > 0.09 ppm (State 1-hr standard)	25	13	16	22	15	22
	Maximum 8-hr Concentration (ppm)	0.12	0.10	0.10	0.12	0.11	0.10
	Days > 0.07 ppm (State 8-hr standard)	24	21	26	20	21	31
Carbon Monoxide	Maximum 1-hr concentration (ppm)	4	3	3	3	4	3
	Days > 20 ppm (State1-hr standard)	0	0	0	0	0	0
	Maximum 8-hr concentration (ppm)	2.8	2.4	2.1	2.3	2.4	2.0
	Days > 9.0 ppm (State 8-hr standard)	0	0	0	0	0	0
Nitrogen Dioxide	Maximum 1-hr Concentration (ppm)	0.12	0.09	0.11	0.11	0.11	0.11
	Days > 0.18 ppm (State 1-hr standard)	0	0	0	0	0	0
PM_{10}	Maximum 24-hr concentration ($\mu g/m^3$)	59	78	66	59	78	66
	Estimated Days > 50 $\mu g/m^3$ (24-hr standard)	4	4	3	4	4	3
$PM_{2.5}$	Annual Arithmetic Mean ($\mu g/m^3$)	13	14	13	15	16	14
	Exceed State Standard (12 $\mu g/m^3$)?	Yes	Yes	Yes	Yes	Yes	Yes
Sulfur Dioxide	Maximum 24-hr Concentration (ppm)	0.01	0.01	<0.01	0.01	0.01	<0.01
	Days > 0.04 ppm (State 24-hr standard)	0	0	0	0	0	0

/a/ O_3, CO, NO_2, and $PM_{2.5}$, data were obtained from the Pasadena Monitoring Station and SO_2 and PM_{10} data were obtained from the Downtown Los Angeles Monitoring Station.

/b/ The San Gabriel Valley General Forecast Area includes West San Gabriel Valley, East San Gabriel Valley, Pomona/Walnut Valley, and South San Gabriel Valley air monitoring areas of the SCAQMD.

/c/ An average of the maximum concentration of each criteria pollutant of the air monitoring areas of the San Gabriel Valley General Forecast Area was used to represent maximum concentrations in the General Forecast Area.

SOURCE: SCAQMD, *Historical Data by Year*, Available at: http://www.aqmd.gov/smog/historicaldata.htm, Accessed January 5, 2010.

Existing Carbon Monoxide Concentrations at Project Area Intersections

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic are the primary source of CO. CO is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found in areas directly adjacent to congested roadway intersections.

SCAQMD defines the ambient CO level as the highest reading over the past three years. A review of data from the Pasadena Monitoring Station for the 2006 to 2008 period indicates that the one- and eight-hour background concentrations are approximately 4 and 2.8 ppm, respectively. Accordingly, the existing background concentrations do not exceed the State one- and eight-hour CO standards of 20 and 9.0 ppm, respectively.

Existing CO concentrations were modeled at intersections near the project site. The study intersections were selected to be representative of the project area and were based on traffic volume to capacity (V/C) ratio and the traffic level of service (LOS) as indicated in the traffic analysis. The intersections were selected because they represent the busiest or most congested intersections analyzed in the traffic analysis.

The selected intersections are as follows:

- Ford Boulevard/I-710 Northbound On-Ramp – PM Peak Hour

- Bleakwood Avenue and Floral Drive – AM Peak Hour
- Bleakwood Avenue and Floral Drive – PM Peak Hour
- 1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – AM Peak Hour
- 1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – PM Peak Hour

At each intersection, traffic-related CO contributions were added to background CO conditions. Traffic CO contributions were estimated using the USEPA CAL3QHC dispersion model, which utilizes traffic volume inputs and CARB EMFAC2007 emissions factors. Consistent with the California Department of Transportation (Caltrans) CO protocol, receptors for the analysis were located three meters (approximately ten feet) from each intersection corner. Existing conditions at the study intersections are shown in **Table 4.2-3**. One-hour CO concentrations would be range from approximately 4 to 5 ppm and eight-hour CO concentrations range from approximately 3.0 to 3.2 ppm. Presently, none of the study intersections exceed the State one- and eight-hour CO standards of 20 and 9.0 ppm, respectively.

TABLE 4.2-3: EXISTING CARBON MONOXIDE CONCENTRATIONS /a/

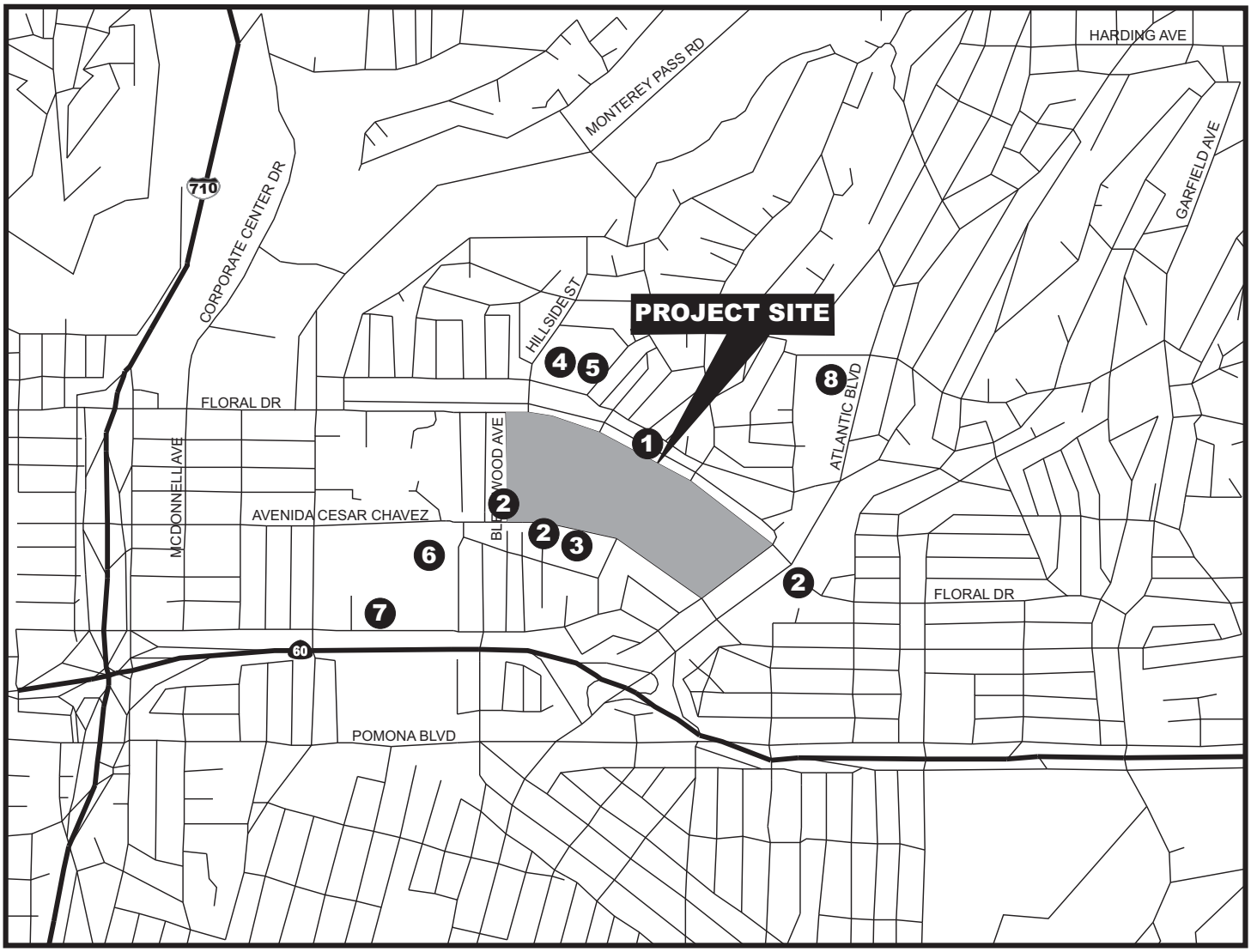
Intersection	1-hour (parts per million)	8-hour (parts per million)
Ford Boulevard/I-710 Northbound On-Ramp – PM Peak Hour	4	3.1
Bleakwood Avenue and Floral Drive – AM Peak Hour	4	3.0
Bleakwood Avenue and Floral Drive – PM Peak Hour	4	3.0
1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – AM Peak Hour	5	3.2
1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – PM Peak Hour	5	3.2
State Standard	**20**	**9.0**

/a/ All concentrations include one- and eight-hour ambient concentrations of 4 and 2.8 ppm, respectively.
SOURCE: TAHA, 2010.

Sensitive Receptors

Off-Site Receptors. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive receptor distances presented below are measured from the nearest construction activity. As shown in **Figure 4.2-3**, sensitive receptors include the following:

- Single- and multi-family residences located approximately 65 feet to the north
- Single-family residences located approximately 65 feet to the west
- Single-family residences located approximately 110 feet to the south
- Robert Hill Lane Elementary School located approximately 120 feet to the south
- Brightwood Elementary School located approximately 525 feet to the north
- Sunnyslopes Park located approximately 540 feet to the north
- Single-family residences located approximately 790 feet to the east
- Belvedere Park located approximately 795 feet to the southwest
- Morris K. Hamasaki Elementary School located approximately 1,690 feet to the southwest
- St. Thomas Aquinas School located approximately 1,695 feet to the northeast



LEGEND:

Project Site

Sensitive Receptors

1. Single- and Multi-Family Residences
2. Single-Family Residences
3. Robert Lane Hill Elementary School
4. Brightwood Elementary School
5. Sunnyslopes Park
6. Belvedere Park
7. Morris K. Hamasaki Elementary School
8. St. Thomas Aquinas School

SOURCE: TAHA, 2009

FIGURE 4.2-3

AIR QUALITY SENSITIVE RECEPTOR LOCATIONS

The above sensitive receptors represent the nearest sensitive receptors with the potential to be impacted by the proposed project. Additional sensitive receptors are located in the surrounding community and may be impacted by the proposed project.

On-Site Receptors. A Child Development Center is located at the southwest border of the campus on Bleakwood Avenue and Avenida Cesar Chavez. The Center includes an outdoor play area on the northeast side of the building. The Center monitors children ages three to ten, and children up to fourth grade during the Fall and Spring only. The Center maintains business hours from 7:30 a.m. to 8:00 p.m.

PREVIOUSLY DISCLOSED IMPACTS

The Final EIR for the 1998 Facilities Master Plan concluded that construction activity would result in a significant regional PM_{10} impact. Mitigation Measures AQ1 through AQ12 were included to reduce fugitive dust emissions but the mitigated impact remained significant and unavoidable. The Master Plan EIR did not find any other impacts related to air quality.

The Addendum for the 2004 Facilities Master Plan Update concluded that no unavoidable significant impacts would occur with regard to air quality. No additional mitigation measures were required.

THRESHOLDS OF SIGNIFICANCE

Construction Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily regional and localized construction emissions were to exceed SCAQMD construction emissions thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$, or PM_{10}, as presented in **Table 4.2-4**;
- The proposed project would generate significant emissions of TACs; and/or
- The proposed project would create an odor nuisance.

TABLE 4.2-4: SCAQMD DAILY CONSTRUCTION EMISSIONS THRESHOLDS

Criteria Pollutant	Regional Emissions (Pounds Per Day)	Localized Emissions (Pounds Per Day) /a/
Volatile Organic Compounds (VOC)	75	--
Nitrogen Oxides (NO_X)	100	83
Carbon Monoxide (CO)	550	673
Sulfur Oxides (SO_X)	150	--
Fine Particulates ($PM_{2.5}$)	55	4
Particulates (PM_{10})	150	5

/a/ The analysis assumed a one-acre project site and a 25-meter (82-foot) receptor distance.
SOURCE: SCAQMD, 2010.

Operations Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily regional and localized operational emissions were to exceed SCAQMD operational emissions thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$, or PM_{10}, as presented in **Table 4.2-5**;

TABLE 4.2-5: SCAQMD DAILY OPERATIONAL EMISSIONS THRESHOLDS

Criteria Pollutant	Regional Emissions (Pounds Per Day)	Localized Emissions (Pounds Per Day) /a/
Volatile Organic Compounds (VOC)	55	--
Nitrogen Oxides (NO_X)	55	83
Carbon Monoxide (CO)	550	673
Sulfur Oxides (SO_X)	150	--
Fine Particulates ($PM_{2.5}$)	55	1
Particulates (PM_{10})	150	1

/a/ The analysis assumed a one-acre project site and a 25-meter (82-foot) receptor distance.
SOURCE: SCAQMD, 2010.

- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour periods are 20 and 9.0 ppm, respectively;
- The proposed project would generate significant emissions of TACs;
- The proposed project would create an odor nuisance;
- The proposed project would not be consistent with the AQMP; and/or
- The proposed project would not comply with regional and local greenhouse gas regulations and policies.

IMPACTS

Methodology

Construction Emissions. This air quality analysis is consistent with the methods described in the SCAQMD *CEQA Air Quality Handbook*, as well as the updates to the *CEQA Air Quality Handbook*, as provided on the SCAQMD website.[8] Regional and localized construction emissions were analyzed to determine impacts. The proposed project would consist of a number of smaller, similarly-sized construction projects occurring simultaneously. A worst-case scenario was developed based on overlapping construction activity that would produce the greatest emissions for each criteria pollutant. Equipment mixes for individual construction sites were based on SCAQMD's *Sample Construction Scenarios for Projects Less than Five Acres in Size* methodology. Other construction assumptions (maximum daily acres graded, vehicle miles traveled, etc.) were based on assumptions used in SCAQMD's URBEMIS2007.

Construction emissions (i.e., demolition, grading, building construction, and finishing) were calculated using formulas published by the SCAQMD and USEPA. Heavy-duty truck and worker vehicle emission rates were obtained from the EMFAC2007 model. Equipment emission factors were obtained from the

[8]SCAQMD, *Air Quality Analysis Guidance Handbook,* Available at: http://www.aqmd.gov/ceqa/hdbk.html, Accessed December 1, 2009.

OFFROAD2007 model. Refer to Air Quality Appendix for the calculation sheets that include detailed information on construction assumptions.

The localized construction emissions analysis is based on conservative assumptions developed using the guidelines published by the SCAQMD in the Localized Significance Methodology for CEQA Evaluations (SCAQMD Localized Significance Threshold (LST) Guidance Document). Construction grading assumptions were based on the conservative assumptions found in URBEMIS2007 for the maximum daily area disturbed by grading and excavation activities (25% of the total area to be disturbed). Based on that assumption, the proposed project was found to disturb, at most, one acre of land per day. LSTs were developed based on the one acre sample scenario published by the SCAQMD, and sensitive receptor distances were assumed to be worst case at 25 meters (82 feet).

Operational Emissions. Regional and localized operations emissions were also calculated using the URBEMIS2007 model, with operational LSTs developed using SCAQMD's Localized Significance Threshold Guidance Document. Localized CO emissions were calculated utilizing the USEPA CAL3QHC dispersion model and the CARB EMFAC2007 model. EMFAC2007 is the latest emission inventory model for motor vehicles operating on roads in California. This model reflects the CARB's current understanding of how vehicles travel and how much they pollute. The EMFAC2007 model can be used to show how California motor vehicle emissions have changed over time and are projected to change in the future. CAL3QHC is a model developed by USEPA to predict CO and other pollutant concentrations from motor vehicle emissions at roadway intersections. The model uses a traffic algorithm for estimating vehicular queue lengths at signalized intersections.

Greenhouse Gas Emissions. The California Climate Action Registry (CCAR) published version 3.1 of its General Reporting Protocol (Protocol) in January 2009 as a means for businesses, government agencies, and non-profit organizations to calculate greenhouse gas (GHG) emissions from a number of general and industry-specific activities and participate in the CCAR. This Protocol is not intended for CEQA purposes, but it does provide methods that can be used to quantify the GHG emissions of CO_2, methane CH_4, and nitrous oxide N_2O associated with a project's increase in on-road mobile vehicle operations, electricity consumption, and natural gas consumption.

The consumption of fossil fuels to generate electricity and to provide heating and hot water for the proposed project, as well as the consumption of fuel by on-road mobile vehicles associated with the proposed project, has the potential to create GHG emissions. The future fuel consumption rates for the proposed project by these sources are estimated based on the amount of proposed development. Natural gas and electricity demand were obtained from Section 7.0 (Effects Determined Not to Be Significant of the Draft Environmental Impact Report). The proposed project would result in a water demand of approximately 640,000 gallons per day (gpd). Electricity and natural gas usage are analyzed in this section using GHG emission factors from the CCAR Protocol. These emissions factors are then applied to the respective consumption rates, to calculate annual GHG emissions in metric tons. Mobile source CO_2 emissions were obtained from the URBEMIS2007 emissions inventory model. Mobile source CH_4 and N_2O emissions were obtained using vehicle miles traveled data generated by URBEMIS2007 and emission factors obtained from the CARB's EMFAC2007 model.

California's water infrastructure uses energy to collect, move, and treat water; dispose of wastewater; and power the large pumps that move water throughout the State. California consumers also use energy to heat, cool, and pressurize the water they use in their homes and businesses. Together these water-related energy uses annually account for roughly 20 percent of the State's electricity consumption, one-third of non-power plant natural gas consumption, and about 88 million gallons of diesel fuel consumption. The California Energy Commission has reported that the energy intensity of the water use cycle in Southern California is 12,700 kilowatt-hours per million gallons.

Construction Emissions

Regional Impacts. Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the project site. Fugitive dust emissions would primarily result from grading activity. NO_X emissions would primarily result from the use of construction equipment. During the finishing phase, paving operations and the application of architectural coatings (e.g., paints) and other building materials would release VOC. The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

It is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

Table 4.2-6 shows the maximum estimated daily emissions associated with on-site project-related construction activity. Daily construction emissions would exceed the SCAQMD regional significance threshold for VOC and NO_X. Regional construction emissions would result in a significant impact.

TABLE 4.2-6: DAILY CONSTRUCTION EMISSIONS - UNMITIGATED

	Pounds Per Day					
	VOC	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$ /a/**	**PM_{10} /a/**
Maximum Regional Total /b/	147	182	93	<1	10	21
Regional Significance Threshold	**75**	**100**	**550**	**150**	**55**	**150**
Exceed Threshold?	Yes	Yes	No	No	No	No
Maximum On-Site Total	147	176	87	<1	9	20
Localized Significance Threshold	**-- /c/**	**83**	**673**	**-- /c/**	**4**	**5**
Exceed Threshold?	**--**	Yes	No	**--**	Yes	Yes

/a/ Emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.
/b/ Based on the draft construction schedule, maximum regional construction emissions for VOC, NO_X, CO, SO_X and $PM_{2.5}$ would occur in 2011 during construction of Student Success and Retention Center, Campus Student Center/Bookstore Complex, Classrooms G8 and H8 Modernization, and Math and Science Complex. Maximum regional construction emission for $PM_{2.5}$ would occur in 2014 during construction of Tennis Courts, Football and Soccer Fields.
/c/ SCAQMD has not developed localized significance methodology for VOC or SO_X.
SOURCE: TAHA, 2010.

Localized Impacts. Emissions for the localized construction air quality analysis of $PM_{2.5}$, PM_{10}, CO, and NO_2 were compiled using LST methodology required by the SCAQMD.[9] Localized on-site emissions were calculated using similar methodology to the regional emission calculations. LSTs were developed based upon the size or total area of the emissions source, the ambient air quality in each source receptor area, and the distance to the sensitive receptor. LSTs for CO and NO_2 were derived by using an air quality dispersion model to back-calculate the emissions per day that would cause or contribute to a

[9]The concentrations of SO_2 are not estimated because construction activities would generate a small amount of SO_X emissions. No State standard exists for VOC. As such, concentrations for VOC were not estimated.

violation of any ambient air quality standard for a particular source receptor area. Construction $PM_{2.5}$ and PM_{10} LSTs were derived using a dispersion model to back-calculate the emissions necessary to exceed a concentration equivalent to 50 $\mu g/m^3$ over five hours, which is the SCAQMD Rule 403 control requirement.

Table 4.2-6 shows the estimated daily localized emissions associated with on-site project-related construction activity. Daily construction emissions would exceed the SCAQMD localized significance thresholds for NO_X, $PM_{2.5,}$ and PM_{10}. Localized construction emissions would result in a significant impact at off-site sensitive receptors.

With respect to on-site sensitive receptors, localized construction emissions may impact the Child Development Center. **Table 4.2-7** shows the estimated daily localized emissions associated with construction activity nearest to the Child Development Center.[10] Fugitive dust from grading activity accounts for approximately 80 percent of PM_{10} emissions and approximately 50 percent of $PM_{2.5}$ emissions. Daily localized construction emissions would exceed the SCAQMD localized significance thresholds for $PM_{2.5}$ and PM_{10}. Localized construction emissions would result in a significant impact at the Child Development Center.

TABLE 4.2-7: DAILY LOCALIZED CONSTRUCTION EMISSIONS – ON-SITE SENSITIVE RECEPTORS

	Pounds Per Day					
	VOC	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$ /a/**	**PM_{10} /a/**
Child Development Center						
Maximum On-Site Total	6	49	26	<1	5	14
Localized Significance Threshold /b/	**-- /c/**	83	673	**-- /c/**	4	5
Exceed Threshold?	**--**	No	No	**--**	Yes	Yes

/a/ Emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.
/b/ The analysis assumed a one-acre project site and a 25-meter (82-foot) receptor distance.
/c/ SCAQMD has not developed localized significance methodology for VOC or SO_X.
SOURCE: TAHA, 2010.

Toxic Air Contaminant Impacts. The greatest potential for TAC emissions during construction would be diesel particulate emissions associated with heavy-duty equipment operations. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Given the short-term construction schedule of approximately 36 months, the proposed project would not result in a long-term (i.e., 70 years) source of TAC emissions. No residual emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period (36 out of 840 months), project-related construction TAC emission would result in a less-than-significant impact.

The Child Development Center would experience a localized impact during grading of the athletic areas. The majority of emissions would be related to fugitive dust, which is not a toxic air contaminant comparable to diesel particulate matter. Grading would occur over two to four weeks and a worst-case, conservative estimate of diesel particulate emissions is less than three pounds per day. TAC emissions would result in a less-than-significant impact at the Center based on the limited and short-term exposure.

[10]Construction occurring near to the Child Development Center would consist of the construction the tennis courts, football and soccer fields occurring in 2014.

However, mitigation is recommended to reduce diesel particulate matter exposure at the Child Development Center.

Odor Impacts. Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Proposed project construction would not cause an odor nuisance. Construction odors would result in a less-than-significant impact.

Operational Emissions

Regional Impacts. Long-term project emissions would be generated by mobile sources, area sources, such as natural gas combustion, and the proposed central plant facility. Motor vehicles trips would be the predominate source of long-term project emissions. According to the traffic report, the proposed project would generate a net increase of 4,633 daily vehicle trips. Regional emissions are shown in **Table 4.2-8**. Regional emissions would exceed the SCAQMD significance threshold for NO_X. Operation of the proposed project would result in a significant impact without mitigation.

TABLE 4.2-8: DAILY REGIONAL OPERATIONAL EMISSIONS

	Pounds per Day					
Emission Source	**VOC**	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$**	**PM_{10}**
Stationary Sources	5	33	73	<1	8	10
Mobile Sources	25	38	293	<1	14	73
Area Sources	2	2	3	<1	<1	<1
Total Emissions	32	73	369	<1	22	83
SCAQMD Threshold	**55**	**55**	**550**	**150**	**55**	**150**
Exceed Threshold?	No	Yes	No	No	No	No

SOURCE: TAHA, 2010.

Localized Impacts. Operational activity would generate localized emissions from operation of the proposed project's central plant facility. **Table 4.2-9** shows the estimated daily localized operational emissions associated with the central plant. Daily operational emissions would exceed the SCAQMD localized thresholds for $PM_{2.5}$, and PM_{10}. Localized operational emissions would result in a significant impact without mitigation.

TABLE 4.2-9: DAILY LOCALIZED OPERATIONAL EMISSIONS

	Pounds per Day					
Emission Source	**VOC**	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$**	**PM_{10}**
Total Emissions	5	33	73	<1	8	10
Localized Threshold /a/	**-- /b/**	**83**	**673**	**-- /b/**	**1**	**1**
Exceed Threshold?	No	No	No	No	Yes	Yes

/a/ Assumed a one-acre project site and a 25-meter (82-foot) receptor distance.
/b/ SCAQMD has not developed localized significance methodology for VOC or SO_X at this time.
SOURCE: TAHA, 2010.

CO concentrations in 2015 are expected to be lower than existing conditions due to stringent State and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both without and with the implementation of the proposed project, CO emissions from mobile sources are expected to be much lower due to technological advances in vehicle emissions systems, as well as from normal turnover in the vehicle fleet. Accordingly, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

The State one- and eight-hour CO standards may potentially be exceeded at congested intersections with high traffic volumes. An exceedance of the State CO standards at an intersection is referred to as a CO hotspot. The SCAQMD recommends a CO hotspot evaluation of potential localized CO impacts when V/C ratios are increased by two percent at intersections with a LOS of D or worse. SCAQMD also recommends a CO hotspot evaluation when an intersection decreases in LOS by one level beginning when LOS changes from C to D.

Based on the traffic study, the selected intersections are as follows:

- Ford Boulevard/I-710 Northbound On-Ramp – PM Peak Hour
- Bleakwood Avenue and Floral Drive – AM Peak Hour
- Bleakwood Avenue and Floral Drive – PM Peak Hour
- 1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – AM Peak Hour
- 1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – PM Peak Hour

The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for 2015 conditions. CO concentrations at the analyzed intersections are shown in **Table 4.2-10**. One-hour CO concentrations under project conditions would be approximately 4 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations under project conditions would range from approximately 2.2 to 2.4 ppm. The State one- and eight-hour standards of 20 and 9.0 ppm, respectively, would not be exceeded at the analyzed intersections. Localized CO concentrations would result in a less-than-significant impact.

TABLE 4.2-10: 2009 AND 2015 CARBON MONOXIDE CONCENTRATIONS /a/

	1-hour (parts per million)			8-hour (parts per million)		
Intersection	**Existing (2009)**	**Pre-Project (2015)**	**Project (2015)**	**Existing (2009)**	**Pre-Project (2015)**	**Project (2015)**
Ford Boulevard/I-710 Northbound On-Ramp – PM Peak Hour	4	4	4	3.1	2.2	2.2
Bleakwood Avenue and Floral Drive – AM Peak Hour	4	4	4	3.0	2.2	2.2
Bleakwood Avenue and Floral Drive – PM Peak Hour	4	4	4	3.0	2.2	2.3
1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – AM Peak Hour	5	4	4	3.2	2.3	2.3
1st Street/SR 60 Westbound Off-Ramp and Atlantic Boulevard – PM Peak Hour	5	4	4	3.2	2.4	2.4
State Standard	**20**			**9.0**		

/a/ Existing concentrations include year 2009 one- and eight-hour ambient concentrations of 4 and 2.8 ppm, respectively. No Project and Project concentrations include year 2015 one- and eight-hour ambient concentrations of 3 and 2.1 ppm, respectively.
SOURCE: TAHA, 2010.

The proposed project includes a four-story parking structure which would be built on the south side of the campus (Lot No. 4). This parking structure would be approximately 470,000 square feet in size, and would provide 1,574 parking stalls. A localized CO analysis was completed to identify potential impacts

associated with emissions generated by the proposed parking structure. One and eight-hour CO concentrations would be approximately 3 and 2.1 ppm, respectively. The State one- and eight-hour standards of 20 and 9.0 ppm, respectively, would not be exceeded. Parking activity would result in a less-than-significant air quality impact.

Toxic Air Contaminant Impacts. The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops) and has provided guidance for analyzing mobile source diesel emissions. The proposed project would develop institutional land uses on the project site. The institutional land uses would not be anticipated to generate a substantial number of daily truck trips. The primary source of potential TACs associated with project operations is diesel particulate from delivery trucks (e.g., truck traffic on local streets and on-site truck idling). Typically less than ten heavy-duty trucks (e.g., delivery trucks) would access the project site on a daily basis, and the trucks that do visit the site would not idle on-site for extended periods of time. Based on the limited activity of these TAC sources, the proposed project would not warrant the need for a health risk assessment associated with on-site activities, and potential TAC impacts are expected to be less than significant.

The proposed project would include a math and science complex. The complex would include teaching laboratories with hazardous chemicals and fume hoods. Chemical use associated with teaching is typically low intensity with associated low emission rates. Laboratories and fume hoods would be permitted under the appropriate agencies (e.g., SCAQMD) and would include necessary control measures (e.g., scrubbers). The project would also result in minimal emissions from the use of consumer products (e.g., aerosol sprays). It was expected that the proposed project would not release substantial amounts of TACs, and no significant impact on human health would occur.

Demolition activity would potentially expose human receptors to airborne asbestos. All construction activities in the jurisdiction of the SCAQMD are required to comply with SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). Rule 1403 specifies work practice requirements to limit asbestos emissions from building demolition activities, including the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings. Potential exposure to asbestos would result in a less-than-significant impact.

Odor Impacts. According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The project site would be developed as an educational land use and not a land use that is typically associated with odor complaints. On-site trash receptacles would have the potential to create adverse odors. Trash receptacles would be located and maintained in a manner that promotes odor control and no adverse odor impacts are anticipated from these types of land uses. Trash receptacles would be serviced daily by a contractor and trash would not be stored on the project site. Laboratory activities in the math and science complex may result in noticeable odors. These odors are typically localized and would be contained within the project site. In addition, air quality control measures included during the permitting process would likely assist in controlling odors. Odors would result in a less-than-significant impact.

Air Quality Management Plan Consistency. The 2007 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Growth considered to be consistent with the 2007 AQMP would not interfere with attainment because this growth is included in the projections

utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified in the 2008 RTP, implementation of the 2007 AQMP would not be obstructed by such growth. The Monterey Park General Plan Land Use Element designates the ELAC campus as a public facility. The ELAC campus is zoned R-1 (single-family residential). The Zoning Code does not contain an institutional designation. Institutional uses are permitted in residential zones with a conditional use permit. In December 2004, when an addendum for the 2004 Facilities Master Plan Update was approved, the Board of Trustees adopted a zoning exemption for the Facilities Master Plan to eliminate the zoning inconsistency of the ELAC campus. The proposed project would be consistent with the growth assumptions utilized in the AQMP, and the proposed project would have a less-than-significant impact related to consistency with the 2007 AQMP.

Global Climate Change Impacts. Generally, an individual project cannot generate enough GHG emissions to influence global climate change because it is the increased accumulation of GHGs which may result in global climate change. However, an individual project may contribute an incremental amount of GHG emissions that could combine with other emission sources to create concentrations of GHG that could influence climate change. For most projects, the main contribution of GHG emissions is from motor vehicles, but how much of those emissions are "new" is uncertain. New projects do not create new drivers, and therefore, do not create a new mobile source of emissions. Rather, new projects only redistribute the existing traffic patterns. Larger projects will certainly affect a larger geographic area, but again, would not necessarily cause the creation of new drivers. Some mixed-use, urban infill, and mass transit projects could actually reduce the number of vehicle miles traveled.

Worldwide population growth and the consequent use of energy is the primary reason for GHG emission increases. The market demand for goods and services and the use of land is directly linked to population changes and economic development trends within large geographies (e.g., regional, national, worldwide). Individual site-specific projects have a negligible effect on these macro population-driven and growth demand factors. Whether an individual site-specific project is constructed or not has little effect on GHG emissions. This is because the demand for goods and services in question would be provided in some other location to satisfy the demands of a growing population if not provided on the project site. The only exception to this basic relationship between population growth, development, energy consumption and GHG emissions would occur if the site-specific project (1) embodied features that were not typical of urban environment or developing communities, and (2) generated a disproportionate amount of vehicle miles of travel or had other unique and disproportionately high fuel consumption characteristics. The proposed project does not fall within these exceptions.

LACCD has developed a sustainability Program to reduce climate change impacts. The sustainability program includes the following elements:

- Leadership in Energy and Environment Design (LEED) certification for buildings funded with at least 50 percent bond dollars;
- Retrofitting buildings with energy saving elements for maximum efficiency;
- Installing innovative features including low-flush toilets and waterless urinals, which reduce water consumption and wastewater;
- Installing artificial turf to reduce their dependence on water to maintain the fields;
- Using innovative landscaping designs such as drought-tolerant and native plants to reduce water consumption to levels appropriate for the arid Southern California climate;
- Spearheading efforts to encourage vendors/companies into producing sustainable products;
- Using newly-established environmentally-friendly techniques, such as mixing fly-ash with concrete, during the construction process; and
- A Renewable Energy Plan that includes the installation of enough photovoltaic (solar) panels, wind turbines and geo-thermal energy on site at each of its nine colleges to produce enough electricity to meet all electricity needs.

The following GHG emissions are conservative estimates based on URBEMIS2007 and the California Climate Action Registry's *General Reporting Protocol*. LACCD sustainability program would reduce emissions. However, the emission reductions are difficult to quantify and are not included in the following analysis. A worst-case analysis indicated that construction activity would generate 1,990 tons of GHG emissions over the 36-month period. Operational GHG emissions are shown in **Table 4.2-11**. GHG emissions were calculated from mobile sources, natural gas usage, and electricity generation. A worst-case operational analysis indicated that the proposed project would result in CO_2e emissions of 29,296 tons per year, which represents 0.00006 percent of Statewide emissions.

TABLE 4.2-11: ANNUAL GREENHOUSE GAS EMISSIONS

Source	Carbon Dioxide Equivalent (Tons per Year)
Proposed Project Emissions	29,296
2004 California GHG Emissions Inventory /a/	**528,820,000 /b/**

/a/ CARB, DRAFT California Greenhouse Gas Inventory (Millions of Metric Tonnes of CO2 Equivalent) – By IPCC Category, November 19, 2007.
/b/ Metric tonnes provided by the CARB were converted into tons to allow for the appropriate comparison.
SOURCE: TAHA, 2010.

The State has mandated a goal of reducing State-wide emissions to 1990 levels by 2020, even though State-wide population and commerce is predicted to grow substantially. To help meet this goal the California Climate Action Team recommended strategies that could be implemented by lead agencies to reduce GHG emissions. The proposed project would comply with these strategies which include increasing building energy efficiency and reducing HFC use in air conditioning systems. The implementation of the proposed project would not result in an unplanned level of development and does not represent a substantial new source of GHG emissions. In addition, the Vocational/General Classroom Building, the Student Success and Retention Center, and the Campus Student Center/Bookstore Complex would all be LEED-certified resulting in increased energy efficiency and a reduction in associated GHG emissions compared to standard development. Based on the above analysis, global climate change and GHG emissions would result in a less-than-significant impact.

MITIGATION MEASURES

Mitigation measures are numbered sequentially following previously identified mitigation measures prescribed in the Final EIR for the 1998 Facilities Master Plan and the Addendum for the 2004 Facilities Master Plan Update.

Construction

AQ13 Water or a stabilizing agent shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.

AQ14 The construction contractor shall utilize at least one or more of the following measures at each vehicle egress from the project site to a paved public road in order to effectively reduce the migration of dust and dirt offsite:

- Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long;
- Pave the surface extending at least 100 feet and at least 20 feet wide;
- Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; or

- Install a wheel washing system to remove bulk material from tires and vehicle undercarriages.

AQ15 All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

AQ16 Construction activity on unpaved surfaces shall be suspended when wind speed exceed 25 miles per hour (such as instantaneous gusts).

AQ17 Heavy-duty equipment operations shall be turned off while idling longer than five minutes. Contractor shall use electric or natural gas powered vehicles/equipment where practical.

AQ18 Ground cover in disturbed areas shall be replaced as quickly as possible.

AQ19 A construction relations officer shall be appointed to act as a community liaison concerning on-site construction activity including resolution of issues related to PM_{10} generation.

AQ20 A non-toxic soil stabilizers shall be applied to all inactive construction areas according to manufacturers' specifications (previously graded areas inactive for ten days or more).

AQ21 Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.

AQ22 Streets shall be swept at the end of the day if visible soil is carried onto adjacent public paved roads. If feasible, water sweepers with reclaimed water shall be used.

AQ23 Contractors shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications.

AQ24 Contractors shall utilize electricity from the electrical grid rather than temporary diesel or gasoline generators, as feasible.

AQ25 Heavy-duty trucks shall be prohibited from idling in excess of five minutes, both on- and off-site.

AQ26 All diesel powered construction equipment in use shall require control equipment that meets at a minimum Tier III emissions requirements. In the event Tier III equipment is not available, diesel powered construction equipment in use shall require emissions control equipment with a minimum of Tier II diesel standards.

AQ27 The construction contractor shall coordinate with Child Development Center staff to ensure that children present at the Center would be limited to indoor activities during periods when diesel equipment activity is operated at the tennis court, football and soccer field construction site.

AQ28 Architectural coatings shall be purchased from a super-compliant architectural coating manufacturer as identified by the SCAQMD (http://www.aqmd.gov/prdas/brochures/ Super-Compliant_AIM.pdf).

AQ29 Spray equipment with high transfer efficiency, such as the electrostatic spray gun or manual coatings application (e.g., paint brush and hand roller), shall be used to reduce VOC emissions, to the maximum extent feasible.

Operations

AQ30 Staff and students shall be provided with information on public transportation options near East Los Angeles College.

AQ31 Preferred parking shall be established for alternatively-fueled vehicles.

AQ32 Charging stations shall be supplied for electric vehicles.

AQ33 A ride sharing program shall be implemented to increase carpooling opportunities.

LEVEL OF IMPACT AFTER MITIGATION

Construction

Implementation of Mitigation Measures **AQ13** through **AQ22** would reduce $PM_{2.5}$ and PM_{10} emissions during construction of the project. Implementation of Mitigation Measure **AQ23** would reduce engine emissions by approximately five percent. Implementation of Mitigation Measures **AQ24** through **AQ26**, while difficult to quantify, would also reduce construction emissions. Implementation of Mitigation Measure **AQ27** would minimize air pollution exposure at the Child Development Center. Mitigation Measures **AQ28** and **AQ29** would reduce VOC emissions during the architectural coating activity by approximately 96 percent to a less-than-significant level. As demonstrated in **Table 4.2-12**, mitigated construction regional emissions would continue to exceed the SCAQMD regional threshold for NO_X. Regional construction emissions would result in an unavoidable, significant air quality impact.

TABLE 4.2-12: DAILY CONSTRUCTION EMISSIONS – MITIGATED

	Pounds Per Day					
	VOC	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$ /a/**	**PM_{10} /a/**
Maximum Regional Total /b/	21	164	85	<1	9	21
Regional Significance Threshold	**75**	**100**	**550**	**150**	**55**	**150**
Exceed Threshold?	No	Yes	No	No	No	No
Maximum On-Site Total /b/	20	158	79	<1	8	20
Localized Significance Threshold	**-- /c/**	**83**	**673**	**-- /c/**	**4**	**5**
Exceed Threshold?	**--**	Yes	No	**--**	Yes	Yes

/a/ Emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.
/b/ Based on the draft construction schedule, maximum construction emissions for VOC, NO_X, CO, SO_X and $PM_{2.5}$ would occur in 2011 during construction of Student Success and Retention Center, Campus Student Center/Bookstore Complex, Classrooms G8 and H8 Modernization, and Math and Science Complex. Maximum construction emission for $PM_{2.5}$ would occur in 2014 during construction of Tennis Courts, Football and Soccer Fields.
/c/ SCAQMD has not developed localized significance methodology for VOC or SO_X.
SOURCE: TAHA, 2010.

Table 4.2-12 shows the estimated daily localized emissions associated after mitigation. Daily construction emissions would continue to exceed the SCAQMD localized significance thresholds for NO_X, $PM_{2.5,}$ and PM_{10} emissions even after mitigation. Mitigated localized emissions would also exceed the significance thresholds at the Child Development Center. Localized construction emissions would result in an unavoidable significant air quality impact.

Operation

Although difficult to quantify, Mitigation Measures **AQ30** through **AQ33** would reduce operational emissions. Approximately 80 percent of VOC and CO emissions would result from mobile sources. A large portion (45%) of operational NO_X emissions would be generated by the proposed project's central plant. The central plant facility is a high-efficiency heating, cooling and electricity generating station for the campus. The facility includes design features meant to reduce emissions, such as low NO_X burners for the boilers and ultra-low emission micro turbines. Its operation would help reduce campus demands on the existing energy grid. While difficult to quantify, operation of the central plant would help reduce overall regional operational emissions, as maintenance on much larger and more expensive generators and energy transfer lines would not be necessary to power the proposed project. In addition, the central plant would provide heating and cooling for campus buildings, improving the overall energy efficiency of the proposed project. Nonetheless, operational emissions would still exceed the SCAQMD regional significance threshold for NO_X, and localized significance thresholds for $PM_{2.5}$ and PM_{10}. Operation of the proposed project would result in an unavoidable significant air quality impact.

4.3 CULTURAL RESOURCES

This section summarizes the findings of a Cultural Resources Assessment prepared by BCR Consulting (Appendix C). The report addresses the potential impacts on cultural resources, including historical and Native American resources that could occur from the proposed project.

ENVIRONMENTAL SETTING

Historic Resources

Pre-1965 Buildings. Structures that are at least 45 years old may be eligible for status as an historic resource by virtue of their age. A field survey of the project site revealed that there are 10 structures that are at least 45 years old, buildings E3, E5, F5 and G5 were constructed in 1958, buildings H5, H6, H7 and H8 were constructed in 1961, and buildings G6 and G8 were constructed in 1963. **Figure 4.3-1** shows the location of these buildings. Building F5 is a two-story, concrete building with a flat roof, and the remaining nine buildings are single-story, stucco buildings with flat roofs.

Native American Resources

The Tongva Native Americans inhabited the land that is now the City of Monterey Park prior to the immigration of Spanish settlers. The Tongva established large, permanent villages in the fertile lowlands along rivers and streams and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean.

The Native American Heritage Commission (NAHC) was consulted as a means of determining the presence of Native American resources on the project site. A Sacred Lands File search was conducted by the Commission, and it did not indicate the presence of Native American cultural resources within one-half mile of the project area.[1]

PREVIOUSLY DISCLOSED IMPACTS

The Final EIR for the 1998 Facilities Master Plan concluded that no unavoidable significant impacts would occur with regard to cultural resources. No historical or prehistoric archaeological sites were located within a one-half-mile radius of the campus. No State or National historic places or points of interest were located within the area, and a search conducted by the California Native American Heritage Commission failed to indicate the presence of any Native American cultural resources in the immediate project area. In addition, no buildings of historic value were identified.

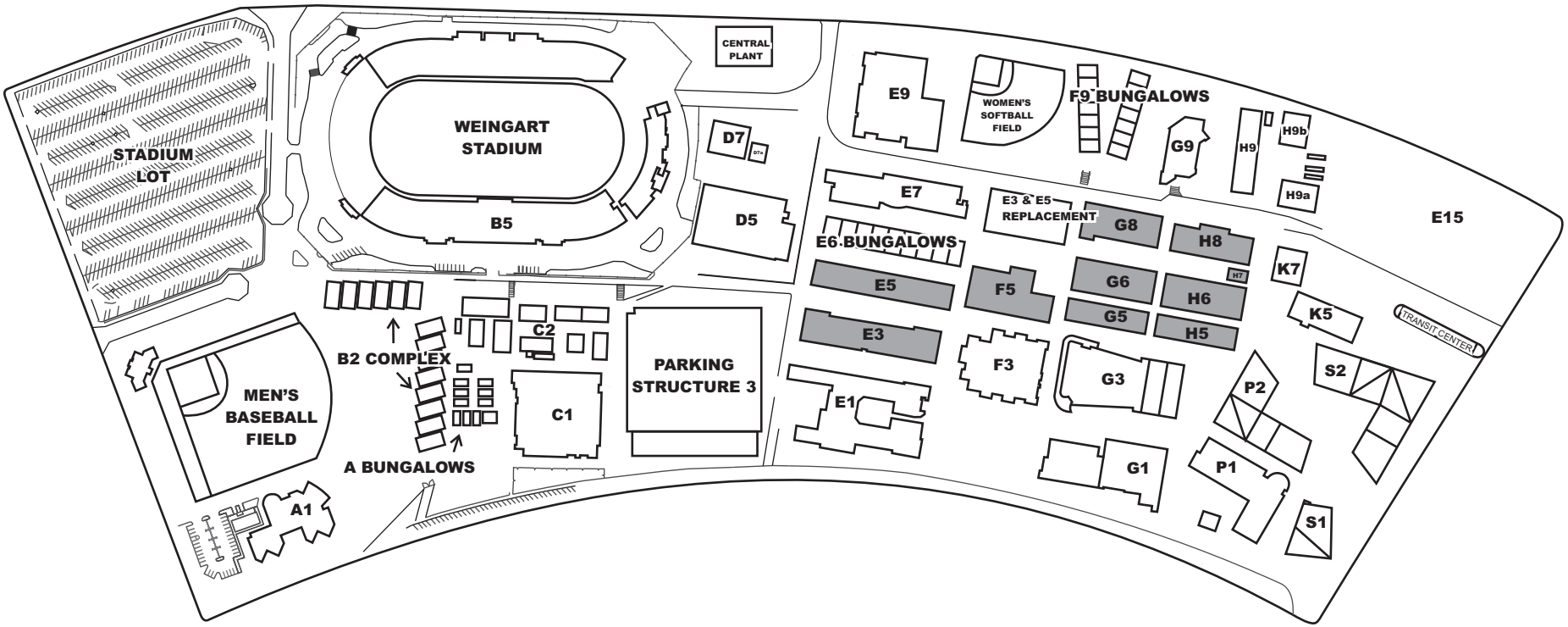
The Addendum for the 2004 Facilities Master Plan Update concluded that no unavoidable significant impacts would occur with regard to cultural resources since no cultural resources exist on-site.

THRESHOLDS OF SIGNIFICANCE

The proposed project would have a significant impact on cultural resources if the project would:

- Disturb any human remains, including those interred outside of formal cemeteries; and/or
- Cause a substantial change in the significance of a historical resource.

[1]BCR Consulting, *Cultural Resources Assessment Historic Buildings at East Los Angeles College, Monterey Park, Los Angeles County, California*, December 11, 2009.



LEGEND: Pre-1965 Buildings

A1	Child Development Center	**E7**	Technology Center	**G6**	Physics	**K5**	Classrooms
B5	Weingart Stadium/Sheriffs Office	**E9**	Women's Gym	**G8**	Classrooms	**K7**	Classrooms
C1	Men's Gym/Fitness Center	**E15**	Parking Lot 4	**G9**	Nursing	**P1**	Auto Technology
C2	Classrooms	**F3**	Bailey Library	**H5**	Earth Science	**P2**	Performing Arts Complex
D5	Swim Stadium	**F5**	English & Math Lab	**H6**	Life Science	**S1**	Vincent Price Art Gallery
D7	Faculty Office	**G1**	Administration	**H7**	Lecture Hal	**S2**	Fine Arts Complex
E1	Student Services Center	**G3**	Ingalls Auditorium	**H8**	Chemistry		
E3/E5	Classrooms	**G5**	Home Economics	**H9**	Plant Facilities		

SOURCE: 2009 East Los Angeles College Facilities Master Plan Update

FIGURE 4.3-1

PRE-1965 BUILDINGS

A resource is considered to be historically significant if the resource meets one or more of the California Register of Historical Resources criteria for eligibility, is listed in a local historic register, or is deemed significant in an historical resource survey. According to the California Register eligibility criteria, a significant historical resource is one which:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; and/or
- Has yielded, or may be likely to yield, information in prehistory or history.

IMPACTS

Historic Resources

Pre-1965 Buildings. The Cultural Resources Report revealed that there are 10 buildings at least 45 years old. An architectural field survey was conducted to evaluate the historic significance of these buildings. The field survey concluded that the architectural themes for each of the buildings are typical of Post-World War II public school design, which is primarily based on a one-story rectangular plan with flat or gently-pitched roofs, open corridors between buildings and rows of horizontally oriented windows. The buildings are a result of growth common throughout the region during the period, as well as continuing growth of the campus, which continues to this day and has not adhered to any historical themes as an integrated resource. As such, the buildings are not associated with any events significant to local, State or national history. The buildings were not found to be associated with any individuals who have been notable in local, State or national history. The buildings were designed and built using a ubiquitous and utilitarian mid-century modern style commonly utilized at public educational institutions. Therefore, they do not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important person. Additionally, an inspection of the buildings concluded that they are not likely to yield information important to prehistory or history. None of the 10 buildings are considered eligible for the California Register. Therefore, the proposed project would not result in a significant impact related to cultural resources.

Native American Resources

According to the NAHC, no Native American cultural resources are present in the immediate project area. Although the absence of site-specific information does not preclude the existence of buried cultural resources in the project area, the site is an area that is fully developed and has been previously graded. It is unlikely that Native American resources would be encountered during ground-disturbing activities, such as grading, grubbing, and vegetation clearing. Therefore, the proposed project would not result in a significant impact related to Native American resources.

MITIGATION MEASURES

No potential significant impacts have been identified, therefore, no mitigation measures are required.

LEVEL OF IMPACT AFTER MITIGATION

Impacts associated with cultural resources are considered less-than-significant without mitigation.

4.4 LAND USE AND PLANNING

This section examines the proposed project to determine whether it is consistent with local and/or regional land use plans and policies, and analyzes potential conflicts between existing and proposed land uses on-site and in surrounding areas. Local policies for land use and development regulate the types of uses allowed, as well as the intensity of development permitted on private property. As new development results in changes to land use patterns, the character of the area can be affected and physical impacts to the environment become a concern. The proposed project has been evaluated for consistency with the regional and local land use plans, including the City of Monterey Park General Plan and Zoning Ordinance.

ENVIRONMENTAL SETTING

The East Los Angeles College (ELAC) campus encompasses approximately 82 acres and is located in the City of Monterey Park, approximately five miles east of Downtown Los Angeles. The ELAC campus is bounded by Avenida Cesar Chavez to the south, Collegian Avenue to the east, Bleakwood Avenue to the west, and Floral Drive to the north. The major streets serving the campus are Avenida Cesar Chavez in the east-west direction and Atlantic Boulevard and Eastern and Garfield Avenues in the north-south direction. In addition, the Los Angeles Metropolitan Transportation Authority (Metro) Gold Line Atlantic Station, located one-half mile to the south of the ELAC campus, serves the area.

Table 4.4-1 shows the land use distribution for the City of Monterey Park. Residential uses account for the majority of land uses within the City (61 percent); commercial uses comprise 17 percent of land uses in the City; open Space has the third largest percentage of land use within the City at 11 percent; public facility uses comprise 7 percent of land uses; and employment/technology uses comprise 4 percent of the land uses within the City.

TABLE 4.4-1: LAND USE DISTRIBUTION FOR MONTEREY PARK

Type of Land Use/a/	Acreage	Percentage of Total Area
Residential		
Single-Family	1,886	45
Multi-Family	682	16
Commercial	552	17
Employment/Technology	171	4
Public Facilities	279	7
Open Space	439	11
Total	4,177	100

/a/ 1,078 acres of streets and right-of-way were omitted from the Land Uses
SOURCE: City of Monterey Park Land Use Plan, 1990.

The ELAC campus is located in a fully developed predominantly residential urban environment. The surrounding neighborhood consists primarily of residential land uses with commercial/retail uses along Atlantic Boulevard. Land uses to the immediate north of the ELAC campus consist primarily of multi-family residential units along College View Drive with single-family residences beyond. Land uses adjacent to the west of the ELAC campus consist of single-family residences. An elementary school and large multi-family residential development begins three blocks west of the campus. Land uses adjacent to the east of the ELAC campus along the Atlantic Boulevard frontage consist of seven large commercial/retail centers. Single-family residences extend to the east beyond the commercial frontage. Land uses to the immediate south of the ELAC campus consist primarily of two to three blocks of single- and multi-family residential units with the State Route 60 beyond.

ELAC is currently operating as a two-year community college. The college opened in 1945 and currently serves more than 20,000 students[1]. ELAC buildings are generally one- and two-story structures. Many of the buildings are more than 40 years old and require maintenance. Many of the buildings on the campus are classified as temporary structures. The campus academic area, located on the eastern side of the campus, includes the Dr. Helen Miller Bailey Library, classroom buildings, the Ingalls Auditorium, music buildings, the recently constructed Technology Center, the Performing and Fine Arts Center, the Administration building and Student Services Center. Temporary buildings are located within the academic area and are primarily used as classroom space. The Child Development Center is located at the southwest border of the campus on Bleakwood Avenue and Avenida Cesar Chavez.

Athletic and recreational facilities, which include the Swim Stadium, the Women's and Men's Gymnasium, and the Weingart Stadium, are located on the western and northern-central perimeter of the campus. In addition, the men's baseball field is located on the western side of the campus and is currently being used for surface parking. The recently constructed women's softball field is located on the northern-central perimeter of the campus, along Floral Drive. The campus police offices are located on the western side of campus within the Weingart Stadium. Two temporary buildings serve as storage for the Plant Facilities. The campus currently provides 3,639 parking spaces in five large lots, five medium-sized lots, and curbside parking.

Land Use Plans

Regional

SCAG's Regional Comprehensive Plan and Guide and Regional Transportation Plan. The ELAC campus is located within the Southern California Association of Governments (SCAG) region. SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) and Regional Transportation Plan (RTP) to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated by the year 2015 and beyond. At the regional level, the goals, objectives, and policies in the RCPG and RTP are used for measuring consistency with adopted plan. However, city and county governments have the authority and responsibility for land use and other critical planning decisions.

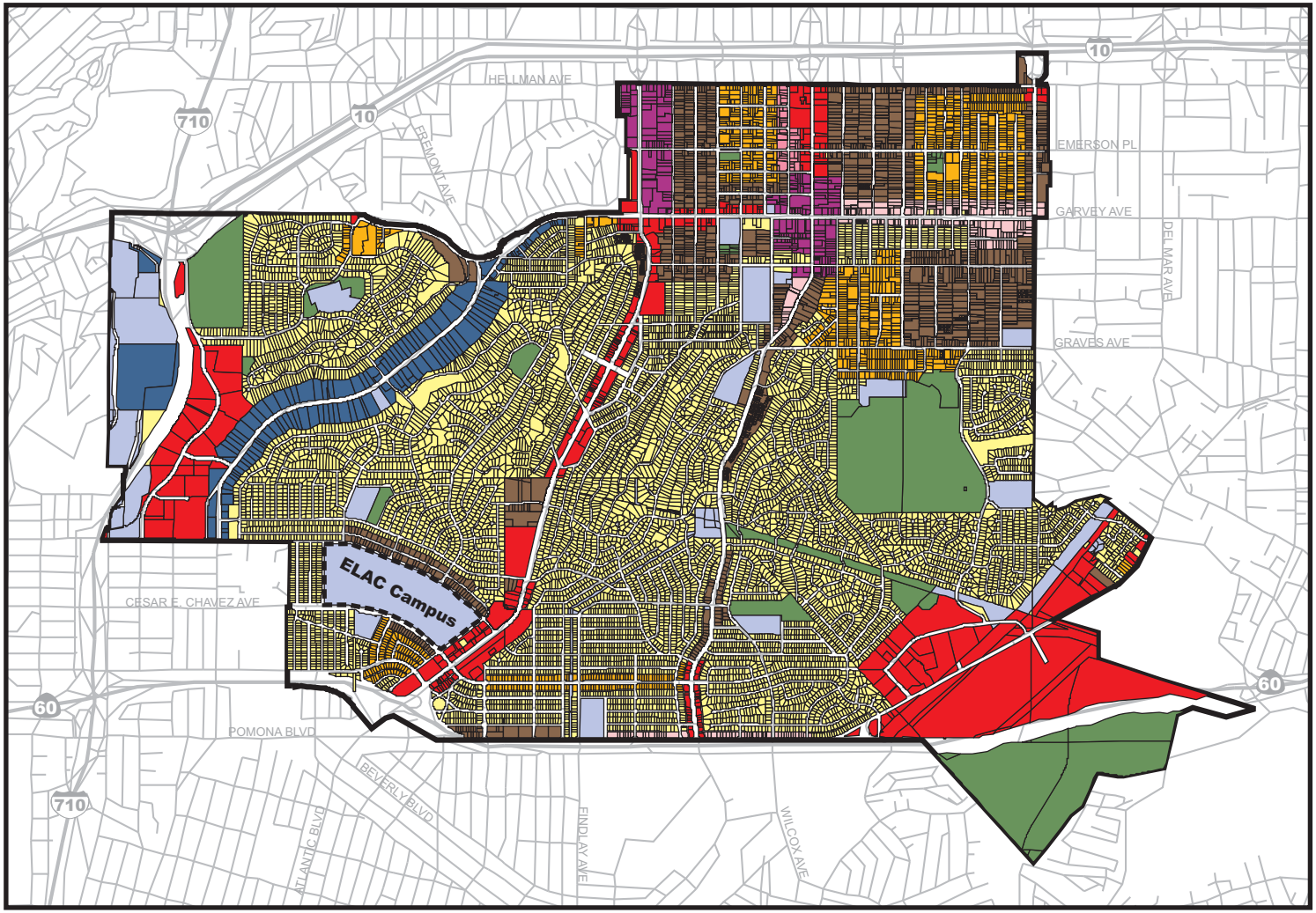
Local

City of Monterey Park General Plan. The ELAC campus lies within the adopted Monterey Park General Plan area. The most recent General Plan was adopted in 2001. It aims to set forth the framework to improve the City's quality of life and economic base through effective land use, housing, circulation and environmental management. The Land Use Element of the General Plan, adopted in November of 2001, sets forth the City's policies for guiding local development and growth, which together with the zoning code, shapes the land distribution.

City of Monterey Park Zoning Code. Title 21 of the City of Monterey Park Municipal Code contains the zoning designations and regulations for the City of Monterey Park. The purpose of the zoning code is to classify, designate, regulate and restrict the use of buildings, land and structures in order to permit the optimum use of land within the city; to serve the needs of residential, commercial and industrial developments within the city.

Figures 4.4-1 and **4.4-2** show the land uses and zoning designations for the ELAC campus, and surrounding City of Monterey Park.

[1]Student enrollment is calculated as *unduplicated headcount*, representing the actual number of students attending the college.



LEGEND:

- City of Monterey Park
- Project Site
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use I
- Mixed Use II
- Mixed Use III
- Employment / Technology
- Commercial
- Public Facilities
- Open Space

SOURCE: Monterey Park General Plan, 2001

APPROX. SCALE
0 1,650 3,300 FEET

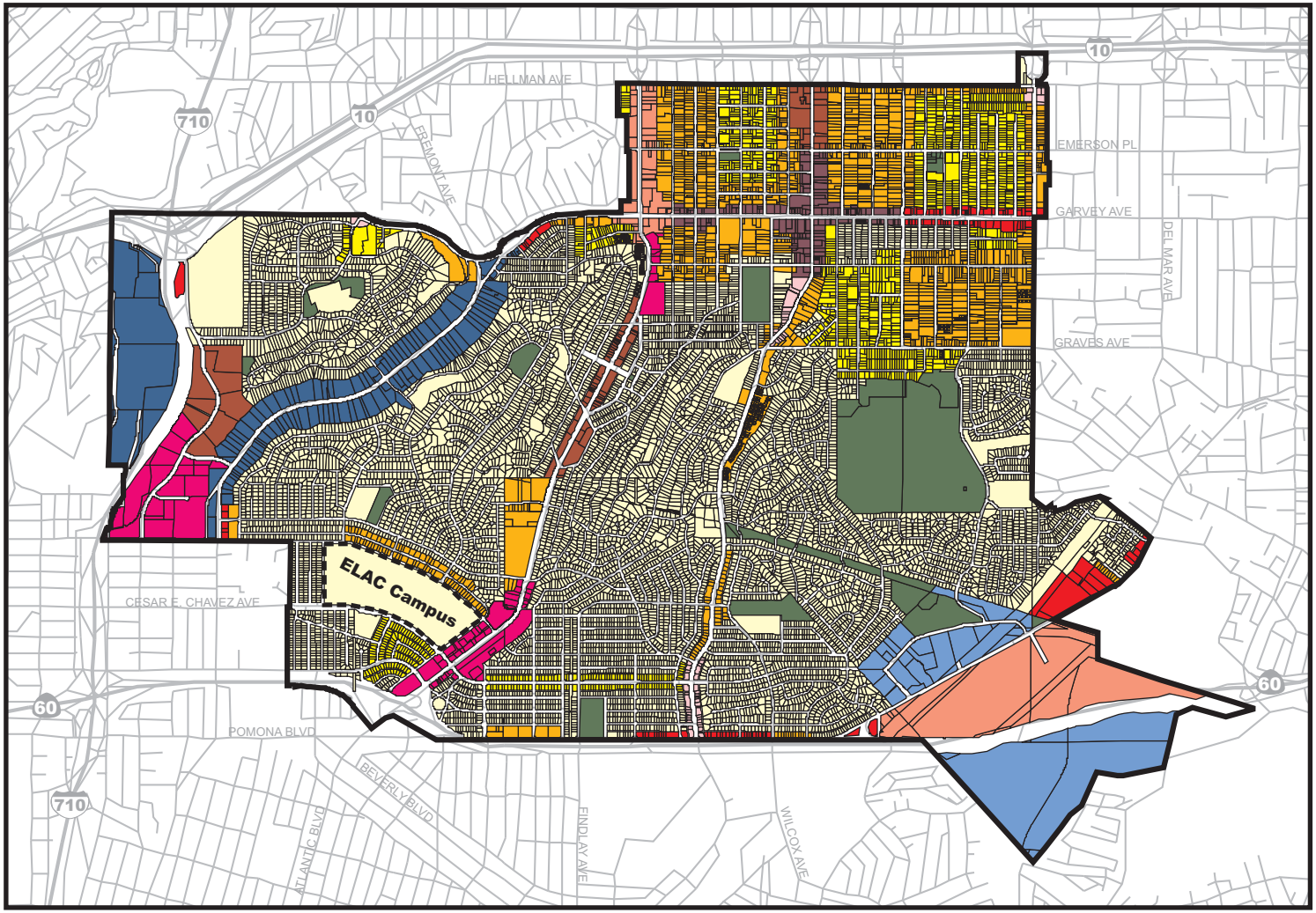
N

East Los Angeles College Facilities Master Plan Update
Supplemental Environmental Impact Report
LOS ANGELES COMMUNITY COLLEGE DISTRICT

taha 2009-037

FIGURE 4.4-1

GENERAL PLAN LAND USE



LEGEND:

City of Monterey Park

Project Site

R-1, Single-Family Residential

R-2, Medium-Multiple Residential

R-3, High-Density Residential

N-S, Neighborhood Shopping

S-C, Shopping Center

R-S, Regional Specialty Center

C-B, Central Business Commercial

C-P, Commercial/Professional

C-S, Commercial Services

O-P, Office Professional

M, Manufacturing

O-S, Open Space

APPROX. SCALE

0 1,650 3,300 FEET

N

SOURCE: Monterey Park General Plan, 2001

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taha 2009-037

East Los Angeles College Facilities Master Plan Update
Supplemental Environmental Impact Report

LOS ANGELES COMMUNITY COLLEGE DISTRICT

FIGURE 4.4-2

ZONING

Under State law, buildings and facilities on Los Angeles Community College District (LACCD) campuses are generally subject to zoning limitations imposed by the local jurisdiction. However, by two-thirds vote of the LACCD Board of Trustees, the LACCD may elect to exempt facilities from local zoning regulations.

Land Use Designations. The Monterey Park General Plan Land Use Element designates the ELAC campus as a public facility. The adjacent land uses to the north as high-density residential, the adjacent land uses to the west are designated low-density residential, the adjacent land use to the south are designated low-, medium- and high-density residential, and the adjacent land uses to the east are designated as commercial.

Zoning Designations. The ELAC campus is zoned R-1 (single-family residential). The Zoning Code does not contain an institutional or educational designation. Institutional uses are permitted in residential zones with a conditional use permit. Height restrictions for the R-1 zone are 30 feet in height. In addition, Section 21.20.090 of the Zoning Code allows for buildings or structures on the ELAC campus to be built to a height of 50 feet or four stories, upon approval of a conditional use permit. On December 15, 2004, when the Addendum for the 2004 Facilities Master Plan Update was approved, the LACCD Board of Trustees adopted a zoning exemption for the Facilities Master Plan to eliminate the zoning inconsistency of the ELAC campus.[2] The adjacent land uses to the north are zoned R-3 (high-density residential), land uses to the west are zoned R-1, land uses to the south are zoned R-1 and R-2 (medium-multiple residential) and land uses to the east are S-C (shopping center).

Previously Disclosed Impacts

The Final EIR for the 1998 Facilities Master Plan concluded that no significant impacts would occur with regard to land use and planning and that no mitigation was required.

The Addendum for the 2004 Facilities Master Plan Update (2004 FMPU) concluded that mitigation was necessary to resolve the building height inconsistency of the new clock tower identified under the FMPU with the Monterey Park zoning Ordinance. The mitigation measure found that the zoning inconsistency would be resolved with a LACCD Board-approved zoning exemption allowed under State Government Code 53094. With implementation of Mitigation A-LU1, no significant impacts would occur with regard to land use.

THRESHOLDS OF SIGNIFICANCE

The proposed project would have a significant impact related to land use and planning if the project would:

- Physically divides an established community;
- Conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflicts with any applicable Habitat Conservation Plan or Natural Community Conservation Plan.

[2]Los Angeles Community College District Board of Trustees, *Board Meeting Minutes*, December 15, 2004.

IMPACTS

Division of an Established Community

The ELAC campus has been an established major land use in the community since 1945. The proposed project would construct five new buildings, three campus marquee signs and a parking structure. The proposed project would not create new barriers or restrict pedestrian or vehicular circulation. These campus improvements would occur within the boundaries of the ELAC campus and would not physically divide the community. Therefore, no impact is anticipated related to the division of an established community from the proposed project.

Adopted Plans and Policies

The proposed project would be consistent with all applicable SCAG policies, as shown below in **Table 4.4-2**. Educational facilities are typically located in residential areas. The City of Monterey Park General Plan states that many schools are located in low density residential areas (as is ELAC). The ELAC campus does not conflict with the policies or goals of the General Plan Land Use Element. There is no indication that the proposed expansion and renovation of the ELAC campus would result in conflict as the proposed project does not involve a change in existing use. The college is updating its Facilities Master Plan with planned improvements that are consistent with the existing uses on campus. The proposed project does not include new uses that do not currently exist on the campus. Therefore, the planned projects in the 2009 Facilities Master Plan Update are compatible with the surrounding land uses and do not result in land use impacts.

While the site is zoned R-1 (single-family residential), the campus has operated as an institutional use since 1945. Institutional uses are permitted in residential zones with a conditional use permit.

In the R-1 Zone, illuminated signs are not permitted[3] and building heights should not exceed 30 feet in height. However, Section 21.20.090 of the Zoning Code allows for buildings or structures on the ELAC campus to be built to a height of 50 feet or four stories with a conditional use permit. The proposed project includes three illuminated marquee signs which would utilize Light-Emitting Diode (LED) display boards, and the proposed Student Success and Retention Center would exceed four stories in height. The LACCD has specific guidelines, B25, to ensure zoning consistency. The guidelines require that each college be required to comply with applicable zoning laws for the jurisdiction in which it is located. However, the guidelines also permit the Board of Trustees to take an exemption to remedy an inconsistency. The district guidelines use the authority granted in Section 53094 of the Government Code, which states that the governing board of a school district, by a vote of two-thirds of its members, may render a city or county zoning ordinance inapplicable to a proposed use of property by the school district. A zoning exemption was passed by the LACCD Board of Trustees on December 15, 2004 for the Facilities Master Plan. No additional action would be required for the 2009 Facilities Master Plan.

The project site is not within the jurisdiction of Habitat Conservation Plan or Natural Community Conservation Plan. Therefore the proposed project would be consistent with the applicable regional and local plans and policies, and no impact is anticipated.

[3]Monterey Park Municipal Code Section 21.50.100, Permitted Residential Signs, Sign Regulations.

TABLE 4.4-2: COMPARISON OF THE PROPOSED PROJECT TO SCAG REGIONAL POLICIES		
Policy Type and Goals	**Finding**	**Discussion**
REGIONAL COMPREHENSIVE PLAN AND GUIDE		
GROWTH MANAGEMENT CHAPTER		
3.01 The population, housing and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies shall be used by SCAG in all phases of implementation and review.	Not Applicable.	The proposed project would add additional students to the surrounding community and would not require SCAG forecasts to be used in land use planning for this project.
3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.	Consistent with this policy.	Adequate public facilities, transportation, and utilities infrastructure are in place for the proposed project and would not affect regional growth.
GROWTH MANAGEMENT POLICIES TO IMPROVE THE REGIONAL STANDARD OF LIVING		
3.05 Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.	Consistent with this policy.	The project would make better use of existing facilities by utilizing existing vacant space and upgrading infrastructure.
3.09 Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.	Consistent with this policy.	The project is an urban infill project and would utilize existing facilities and transportation infrastructure.
3.10 Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.	Consistent with this policy.	The proposed project is an urban infill project and would not affect the economic vitality and competitiveness.
GROWTH MANAGEMENT POLICIES RELATED TO IMPROVE THE REGIONAL QUALITY OF LIFE		
3.12 Encourage existing or proposed local jurisdiction's programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.	Consistent with this policy.	The proposed project is an urban infill project and would not alter the existing land use.
3.13 Encourage local jurisdiction's plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.	Consistent with this policy.	The proposed project is consistent with the City of Monterey Park General Plan to use the site for educational use.
3.14 Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.	Consistent with this policy.	The existing campus is an activity center for the community. The expansion of the campus would increase the density and development of the college and surrounding uses.
3.15 Support local jurisdictions strategies to establish mixed-use clusters and other transit-oriented developments around transit stations and along transit corridors.	Consistent with this policy.	The proposed project is located near the transit-oriented Metro Gold Line, State Route 60 and has four bus lines which allow a connection to the nearest Metro Gold Line Station at Atlantic Boulevard enabling regional connectivity.
3.16 Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment.	Consistent with this policy.	The proposed project would maximize the use of existing space, infrastructure, and public facilities and through infill.
3.17 Support and encourage settlement patterns, which contain a range of urban densities.	Not Applicable.	The proposed development is an urban infill project and would not induce settlement patterns.
3.18 Encourage planned development in locations least likely to cause environmental impact.	Not Applicable.	The proposed development is an infill project directed at improving educational service to the community. Since the site is located in an urbanized area, no natural areas would be affected.

TABLE 4.4-2: COMPARISON OF THE PROPOSED PROJECT TO SCAG REGIONAL POLICIES		
Policy Type and Goals	**Finding**	**Discussion**
3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.	Not Applicable.	The project site is located in an urbanized area which is devoid of such vital resources. Hence, no vital resources would be directly or indirectly affected by the proposed project.
3.21 Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.	Consistent with this policy.	The project site has undergone prior environmental review that included a complete investigation into the potential presence of cultural and archaeological resources, and developed provisions to avoid any potential impacts.
3.22 Discourage development, or encourage the use of special design requirements in areas with steep slopes, high fire, flood, and seismic hazards.	Consistent with this policy.	The proposed development will be made Field Act compliant to safeguard against the threat to seismic hazards. The project site is not susceptible to high fire, flood, or slope hazards.
3.23 Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.	Consistent with this policy.	This Supplemental EIR contains mitigation measures to reduce noise. Biological and ecological resources would not be affected by the proposed project. The proposed project would be built in accordance with all current earthquake standards and emergency plans would be submitted for approval to applicable agencies prior to operations.
GROWTH MANAGEMENT POLICIES RELATED TO SOCIAL, POLITICAL, AND CULTURAL EQUITY		
3.24 Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.	Not Applicable.	The proposed project would not supply housing.
3.27 Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.	Consistent with this policy.	The proposed project would enhance educational facilities, provide additional parking facilities, and improve safety and reliability through upgraded infrastructure. All of these facilities would be of benefit to the communities they serve.
REGIONAL TRANSPORTATION PLAN		
4.01 Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.	Not Applicable	Transportation investments associated with the proposed project would be based on surrounding traffic conditions.
4.02 Transportation Investments shall mitigate environmental impacts to an acceptable level.	Consistent with this policy.	Transportation mitigation measures are included in this EIR to mitigate environmental impacts to acceptable levels. (see Section 4.6)
4.04 Transportation Control Measures shall be a priority.	Consistent with this policy.	The proposed project would utilize a variety of tools to minimize vehicular trips and promote alternative transportation modes.
4.16 Maintaining and operating the existing transportation system will be a priority over expanding capacity.	Consistent with this policy.	The proposed project is an infill project that would utilize the existing transportation system.

TABLE 4.4-2: COMPARISON OF THE PROPOSED PROJECT TO SCAG REGIONAL POLICIES

Policy Type and Goals	Finding	Discussion
AIR QUALITY CHAPTER CORE ACTIONS		
5.07 Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.	Consistent with this policy.	This policy is largely regional in scope. However, the proposed project would incorporate all applicable source reduction and control measures including Air Quality Management District Rule 403 - Fugitive Dust Control, and would strive to identify other programs and actions throughout the life of the proposed project so that options to command and control regulations can be assessed.
5.11 Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.	Consistent with this policy.	The interrelationship between air quality, land use, transportation, and economic relationships was considered throughout the analysis contained in this Supplemental EIR to ensure consistency and minimize conflicts.
OPEN SPACE CHAPTER ANCILLARY GOALS		
9.01 Provide adequate land resources to meet the outdoor recreation needs of the present and future residents in the region and to promote tourism in the region.	Consistent with this policy.	The proposed project contains additional athletic facilities to help meet the recreational needs of the students and surrounding community.
9.02 Increase the accessibility to open space lands for outdoor recreation.	Consistent with this policy.	The proposed project contains athletic facilities to help meet the recreational needs of the students and surrounding community.
9.03 Promote self-sustaining regional recreation resources and facilities.	Not Applicable	The proposed project would not contribute to or eliminate regional recreation resources.
9.04 Maintain open space for adequate protection of lives and properties against natural and man-made hazards.	Consistent with this policy.	The proposed project does not increase the risk to natural and man-made disasters and contains no-build setback zones that buffer areas of risk from buildings.
9.05 Minimize potentially hazardous developments in hillsides, canyons, areas susceptible to flooding, earthquakes, wildfire and other known hazards, and areas with limited access for emergency equipment.	Not Applicable	The proposed project contains measures to minimize the risks of such potential hazards.
9.07 Maintain adequate viable resource production land, particularly lands devoted to commercial agriculture and mining operations.	Not Applicable	The project site does not contain resource production lands.
9.08 Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.	Not Applicable	The project site is located in an urbanized area which is devoid of such ecologically significant resources.
WATER QUALITY		

TABLE 4.4-2: COMPARISON OF THE PROPOSED PROJECT TO SCAG REGIONAL POLICIES

Policy Type and Goals	Finding	Discussion
11.07 Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.	Consistent with this policy.	The ELAC campus is part of the LACCD Sustainable Building program which contains policies to reduce water consumption and wastewater discharges. The proposed project would to adhere to these policies.

SOURCE: SCAG, *Regional Comprehensive Plan and Guide and Regional Transportation Plan*, 1996 and 2001.

Land Use Compatibility

Land use compatibility is the degree to which a proposed land use is compatible with surrounding existing land uses. A final determination of compatibility is not an objective of the CEQA process. However, a decision regarding land use compatibility is based on numerous factors, many of which coincide with CEQA issue areas. The analysis of aesthetics, air quality, noise, cultural resources, and traffic and parking in particular, inform the lead agency about the potential effects to residents, students, and employees that would be present in the project area from existing adjacent uses. Please refer to Section 4.1 Aesthetics and Lighting, 4.2 Air Quality, 4.3 Cultural Resources, 4.5 Noise, and 4.6 Transportation and Traffic for the analysis of environmental impacts in these areas.

The proposed project is located in a predominantly residential area and has operated as an institutional use since 1945. The proposed project would increase the functional use of the campus and would enhance access and educational service to the surrounding community. The proposed project would result in a land use that is compatible with the surrounding residences and community scale commercial development. Therefore, the proposed project would result in no impact to land use compatibility.

MITIGATION MEASURES

No potential significant impacts have been identified, therefore, no mitigation measures are required.

LEVEL OF IMPACT AFTER MITIGATION

Impacts associated with land use and planning are considered less-than-significant without mitigation.

4.5 NOISE

This section evaluates noise and vibration levels associated with the implementation of the proposed project. The noise and vibration analysis in this section assesses: existing noise and vibration conditions at the project site and its vicinity, as well as short-term construction and long-term operational noise and vibration levels associated with the proposed project. Mitigation measures for significant impacts are recommended when appropriate to reduce noise and vibration levels. Supporting documentation is presented in Appendix D.

ENVIRONMENTAL SETTING

Noise Characteristics and Effects

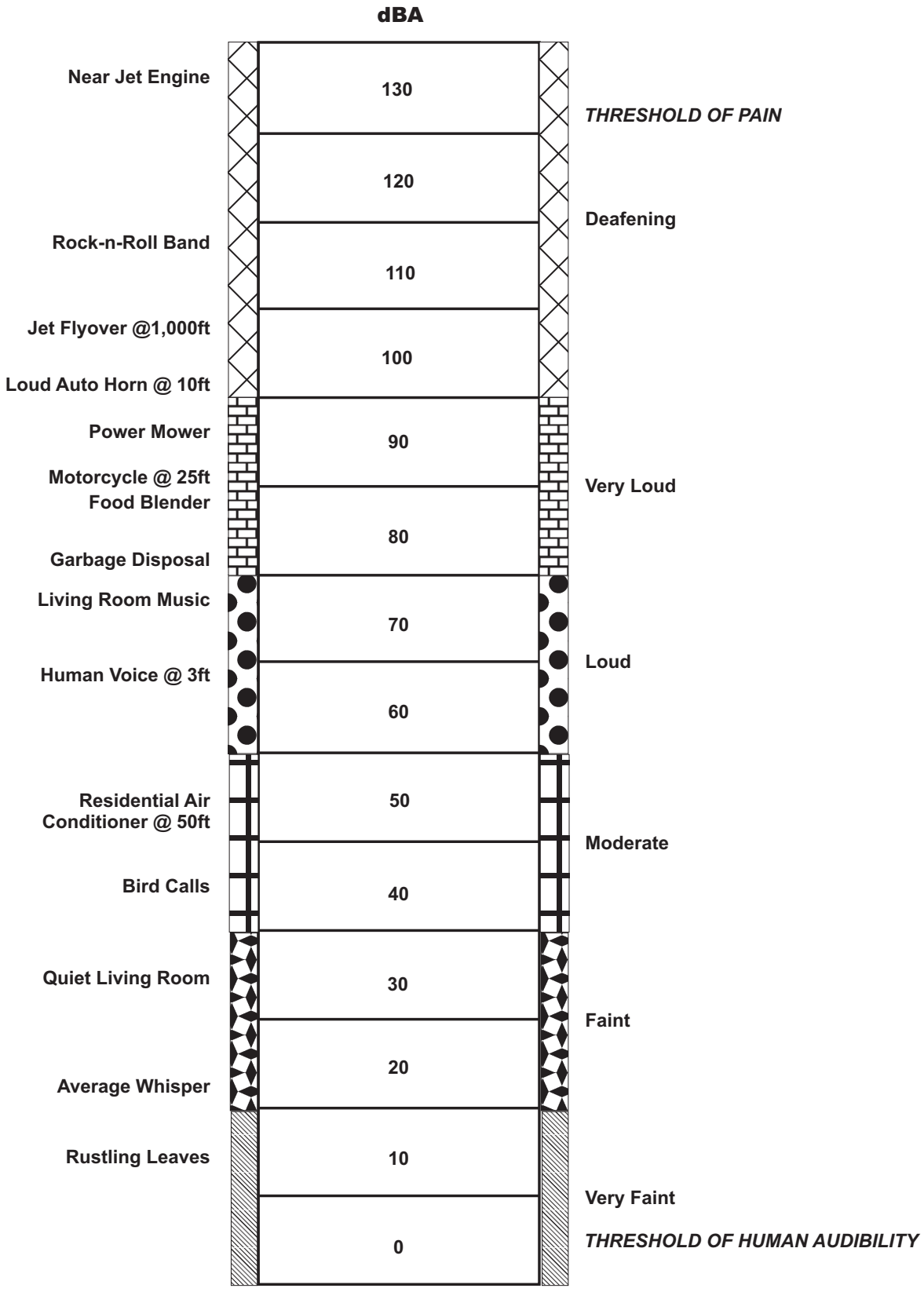
Characteristics of Sound. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. **Figure 4.5-1** provides examples of A-weighted noise levels from common sounds.

Noise Definitions. This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (L_{eq}).

Community Noise Equivalent Level. CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually 5 dBA higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dBA to sound levels in the night from 10:00 p.m. to 7:00 a.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level. L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Effects of Noise. Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment range from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.



SOURCE: TAHA, 2010

East Los Angeles College Facilities Master Plan Update
Supplemental Environmental Impact Report

taha 2009-037

LOS ANGELES COMMUNITY COLLEGE DISTRICT

FIGURE 4.5-1

A-WEIGHTED DECIBEL SCALE

Audible Noise Changes. Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA would be noticeable and would likely evoke a community reaction. A 10-dBA increase is subjectively heard as a doubling in loudness and would cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise generated by a mobile source will decrease by approximately 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of the distance.

Generally, noise is most audible when traveling by direct line-of-sight.[1] Barriers, such as walls, berms, or buildings, that break the line-of-sight between the source and the receiver greatly reduce noise levels from the source since sound can only reach the receiver by bending over the top of the barrier (diffraction). Sound barriers can reduce sound levels by up to 20 dBA. However, if a barrier is not high or long enough to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced.

Applicable Regulations. The City of Monterey Park has established policies and regulations concerning the generation and control of noise that could adversely affect its citizens and noise sensitive land uses. Title 9, Chapter 9.53 – Noise of the Monterey Park Municipal Code (MPMC) includes noise standards for residential, commercial and industrial zones within the City of Monterey Park. As stated in Section 9.53.040 – Noise Standards, "[t]he noise standard for each zone shall be the actual measured median ambient noise level or the following presumed ambient noise level, whichever is greater[.]" **Table 4.5.1** shows the noise standards for the City of Monterey Park.

TABLE 4.5-1: CITY OF MONTEREY PARK NOISE ZONE DESIGNATION AND LIMITS

Noise Zone	Designated Noise Zone Land Use (Receptor Property)	Time Interval	Noise Level Limit (dBA L_{eq})
I	Residential Properties	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	50 55
II	Commercial Properties	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	55 65
III	Industrial Properties	Anytime	70

SOURCE: Monterey Park Municipal Code, Title 9 Peace, Safety and Morals, Chapter 9.53 Noise, Section 9.53.040.

Regarding construction, the Monterey Park Municipal Code (MPMC) indicates that "construction or demolition work conducted between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and the hours of 9:00 a.m. and 6:00 p.m. on Saturdays, Sundays and holidays" are exempt from the provisions of Title 9, Chapter 9.53 Noise of the MPMC.

Section 9.53.070 exempts activities conducted on public playgrounds, and public or private school grounds, including but not limited to, school athletics and school entertainment events.

[1]Line-of-sight is an unobstructed visual path between the noise source and the noise receptor.

The Federal Highway Administration (FHWA) has published noise abatement criteria for determining when to consider noise mitigation.[2] According to the FHWA, mitigation measures should be considered for schools if interior noise levels exceed 52 dBA L_{eq}.

Vibration Characteristics and Effects

Characteristics of Vibration. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment.

Vibration Definitions. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.[3]

Effects of Vibration. High levels of vibration may cause physical personal injury or damage to buildings. However, ground-borne vibration levels rarely affect human health. Instead, most people consider ground-borne vibration to be an annoyance that may affect concentration or disturb sleep. In addition, high levels of ground-borne vibration may damage fragile buildings or interfere with equipment that is highly sensitive to ground-borne vibration (e.g., electron microscopes). To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, engineered concrete and masonry buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. Buildings extremely susceptible to vibration damage can be exposed to ground-borne vibration levels of 0.12 inches per second without experiencing structural damage.[4]

Perceptible Vibration Changes. In contrast to noise, ground-borne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower, well below the threshold of perception for humans which is around 65 RMS.[5] Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Applicable Regulations. There are no adopted City standards for ground-borne vibration. According to the Federal Transit Administration (FTA), standard buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.[6] In addition, **Table 4.5-2** shows FTA annoyance criteria for vibration.

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[2]Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.
[3]*Ibid*.
[4]Federal Railway Administration, *High Speed Ground Transportation Noise and Vibration Impact Assessment*, October 2005.
[5]Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.
[6]*Ibid*.

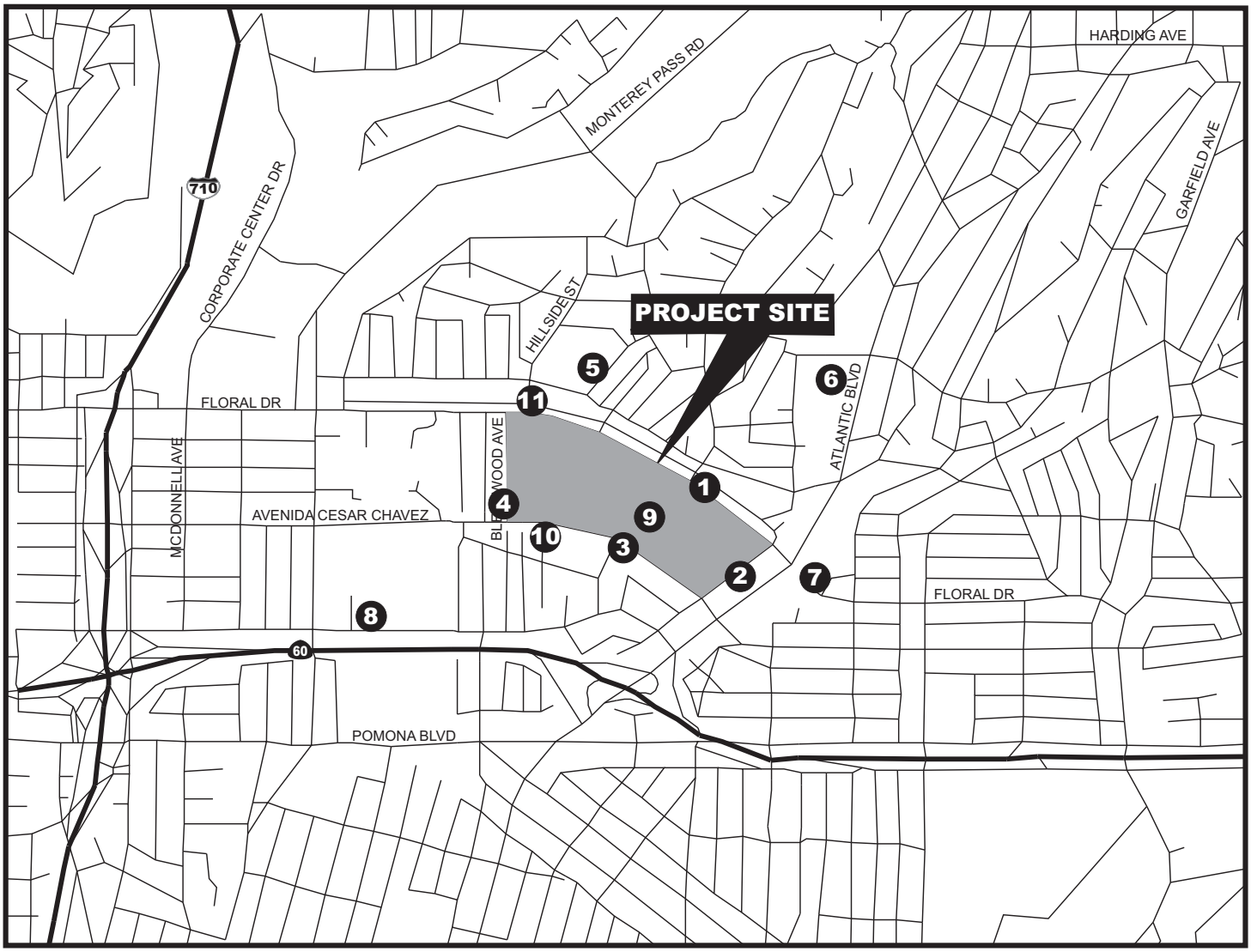
TABLE 4.5-2: FTA VIBRATION IMPACT CRITERIA

Land Use Category	Vibration Impact Level for Frequent Events (VdB)/a/	Vibration Impact Level for Occasional Events (VdB)/b/	Vibration Impact Level for Infrequent Events (VdB)/c/
Category 1: Buildings where low ambient vibration is essential for interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

/a/ Frequent events are defined as more than 70 vibration events of the same source per day.
/b/ Occasional events are defined as between 30 and 70 vibration events of the same source per day.
/c/ Infrequent events are defined as fewer than 30 vibration events of the same source per day.
SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

Existing Noise and Vibration Levels

Monitored Ambient Noise Levels. The existing noise environment of the project area is characterized by vehicular traffic and noises typical to a dense urban area (e.g., sirens, horns, helicopters, etc.). Sound measurements were taken using a SoundPro DL Sound Level Meter between 8:00 a.m. and 9:30 p.m. on January 11, 2010 to determine existing ambient daytime and nighttime noise levels in the project vicinity. These readings were used to establish existing ambient noise conditions and to provide a baseline for evaluating construction and operational noise impacts. Noise monitoring locations are shown in **Figure 4.5-2**. As shown in **Table 4.5-3**, existing ambient sound levels ranged from 61.6 to 67.1 dBA L_{eq} during the AM peak hour period (7:30 to 9:30 a.m.). Off-peak ambient sound levels ranged from 54.7 to 66.2 dBA L_{eq}. Nighttime ambient noise levels ranged from 54.1 to 54.6 dBA L_{eq}.



LEGEND:

Project Site

Noise Monitoring Locations

1. Corner of Crest Vista Drive and Floral Drive
2. East side of ELAC Campus along Collegian Avenue
3. ELAC Campus Southern Entrance
4. Child Development Center
5. Brightwood Elementary School
6. St. Thomas Aquinas School
7. Single-Family Residence (649 Floral Drive)
8. Morris K. Hamasaki Elementary School
9. Inner Campus between existing classrooms E5 and E3
10. Single-Family Residence (2311 Wescott Avenue)
11. Corner of Hillside Street and Floral Drive

SOURCE: TAHA, 2009

FIGURE 4.5-2

NOISE MONITORING LOCATIONS

TABLE 4.5-3: EXISTING NOISE LEVELS			
Key to Figure 4.7-2	**Noise Monitoring Location**	**Distant from Project Site (feet)**	**Sound Level (dBA, L_{eq})**
AM Peak Hour Period (7:30 to 9:30 a.m.)			
1	Crest Vista Drive and Floral Drive	65	67.1
9	Inner Campus between existing classrooms E5 and E3	Adjacent	61.6
Off-Peak Period			
1	Crest Vista Drive and Floral Drive	65	63.4
2	East side of ELAC Campus along Collegian Avenue	Adjacent	63.9
3	ELAC Campus southern entrance	Adjacent	66.2
4	Child Development Center	Adjacent	60.9
5	Brightwood Elementary School	525	59.1
6	St. Thomas Aquinas School	1,695	63.4
7	649 Floral (Single-Family Residence)	750	54.7
8	Morris K. Hamasaki Elementary School	1,690	58.2
Nighttime (8:30 to 9:30 p.m.)			
4	Child Development Center	Adjacent	54.1
10	2311 Wescott Avenue (Single-Family Residence)	110	54.6
11	Hillside Street and Floral Drive	65	54.2
SOURCE: TAHA, 2010.			

Modeled Vehicular Noise Levels. Vehicular traffic is the predominant noise source in the project vicinity. Using existing traffic volumes provided by the project traffic consultant and the Federal Highway Administration (FHWA) RD-77-108 noise calculation formulas, the CNEL was calculated for various roadway segments near the project site. As shown in **Table 4.5-4**, existing mobile source noise levels in the project area range from 61.5 to 68.2 dBA CNEL.

TABLE 4.5-4: EXISTING COMMUNITY NOISE EQUIVALENT LEVEL /a/	
Roadway Segment	**Estimated CNEL (dBA)**
Floral Drive between Bleakwood Avenue and Collegian Avenue	68.2
Brightwood Street, eastbound from Atlantic Boulevard	61.5
Floral Drive between Mednik Avenue to Bleakwood Avenue	67.7
Floral Drive between Ford Boulevard to Mednik Avenue	67.3
Mednik Avenue, southbound from Floral Drive	67.1
Bleakwood Avenue between Floral Drive and Avenida Cesar Chavez	64.0
Avenida Cesar Chavez between Bleakwood Avenue and Collegian Avenue	66.6
Collegian Avenue between Avenida Cesar Chavez and Floral Drive	65.7
/a/ The predicted CNEL were calculated as peak hour L_{eq} and converted into CNEL using the California Department of Transportation Technical Noise Supplement (October 1998). The conversion involved making a correction for peak hour traffic volumes as a percentage of average daily traffic and a nighttime penalty correction. **SOURCE:** TAHA, 2010.	

Ambient Vibration Levels. There are no stationary sources of vibration located near the project site. Heavy-duty trucks and trains can generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions. Based on field observations, vibration levels from adjacent roadways are not typically perceptible at the project site.

Sensitive Receptors

Off-Site Receptors. Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. Sensitive receptor distances presented below are measured from the nearest construction activity. As shown in **Figure 4.5-3**, off-site sensitive receptors include the following:

- Single- and multi-family residences located approximately 65 feet to the north
- Single-family residences located approximately 65 feet to the west
- Single-family residences located approximately 110 feet to the south
- Robert Hill Lane Elementary School located approximately 120 feet to the south
- Brightwood Elementary School located approximately 525 feet to the north
- Sunnyslopes Park located approximately 540 feet to the north
- Single-family residences located approximately 750 feet to the east
- Belvedere Park located approximately 795 feet to the southwest
- Morris K. Hamasaki Elementary School located approximately 1,690 feet to the southwest
- St. Thomas Aquinas School located approximately 1,695 feet to the northeast

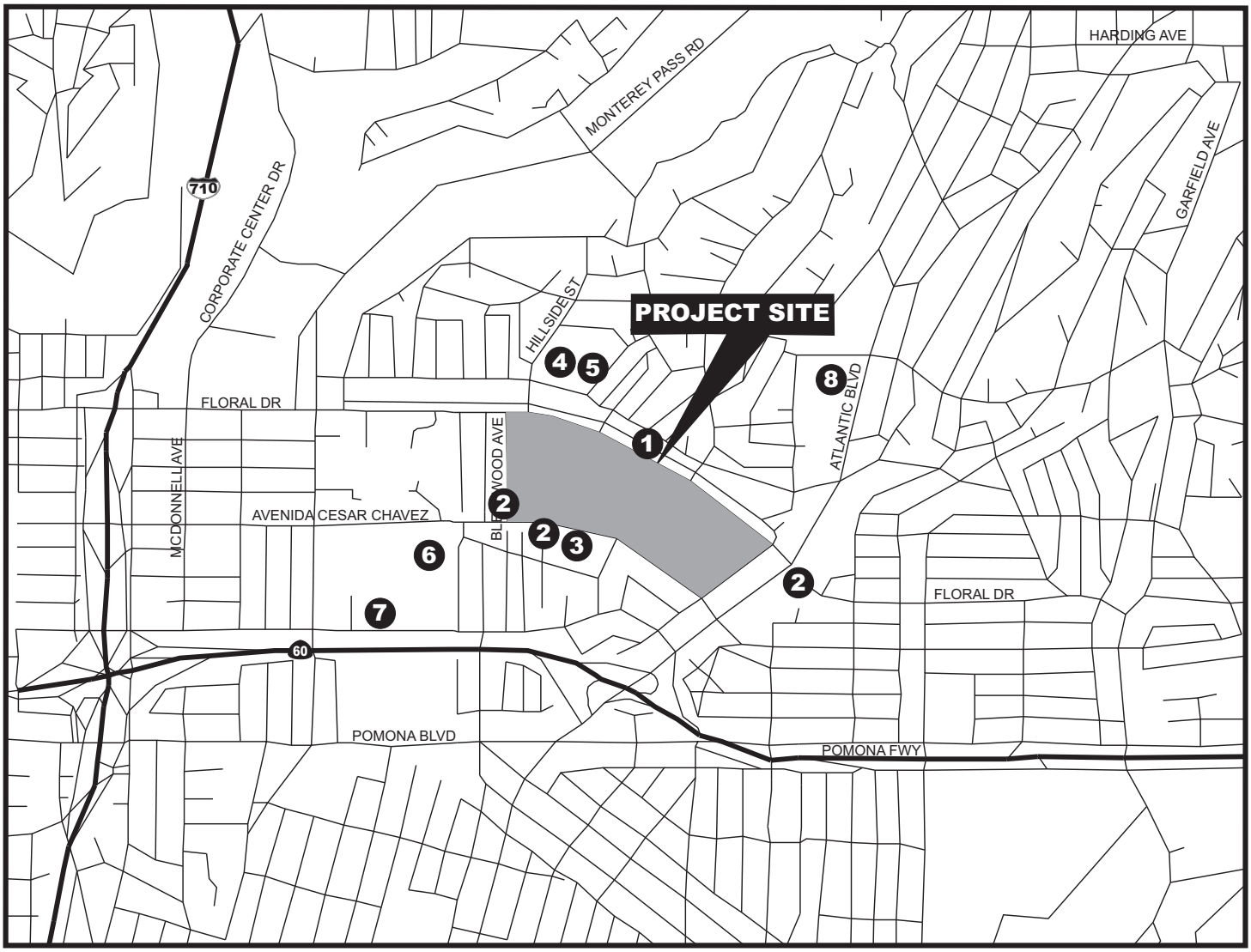
The above sensitive receptors represent the nearest sensitive receptors with the potential to be impacted by the proposed project. Additional sensitive receptors located in the surrounding community may be impacted by the proposed project.

On-Site Receptors. A Child Development Center is located at the southwest border of the campus on Bleakwood Avenue and Avenida Cesar Chavez. The Center includes an outdoor play area on the northeast side of the building. The Center monitors children ages three to ten, and children up to fourth grade during the Fall and Spring only. The Center maintains business hours from 7:30 a.m. to 8:00 p.m.

PREVIOUSLY DISCLOSED IMPACTS

The Final EIR for the 1998 Facilities Master Plan concluded that construction activity and operation of Weingart Stadium would result in significant noise impacts. Mitigation Measures N1 through N14 were included to reduce noise exposure. These mitigation measures reduced the operation noise impact to a less-than-significant level but the mitigated construction noise impact remained significant

The Addendum for the 2004 Facilities Master Plan Update concluded that no additional significant impacts would occur with regard to noise. No additional mitigation measures were required.



LEGEND:

Project Site

(#) Sensitive Receptors

1. Single- and Multi-Family Residences
2. Single-Family Residences
3. Robert Lane Hill Elementary School
4. Brightwood Elementary School
5. Sunnyslopes Park
6. Belvedere Park
7. Morris K. Hamasaki Elementary School
8. St. Thomas Aquinas School

SOURCE: TAHA, 2009

FIGURE 4.5-3

NOISE SENSITIVE
RECEPTOR LOCATIONS

THRESHOLDS OF SIGNIFICANCE

Noise

Construction. The City of Monterey Park has not adopted construction noise level standards. Instead, the City regulates construction noise by limiting activity to the hours identified in the municipal code. The California Environmental Quality Act requires that project impacts be analyzed relative to the change in existing conditions. Compliance with a municipal code alone does not constitute a comparison to existing conditions. Based on the characteristics of sound, a change of 5 dBA from existing conditions would cause a community response. A significant impact would occur if:

- Construction activities would exceed existing ambient noise levels by 5 dBA or more at a noise sensitive use; and/or
- Noise levels at existing classrooms exceed an interior noise level of 52 dBA L_{eq}.

Operational. The municipal code exempts operational noise associated with schools from the noise zone limits. Based on the characteristics of sound and the FHWA noise abatement criteria, a significant impact would occur if:

- Operational activities would exceed existing ambient noise levels by 5 dBA or more at noise sensitive uses; and/or
- Mobile noise sources exceed the ambient noise level measured at the property line of the affected uses to increase by 3 decibels CNEL to or within the "normally unacceptable" or "clearly unacceptable" categories, as show in **Table 4.5-5**; and/or
- Noise levels at proposed classrooms exceed an interior noise level of 52 dBA L_{eq}.

Vibration

The proposed project would result in a significant construction or operational vibration impact if:

- Construction activity would expose buildings to the FTA building damage threshold level of 0.3 inches per second; and/or
- Construction activity would exceed the FTA annoyance threshold level of 75 Vdb at sensitive receptors.

TABLE 4.5-5: NOISE/LAND USE COMPATIBILITY CHART

Land Use Category	Community Noise Exposure - L_{dn} or CNEL (dBA)					
	55	60	65	70	75	80
Residential - Low Density Single-Family, Duplex, Mobile Homes						
Residential - Multi-Family						
Transient Lodging - Motels Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditionally will normally suffice.

Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable - New construction or development should generally not be undertaken.

SOURCE: California Office of Noise Control, Department of Health Services, 1990.

IMPACTS

Methodology

The noise analysis considers construction, operational, and vibration sources. Construction noise levels are based on information obtained from the United States Environmental Protection Agency. The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level. Operational noise levels were calculated based on information provided in the traffic study and stationary noise sources located on the project site. Vibration levels were estimated based on information provided by the FTA.[7]

Construction Impacts

Noise. Construction of the proposed project would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would occur during the approximate 36-month construction schedule. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities typically require the use of numerous noise-generating equipment. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4.5-6**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

TABLE 4.5-6: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION MACHINES

	Noise Level (dBA)	
Noise Source	**50 Feet /a/**	**100 Feet /a/**
Front Loader	80	74
Trucks	89	83
Cranes (derrick)	88	82
Jackhammers	90	84
Generators	77	71
Back Hoe	84	78
Tractor	88	82
Scraper/Grader	87	81
Paver	87	81
Impact Pile Driving	101	95
Auger Drilling	77	71

/a/ Assumes a 6-dBA drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of ten and 30 feet from the noise source.
SOURCE: USEPA, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.

The noise levels shown in **Table 4.5-7** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. **Table 4.5-8** presents the estimated noise levels at sensitive receptors during construction activity. Construction noise levels would exceed the significance

[7]Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

threshold at multiple residential land uses and the Robert Hill Lane Elementary School. Construction activity would result in a significant off-site noise impact without mitigation.

TABLE 4.5-7: OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level At 50 Feet (dBA)
Ground Clearing	84
Grading/Excavation	89
Foundations	78
Structural	85
Finishing	89

SOURCE: USEPA, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.

TABLE 4.5-8: CONSTRUCTION NOISE IMPACTS – UNMITIGATED

Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Existing Ambient	New Ambient	Impact?
Child Development Center	50	89.0	60.9	89.0	**28.1**
Single- and multi-family residences to the north	65	86.7	63.4	86.7	**23.3**
Single-family residences to the west	65	82.2	60.9	86.7	**25.8**
Single-family residences to the south	110	81.4	66.2	82.3	**16.1**
Robert Hill Lane Elementary School	120	58.6	66.2	81.5	**15.3**
Brightwood Elementary School	525	58.3/c/	59.1	61.9	2.8
Sunnyslopes Park	540	55.5/c/	59.1	61.7	2.6
Single-family residences to the east	750	60.0/c/	54.7	58.1	3.4
Belvedere Park	795	53.4/d/	58.2	62.2	4.0
Morris K. Hamasaki Elementary	1690	53.4/d/	58.2	59.4	1.2
St. Thomas Aquinas School	1695	89.0/d/	63.4	63.8	0.4

/a/ Distance of noise source from receptor.
/b/ Includes a noise reduction for distance attenuation.
/c/ Includes a 10-dBA reduction for intervening structures and/or terrain.
/d/ Includes a 5-dBA reduction for intervening structures and/or terrain.
SOURCE: TAHA, 2010.

With respect to on-site sensitive receptors, as shown in **Table 4.5-8**, noise generated during construction of the proposed tennis courts, football and soccer fields would exceed the noise standard at the Child Development Center. This would result in a significant on-site impact without mitigation.

Vibration. Construction activity would potentially generate substantial vibration levels. As shown in **Table 4.5-9**, use of heavy equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inches per second at a distance of 25 feet. The closest off-site structure to construction activity would be the single- and multi-family residences located 65 feet from the nearest construction activity. These structures would experience vibration levels of 0.021 inches per second. This would be less than the FTA threshold for buildings of 0.3 inches per second. The potential for off-site building damage as a result of construction vibration would result in a less-than-significant impact.

The closest on-site structure to construction activity would be the Child Development Center located 25 feet from the nearest construction activity. This structure would experience vibration levels of 0.089 inches per second. This would be less than the FTA threshold for buildings of 0.3 inches per second. The

potential for building damage as a result of construction vibration would result in a less-than-significant impact.

TABLE 4.5-9: VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 feet (Inches /Second) /a/	Vibration Decibels at 25 feet (VdB)
Caisson Drilling	0.089	87
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86

/a/ Fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.
SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

The FTA vibration impact criteria for annoyance are shown in **Table 4.5-2**. Construction activity would occur during daytime hours and, as such, the Category 3 thresholds for daytime uses were utilized for the analysis. A construction vibration annoyance impact would result if sensitive receptors would be exposed to vibration levels of 75 VdB RMS or greater. Typical heavy equipment (e.g., a large bulldozer) generates vibration levels of 87 VdB RMS at a distance of 25 feet. The nearest off-site sensitive receptor would be at least 65 feet from construction activity. At this distance, typical construction equipment would generate vibration levels of approximately 79 VdB RMS. This vibration level would exceed the annoyance threshold of 75 VdB RMS and, as such, construction-related vibration would result in a significant annoyance impact.

The Child Development Center located in the southwest portion of the project site would be potentially impacted by vibration generated during construction activity. The Child Development Center has an outdoor play area that would be 15 feet from the nearest construction activity which would occur during construction of the tennis courts, football and soccer fields. The building for the Child Development Center would be at least 30 feet from construction activity. The outdoor play area could potentially experience a vibration level of approximately 84.7 VdB. The Child Development Center building could experience a vibration noise level of approximately 85 VdB. Vibration levels would exceed the annoyance threshold at the Child Development Center building and the outdoor play area. Children use the outdoor area for limited period of time and vibration does not typically interfere with outdoor activities. Nonetheless, construction-related vibration at the Child Development Center building and outdoor play area would result in a significant annoyance impact.

Operational Impacts

Mobile Noise. The proposed project would generate 4,633 daily vehicle trips.[8] To determine off-site noise impacts, traffic was modeled under future year (2016) "No Project" and "With Project" conditions utilizing FHWA RD-77-108 noise calculation formulas. Results of the analysis are summarized in **Tables 4.5-10**. The greatest project-related noise increase would be 1.0 dBA CNEL and would occur along Bleakwood Avenue between Floral Drive and Avenida Cesar Chavez. Mobile noise generated by the proposed project would not cause the ambient noise level measured at the property line of the affected uses to increase by 3 dBA CNEL to or within the "normally unacceptable" or "clearly unacceptable" category (**Table 4.5-5**) or any 5-dBA or more increase in noise level. Vehicular noise would result in a less-than-significant impact.

[8]Cordoba Corporation, *Traffic Impact and Parking Analysis of the East Los Angeles Community College Master Plan Update*, January 2010.

TABLE 4.5-10: 2015 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL /a/

Roadway Segment	Estimated dBA, CNEL /b/		
	No Project (2015)	Project (2015)	Project Impact
Floral Drive between Bleakwood Avenue and Collegian Avenue	68.3	68.6	0.3
Brightwood Street, eastbound from Atlantic Boulevard	61.7	61.7	0.0
Floral Drive between Mednik Avenue to Bleakwood Avenue	67.9	68.3	0.4
Floral Drive between Ford Boulevard to Mednik Avenue	67.5	67.9	0.4
Mednik Avenue, southbound from Floral Drive	67.3	67.3	0.0
Bleakwood Avenue between Floral Drive and Avenida Cesar Chavez	64.1	65.1	1.0
Avenida Cesar Chavez between Bleakwood Avenue and Collegian Avenue	66.8	67.1	0.3
Collegian Avenue between Avenida Cesar Chavez and Floral Drive	65.8	66.2	0.4

/a/ The predicted CNEL were calculated as peak hour L_{eq} and converted into CNEL using the California Department of Transportation *Technical Noise Supplement* (October 1998). The conversion involved making a correction for peak hour traffic volumes as a percentage of average daily traffic and a nighttime penalty correction.
SOURCE: TAHA, 2010.

Mechanical Equipment Noise. No changes are proposed to the existing central plant. A new central plant facility would be constructed on the north side of the campus, approximately 65 feet from single- and multi-family residences north of the project site. The central plant facility would include equipment outside and equipment within a cinder block structure. Noise generating equipment outside would include three cooling towers and eight microturbines. Equipment within the cinder block building would include chillers, boilers, pumps, a fan coil unit, heat exchangers, air separators, expansion tanks, and variable frequency drives.

Noise generated by the equipment within the cinder block structure would be inaudible. However, equipment outside the structure would generate audible noise levels. The three cooling towers would generate a composite noise level of 77.8 dBA at 50 feet.[9] The eight microturbines would generate a composite noise level of 70.4 dBA at 50 feet.[10] The total composite noise level generated by the central plant would be 78.5 dBA at 50 feet. This could (without mitigation) cause the daytime ambient noise level at nearby sensitive receptors to increase by 13.0 dBA over the existing daytime ambient noise level of 63.4 dBA L_{eq}. The nighttime ambient noise level at nearby sensitive receptors could increase by 22.0 dBA over the existing nighttime ambient noise level of 54.2 dBA. Operation of the central plant facility could exceed the 5-dBA significance threshold, and would result in a significant noise impact without mitigation.

Athletic Field Noise. The existing ELAC campus conditions include a baseball field in the southwestern portion of the campus near to the Child Development Center, Weingart Stadium along Floral Drive, and the Women's Softball Field also along Floral Drive. These uses would not change under the proposed project. The proposed project would include several outdoor recreation areas. The proposed tennis courts, football and soccer fields would be built in the southwestern portion of the campus near to the Child Development Center. The proposed Women's Athletic Field would be sited near the northern boundary of the project site, adjacent and the east of the existing Women's Softball Field. The proposed tennis courts, football and soccer fields would include light poles for nighttime games and practice. These recreational land uses would not include public address systems or bleachers for crowds. It is anticpaited that nighttime fields would operate until 10:00 p.m.

[9]B.A.C. Cooling Tower Selection Program Memorandum, September 22, 2009.
[10]Capstone Turbine Corporation, C65 & C65-ICHP MicroTurbine brochure, copyright date 2008.

Outdoor activities typically generate 60 dBA L_{eq} noise level 50 feet.[11] Outdoor activity noise levels fluctuate in intensity with periods of loud noise (full-speed activity) followed by periods of minimal noise (e.g., halftime). The closest off-site sensitive receptors to outdoor activity areas include residential land uses 65 feet to the north of the Women's Athletic Field, and single-family residences 175 feet south of the tennis courts, football and soccer fields. The nearest on-site sensitive receptor would be the Child Development Center located adjacent to the tennis court, football and soccer fields.

For off-site sensitive receptors, the highest day time ambient noise increase would occur at the single- and multi-family residences along Floral Drive, located approximately 65 feet north of the proposed Women's Athletic Field. These residential uses would experience a 0.4-dBA increase in ambient noise from noise generated at the proposed Women's Athletic Field. This noise level increase would not be audible and would not exceed the 5-dBA threshold for operational noise. The highest nighttime ambient noise increase would occur at the single-family residences along Avenida Cesar Chavez, located approximately 175 feet south of the proposed tennis courts, football and soccer fields. These residential uses would experience a less than 0.1-dBA increase in ambient noise from noise generated at the proposed tennis courts, football and soccer fields. This noise level would not be audible and would not exceed the 5-dBA threshold for operational noise.

For on-site sensitive receptors, the highest day time ambient noise increase would occur at the Child Development Center along Bleakwood Avenue, located adjacent and to the west of the proposed tennis courts, football and soccer fields. The Child Development Center includes an outdoor play area located on the northeast side of the building. The noise environment of the outdoor play area would be compatible with the noise environment of the proposed recreational uses. Interior daytime and nighttime noise levels would be 43.9 dBA L_{eq} and 37.1 dBA L_{eq}, respectively. With operation of the proposed tennis courts, football and soccer fields daytime and nighttime noise levels could increase to 46.5 dBA L_{eq} and 44.0 dBA L_{eq}, respectively. These noise levels would not exceed the 52-dBA threshold for interior noise levels. In addition, the Child Development Center closes at 8:00 p.m., and would not be exposed for the entirety of nighttime activity at the proposed tennis courts, football and soccer fields.

All other nearby sensitive uses would experience ambient noise level increases below the 5-dBA threshold from day time and nighttime outdoor activity noise. Outdoor activity noise would result in a less-than-significant impact.

Parking Noise. The proposed project would provide a new above-ground, four-level parking structure at the southern entrance to the ELAC campus. This parking structure would be approximately 110 feet from the nearest sensitive receptor, the single-family residences located south of the project site. Automobile parking activity typically generates a noise level of approximately 58.1 dBA L_{eq} at 50 feet (e.g., tire noise, engine noise, and door slams).[12] Parking and access activity would generate a maximum noise level increase of 0.1 dBA L_{eq} at the nearest sensitive receptor. This increase would be inaudible. Parking structure noise would result in a less-than-significant operational noise impact.

Land Use Compatibility/Interior Noise Levels. New classroom facilities would be located along the northern boundary of the project site 100 feet from Floral Drive. As shown in **Table 4.5-10**, the peak-hour ambient noise level along Floral Drive is 68.6 dBA L_{eq}. Typical building construction reduces exterior-to-interior noise levels by approximately 17 dBA. Interior noise levels along Floral Drive would be 51.6 dBA L_{eq}. This noise level would not exceed the 52 dBA L_{eq} significance threshold. Land use compatibility would result in a less-than-significant impact.

[11]Los Angeles Unified School District, *LAUSD New School Construction Program Draft Program EIR*, March 2004.

[12]The reference parking noise level is based on a series of noise measurements completed 50 feet from vehicles accessing a multi-level parking structure.

Vibration. The proposed project would not include significant stationary sources of ground-borne vibration, such as heavy equipment operations. Operational ground-borne vibration in the project vicinity would be generated by vehicular travel on the local roadways. However, similar to existing conditions, project-related traffic vibration levels would not be perceptible by sensitive receptors. Operational vibration would result in a less-than-significant impact.

MITIGATION MEASURES

Mitigation measures are numbered sequentially following previously identified mitigation measures prescribed in the Final EIR for the 1998 Facilities Master Plan and the Addendum for the 2004 Facilities Master Plan Update.

Construction

N15 All construction equipment shall be equipped with mufflers and other suitable noise attenuation devices.

N16 To the extent feasible, a temporary six-foot solid wall (e.g., wood) shall be erected during construction. The wall shall be placed such that line-of-sight between ground-level construction activity and nearby sensitive receptors would be blocked.

N17 Prior to initiating construction, the construction contractor shall coordinate with the site administrator for the Child Development Center and Robert Hill Lane Elementary School to discuss construction activities that generate high noise levels. Coordination between the site administrator and the construction contractor shall continue on an as-needed basis throughout the construction phase of the project to mitigate potential disruption of classroom activities.

N18 All residential units located within 500 feet of any construction site shall be sent a notice regarding the construction schedule of the proposed project. All notices shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can inquire about the construction process and register complaints.

N19 A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.

N20 The Child Development Center shall prohibit outdoor activity at their outdoor play area when mobile diesel equipment is being actively utilized to construct the tennis courts, football and soccer fields.

Operation

N21 The proposed central plant shall include noise control design features that reduce the total composite noise level generated at the central plant facility to a maximum of 56 dBA at 50 feet. The project applicant shall ensure this noise level is maintained through the periodic monitoring of operational noise levels at the central plant facility. If the operational noise levels would exceed the 56 dBA noise level, mitigation shall be implemented to further reduce noise levels, including, but not limited to the following:

- Installing acoustical enclosures around the cooling towers and/or micro-turbines;

- Installing low noise fans on the cooling towers; and/or
- Installing and intake hoods and exhaust mufflers on the microturbines.

LEVEL OF IMPACT AFTER MITIGATION

Construction

Implementation of Mitigation Measure **N15** would reduce noise levels by approximately 3 dBA. Implementation of Mitigation Measure **N16** would reduce noise levels at nearby sensitive receptors by at least 5 dBA. Implementation of Mitigation Measure **N17** would minimize disruption at the Child Development Center and Robert Hill Lane Elementary School. Implementation of Mitigation Measures **N18** and **N19** would assist in attenuating construction noise levels. As shown in **Table 4.5-11**, multiple sensitive receptors would still be exposed to ambient noise levels that exceed the 5-dBA significance threshold. Construction noise would result in an unavoidable significant impact.

TABLE 4.5-11: CONSTRUCTION NOISE IMPACTS – MITIGATED

Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Existing Ambient	New Ambient	Impact?
Child Development Center	50	81.0	60.9	81.0	**20.1**
Single- and multi-family residences to the north	65	78.7	63.4	78.8	**15.4**
Single-family residences to the west	65	78.7	60.9	78.8	**17.9**
Single-family residences to the south	110	74.2	66.2	74.8	**8.6**
Robert Hill Lane Elementary School	120	73.4	66.2	74.2	**8.0**
Brightwood Elementary School	525	50.6/c/	59.1	59.7	0.6
Sunnyslopes Park	540	50.3/c/	59.1	59.6	0.5
Single-family residences to the east	750	47.5/c/	54.7	55.5	0.8
Belvedere Park	795	52.0/d/	58.2	59.1	0.9
Morris K. Hamasaki Elementary	1690	45.4/d/	58.2	58.4	0.2
St. Thomas Aquinas School	1695	45.4/d/	63.4	63.5	0.1

/a/ Distance of noise source from receptor.
/b/ Includes a noise reduction for distance attenuation and an 8-dBA reduction for application of mitigation measures.
/c/ Includes a 10-dBA reduction for intervening structures and/or terrain.
/d/ Includes a 5-dBA reduction for intervening structures and/or terrain.
SOURCE: TAHA, 2010.

Implementation of Mitigation Measure **N20** would ensure that children at the Child Development Center would not be exposed to significant vibration levels. Mitigated construction vibration would result in a less-than-significant impact.

Operation

Implementation of Mitigation Measure **N21** would ensure that noise levels generated by central plant operation would be less than significant. Noise level increases from the central plant would not exceed the 5-dBA significance threshold. Mitigated operational noise levels for the central plant would result in a less-than-significant impact.

4.6 TRANSPORTATION AND TRAFFIC

This section summarizes the findings of the traffic and parking analysis conducted by Cordoba Corporation. The complete Traffic Impact and Parking Analysis report, dated January 8, 2010 is included in Appendix E of this document.

The traffic and parking analysis was prepared to evaluate traffic generated by the proposed project and the impacts on the surrounding street system. The traffic analysis addresses existing conditions, cumulative base conditions, and cumulative plus project conditions. Student enrollment[1] reached 20,128 in 2009 and is projected to reach approximately 270,000 by 2015. Project conditions include an additional 6,845 students, resulting in approximately 3,012 new daytime students. The Final EIR for the 1998 Facilities Master Plan analyzed a 2015 student population of 25,000 students, which resulted in an increase of 3,511 new day-time students. Daytime students were used to assess traffic impacts because they occur during peak traffic conditions, whereas the night-time students travel in off-peak traffic periods. Existing and potential future parking demands were analyzed in detail. Traffic and parking mitigation measures were recommended as needed.

ENVIRONMENTAL SETTING

Existing Street System

Regional access to the ELAC campus is provided by State Route 60, located approximately 1/4-mile to the south, the Long Beach Freeway (I-710), located approximately one mile to the west, the San Bernardino Freeway (I-10), located approximately two miles to the north and the Santa Ana Freeway (I-5), located approximately two miles to the south. Access between the campus and the east/west oriented State Route 60 is obtained via an off-ramp at Atlantic Boulevard and at Floral Drive and the Avenida Cesar Chavez ramps on the north/south oriented I-710. State Route 60 connects to the north/south oriented I-710. The major streets serving the campus are Avenida Cesar Chavez in the east/west direction and Atlantic Boulevard and Eastern and Garfield Avenues in the north/south direction. In addition, the Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line Atlantic Station serves the area, located one-half mile to the south of the ELAC campus.

Existing Public Transit Service

The campus is currently served by bus services provided by the (Metro), the City of Monterey Park Spirit, the City of Montebello, and the Los Angeles County Department of Public Works East Los Angeles El Sol Shuttle. The following bus lines serve the campus:

- Metro Route #31 – This route travels along 1st Street connecting downtown Los Angeles and East Los Angeles.
- Metro Route #68 – This route travels along Avenida Cesar Chavez connecting downtown Los Angeles and East Los Angeles.
- Metro Route #256 – This route travels along 3rd Street in the project area connecting Pasadena, Altadena and East Los Angeles.

[1]Student enrollment is calculated as *unduplicated headcount*, representing the actual number of students attending the college.

- Metro Route #258 – This route travels along Arizona Avenue and Mednik Boulevard in the project area connecting East Los Angeles and South Los Angeles.
- Metro Route #260 – This route travels along Atlantic Boulevard connecting in the project area connecting East Los Angeles and South Los Angeles.
- Metro Route #287 – This route travels along Floral Drive in the project area connecting East Los Angeles and El Monte.
- Metro Route #762 – This route travels along Atlantic Boulevard in the project area connecting East Los Angeles and South Los Angeles.
- Metro Route #770 – This route travels along Avenida Cesar Chavez and Atlantic Boulevard in the project area connecting downtown Los Angeles and East Los Angeles.
- Montebello Route #10 – This route travels along Atlantic Boulevard in the project area connecting ELAC and Whittier.
- Montebello Route #341 – This route travels along 3rd Street in the project area connecting downtown Los Angeles and East Los Angeles.
- Montebello Route #342 – This route travels along 3rd Street in the project area connecting downtown Los Angeles and East Los Angeles.
- Monterey Park Route #1 – This route travels along 1st Street, Avenida Cesar Chavez and Atlantic Boulevard in the study area and serves ELAC as well as Central Monterey.
- Monterey Park Route #2 – This route travels along Atlantic Boulevard and Floral Drive in the study area and serves ELAC as well as central Monterey.
- Monterey Park Route #4 – This route travels along Monterey Pass Road and Corporate Center Drive in the project area and serves Medical Center with northern Monterey.
- Monterey Park Route #5 – This route travels along Atlantic Boulevard, Floral Drive, and Corporation Center Drive in the project area and serves ELAC, Corporation Center and all of southern Monterey Park.
- El Sol City Terrace/ELAC Route - This route travels along Eastern, Floral, Cesar Chavez, Gage Avenues, Atlantic and Pomona Boulevards, and City Terrace Drive connecting the California State University, Los Angeles to ELAC.
- El Sol Whittier Boulevard/Saybrook Park Route - This route travels along Whittier, Olympic, and Pomona Boulevards, connecting Saybrook Park to the East Los Angeles Civic Center.
- El Sol Union Pacific/Salazar Park Route - This route travels along 1st, 3rd, and Ford Avenues and Olympic, Pomona, and Whittier Boulevards, connecting the East Los Angeles Civic Center to Union Pacific and Salazar Park.

Existing Traffic Conditions and Level of Service Methodology

Existing traffic counts were conducted at the 12 study intersections in September 2009 while college classes were in full session. The traffic counts were conducted during both the morning (7:00 a.m. – 9:00 a.m.) and evening (4:00 p.m. – 6:00 p.m.) peak periods. Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. The City of Monterey Park has established LOS C as the minimum acceptable level of service. The definitions for each level of service are described in **Table 4.6-1** for signalized intersections and **Table 4.6-2** for unsignalized intersections.

TABLE 4.6-1: LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

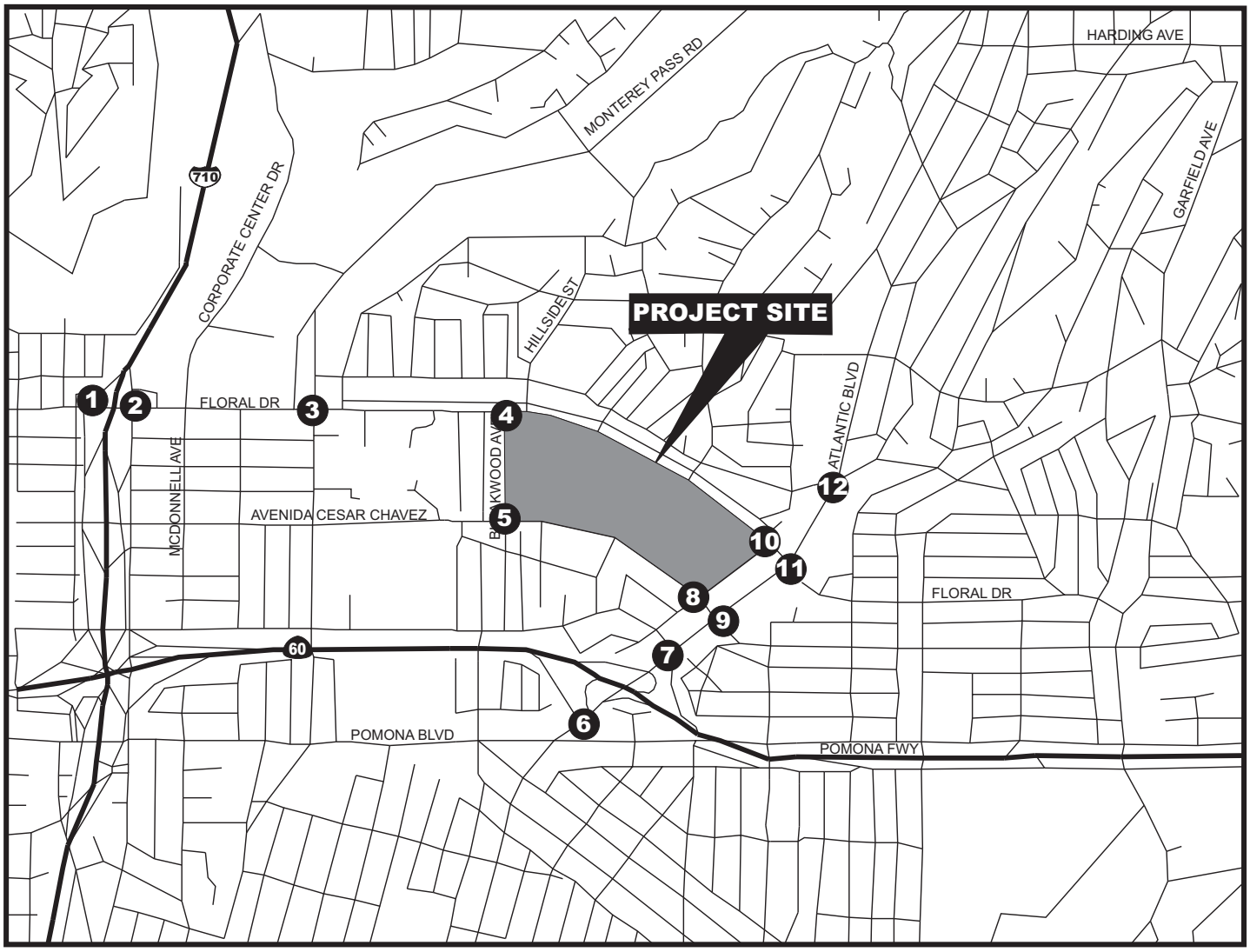
Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	At LOS A, there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	0.601 - 0.700	LOS B represents stable operations. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted with platoons of vehicles.
C	0.701 - 0.800	At LOS C stable operations continue. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication, and back-ups may develop behind turning vehicles.
D	0.801 - 0.900	LOS D encompasses a zone of increasing restriction, approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	0.901 - 1.000	LOS E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).
F	> 1.000	LOS F represents jammed conditions. Backups from locations downstream or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches; volumes carried are unpredictable. V/C values are highly variable because full utilization of the approach may be prevented by outside conditions.

SOURCE: Transportation Research Board, *Highway Capacity Manual, HCM2000*, 2000.

TABLE 4.6-2: LEVEL OF SERVICE DEFINITIONS FOR UNSIGNALIZED INTERSECTIONS	
Level of Service	**Average Total Delay (seconds/vehicle)**
A	0 - 10.0
B	10.1 - 15.0
C	15.1 - 25.0
D	25.1 - 35.0
E	35.1 - 50.0
F	> 50.0
SOURCE: Transportation Research Board, *Highway Capacity Manual, HCM2000*, 2000.	

The "Intersection Capacity Utilization" (ICU) method of analysis was used to determine the intersection volume-to-capacity (V/C) ratio and corresponding level of service for the 11 signalized study intersections. The "Highway Capacity Manual 2000" method of analysis was used to determine the average delay (in seconds) and level of service for the only unsignalized intersection (Bleakwood Avenue and Floral Drive) in the study area. **Figure 4.6-1** shows the locations of the 12 study intersections for the proposed project.

Table 4.6-3 summarizes the existing weekday AM and PM peak hour V/C ratio and/or average vehicle delay, and corresponding LOS, at each of the study intersections based on the methodology described above. As shown in **Table 4.6-3**, all of the 12 intersections are currently operating at LOS C or better during both the AM and PM peak hours.



LEGEND:

Project Site

Study Intersections

1. Humphrey Ave./I-710 SB and Floral Dr.
2. Ford Blvd./I-710 NB and Floral Dr.
3. Monterey Park Rd. And Floral Dr.
4. Bleakwood Ave. And Floral Dr.
5. Bleakwood Ave. And Cesar Chavez Ave.
6. State Route 60 EB and Atlantic Blvd.
7. State Route 60 WB/1st St. And Atlantic Blvd
8. Collegian Ave. And Cesar Chavez Ave.
9. Atlantic Blvd. And Cesar Chavez Ave.
10. Collegian Ave. And Floral Dr.
11. Atlantic Blvd. And Floral Dr.
12. Atlantic Blvd. And Brightwood St.

N

APPROX. SCALE

0 0.15 .30 MILES

SOURCE: Cordoba Corporation, 2010

FIGURE 4.6-1

STUDY INTERSECTIONS

TABLE 4.6-3: EXISTING INTERSECTION LEVEL OF SERVICE

	AM Peak Hour		PM Peak Hour	
Intersection	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Humphrey Ave./I-710 SB and Floral Dr.	0.601	B	0.581	B
2. Ford Blvd./I-710 NB and Floral Dr.	0.639	B	0.761	C
3. Monterey Park Rd. and Floral Dr.	0.493	A	0.548	A
4. Bleakwood Ave. and Floral Dr. /a/	16	C	20.2	C
5. Bleakwood Ave. and Ave. Cesar Chavez	0.369	A	0.340	A
6. State Route 60 EB and Atlantic Blvd.	0.537	A	0.563	A
7. State Route 60 WB/1st St. and Atlantic Blvd.	0.651	B	0.679	B
8. Collegian Ave. and Ave. Cesar Chavez	0.538	A	0.465	A
9. Atlantic Blvd. and Ave. Cesar Chavez	0.609	B	0.642	B
10. Collegian Ave. and Floral Dr.	0.481	A	0.645	B
11. Atlantic Blvd. and Floral Dr.	0.490	A	0.496	A
12. Atlantic Blvd. and Brightwood St.	0.536	A	0.588	A

/a/ Strip controlled intersection; methodology does not calculate V/C. Delay is reported as total intersection delay, in seconds.
SOURCE: Cordoba Corporation, *East Los Angeles Community College Master Plan Update Traffic and Parking Analysis,* January 2010.

Existing Parking Conditions

Currently, there are six parking lots, two parking structures, and street parking along Avalanche Way and Avenida Cesar Chavez Frontage Road that exist on the ELAC campus. A total of 3,977 parking spaces are available on campus. **Table 4.6-4** shows the total number of spaces available in each parking facility.

Existing Parking Utilization

A parking utilization survey was conducted by Cordoba Corporation on September 14, 2009 between 7:00 a.m. and 9:00 p.m. to assess the use of the various parking facilities during the school session. Parking on the ELAC campus has three peak periods. The peak periods occur during the morning, from 10:00 a.m. to 12:00 p.m., during the afternoon from 3:00 p.m. to 5:00 p.m., and during the evening from 6:00 p.m. to 8:00 p.m. During the morning peak hour, approximately 63 percent (2,405 parking spaces) of the total available parking spaces were used. During the afternoon peak hour, approximately 53 percent (2,023 parking spaces) of the total available parking spaces were used. During the evening peak hour, approximately 51 percent (1,947 parking spaces) of the total available parking spaces were used. None of the lots reached maximum capacity during any of the peak periods. Of the lots greater than 100 spaces, the Southwest and Northeast lots reached a maximum utilization of 90 and 88 percent, respectively, during the morning peak period. **Table 4.6-5** shows the existing use of parking lots during peak hours.

TABLE 4.6-4: INVENTORY OF PARKING SPACE

Location	Number of Spaces					
	Student	**Faculty**	**Handicap**	**Car Pool**	**Motorcycle**	**Lot Total**
Avalanche Way	45		0			45
Baseball Field/a/	390					390
Avenida Cesar Chavez Frontage		28	1			29
Galleria		64				64
Northeast Lot	376		16			392
Parking Structure 3	1,480	350	34	12	6	1,882
Pool Lot	13	15				28
Southwest Lot	172		30			202
Stadium Concourse		160	14			174
Stadium Lot	769		2			771
Grand Total	**3,245**	**617**	**97**	**12**	**6**	**3,977**

/a/ Currently used as temporary parking.
SOURCE: Cordoba Corporation, *East Los Angeles Community College Master Plan Update Traffic and Parking Analysis,* January, 2010.

Existing Parking Demand Rates

The student enrollment in the fall of 2009 (at the time the inventory and parking survey were conducted) was approximately 20,128 students. Of the 3,245 spaces available to students, 2,176 were occupied during the morning peak period, 1,824 spaces were occupied during the afternoon peak period, and 1,920 spaces were occupied during the evening peak period. Of the 617 spaces available to faculty, 352 spaces were occupied during the morning peak period, 315 spaces were occupied during the afternoon peak period, and 185 spaces were occupied during the evening peak period. The surveys factored in peak period attendance and indicated there was a peak parking demand of 0.527 space per student during the afternoon peak period.

Previously Disclosed Impacts

The Final EIR for the 1998 Facilities Master Plan concluded that no unavoidable significant impacts would occur with regard to transportation and traffic. Mitigation measures were identified for potential impacts at three intersections, construction effects to an adjacent elementary school, and special event parking. Mitigation Measures T1 through T3 of the Final EIR would reduce the potential intersection impacts identified at three study intersections. Mitigation Measures T4 through T7 would reduce the construction-related impacts on the adjacent Lane Elementary School to a less-than-significant level. Mitigation Measure T8 would reduce the impact from special event parking at Weingart Stadium to a less-than-significant level.
The Addendum for the 2004 Facilities Master Plan Update (2004 FMPU) concluded that no unavoidable significant impacts would occur with regard to transportation and traffic. Two additional mitigation measures, Mitigation Measures A-T1 and A-T2, would maintain the previously identified three intersection impacts in the Final EIR at less-than-significant levels. Mitigation measures applicable to transportation and traffic included in the Final EIR would continue to be applicable to the 2004 FMPU.

TABLE 4.6-5: EXISTING PARKING LOT UTILIZATION

Type of Lot	Total Capacity	Morning Peak Hour		Afternoon Peak Hour		Evening Peak Hour	
		Number of Spaces Occupied	Percentage Utilized	Number of Spaces Occupied	Percentage Utilized	Number of Spaces Occupied	Percentage Utilized
Student Lots							
Avalanche Way	45	34	75%	31	69%	29	64%
Baseball Field	390	98	25%	66	17%	113	29%
Northeast Lot	376	331	88%	274	73%	290	77%
Parking Structure 3	1,448	927	64%	767	53%	738	51%
Southwest Lot	172	155	90%	129	75%	151	88%
Stadium Lot	769	523	68%	423	55%	454	59%
Subtotal	**3,200**	**2,176**	**68%**	**1,824**	**57%**	**1,920**	**60%**
Faculty/Staff/Guest Lots							
Cesar Chavez Frontage	28	25	91%	23	82%	11	38%
Galleria Structure	64	3	4%	1	1%	1	1%
Parking Structure 3 (3rd Level)	350	217	62%	207	59%	130	37%
Pool Lot	15	11	74%	8	56%	6	37%
Stadium Concourse	160	86	54%	90	56%	53	33%
Subtotal	**617**	**352**	**57%**	**315**	**51%**	**185**	**30%**
Total/*a*/	**3,817**	**2,405**	**63%**	**2,023**	**53%**	**1,947**	**51%**

***a*/** Handicap, Carpool, and Motorcycle parking were not included in the utilization calculations.
SOURCE: Barrio Planners Incorporated, *Interim Campus Plan with Construction Zones,* July 17, 2009*, and C*ordoba Corporation, *East Los Angeles Community College Master Plan Update Traffic and Parking Analysis,* January 2010.

THRESHOLDS OF SIGNIFICANCE

The City of Monterey Park has established criteria for determining the significance of traffic impacts of proposed projects within the City. Based on the criteria established by the City, a project is considered to have a significant traffic impact if the addition of project-related traffic increases the V/C ratio of an intersection by 0.05 or greater. For instance, if an intersection is projected to operate at a V/C ratio of 0.70 under the Cumulative Base condition, the intersection would be considered significantly impacted by the project if the Cumulative plus Project V/C ratio is 0.75 or greater. The City of Monterey Park has also stated the minimum acceptable level of service for intersections within the City jurisdiction is LOS C. Therefore, intersections that are caused to operate at worse than LOS C condition by project-related traffic are also determined to be significantly impacted.

IMPACTS

Areawide Traffic Growth

A review of historical traffic count data and forecast population figures provided by Kaku Associates, Inc. in 2000 predicted that traffic in the project area would increase at an approximate rate of 0.63 percent per year. Future ambient increase in the background traffic volumes due to regional growth and development are assumed to continue at this rate through completion of the proposed project in 2015.

Related Projects

Forecasts of the future year 2015 Cumulative Base traffic volumes were developed by adding the traffic expected to be generated by approved or proposed development projects in the area to the forecast ambient traffic growth described above. Listings of proposed or recently approved but uncompleted development in the project area were obtained from the City of Monterey Park. A review of these lists indicated that a total of five projects of notable size have been proposed or approved within the project area. These projects are listed and described in **Table 4.6-6**. This list does not include projects expected to generate fewer than ten PM peak hour trips, or development that is located outside an approximate two-mile radius from the East Los Angeles College campus. The cumulative traffic increase due to these projects are accounted for in the area wide traffic growth since such projects are not anticipated to have significant direct effects on project area traffic condition. The trip generation estimates for the related projects are listed in **Table 4.6-6**

TABLE 4.6-6: RELATED PROJECT TRIP GENERATION ESTIMATES

Project	Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Monterey Park Market Place Paramount Blvd.	Shopping Center	507,000 sf	19,366	257	164	421	880	954	1,834
North Atlantic Time Square South of I-110	Shopping Center	230,000 sf	9,872	144	93	237	413	447	860
Condominium Units	Apartments	210 units	1,392	33	85	118	88	52	140
Bank of Canton Garvey Ave./Moore Ave.	Walk-in Bank	6,000	939	12	12	24	99	100	199
Monterey Park Town Center Garvey Ave./Garfield Blvd.	Shopping Center	71,000 sf	3,047	45	28	73	128	138	266
Condominium Units	Apartments	109 units	718	11	45	56	44	24	68
Supermarket Addition 3425 E 1st St.	Supermarket	5,000 sf	558	10	6	16	29	29	58
Grand Total			**35,892**	**512**	**433**	**945**	**1,681**	**1,744**	**3,425**

SOURCE: *ITE Trip Generation Manual, 6th Edition,* and Cordoba Corporation, *East Los Angeles Community College Master Plan Update Traffic and Parking Analysis,* January 2010.

Project Trip Generation

The number of trips generated by the proposed project were estimated based on trip generation rates/equations provided in the Institute of Transportation Engineers' *Trip Generation, 6th Edition.* This

edition represents the most current rate with student-based trips. The resulting estimate of the number of trips associated with the proposed project is summarized in **Table 4.6-7**.

TABLE 4.6-7: EAST LOS ANGELES COLLEGE TRIP GENERATION ESTIMATES

Land Use	ITE Trip Rate Category	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Student Growth	Community College	3,012/a/	4,633	384	38	422	348	164	512

/a/Trip generation rate based on students.
SOURCE: *ITE Trip Generation Manual, 6th Edition,* and Cordoba Corporation, *East Los Angeles Community College Master Plan Update Traffic and Parking Analysis,* January 2010.

It should be noted that the proposed project calls for a total increase in enrollment of an additional 6,845 students, resulting in approximately 3,012 new day-time students. This is based on the current enrollment split of 44 percent daytime students and 56 percent evening and/or night students. The Final EIR for the 1998 Facilities Master Plan analyzed an increase of 3,511 new day-time students. The day time students have the greatest effect on peak hour traffic conditions, therefore, the potential traffic impacts of the proposed project are based on the number of daytime students. While the number of new nighttime students will be greater than the number of daytime students, they travel to and from the campus during off-peak periods of traffic.

Using the ITE trip generation equations, the 3,012 new day-time students are expected to generate a total of approximately 4,633 net new trips per day. Approximately 422 net new trips will occur during the AM peak hour, while 512 net new trips will result during the PM peak hour.

Intersection Analysis

Future Cumulative Base Traffic Conditions

The Year 2015 Future Base peak hour traffic volumes were analyzed to determine the V/C ratio and/or average vehicle delay, and LOS at each of the 12 study intersections for without project conditions. The results are shown in **Table 4.6-8**. Based on the standards established by the City of Monterey Park, one of the 12 analyzed intersections is projected to operate at an unacceptable level of service (LOS D, E, or F) under future conditions without the addition of project traffic. The Ford Boulevard/I-710 Northbound On Ramp and Floral Drive intersection operates at LOS D during the PM peak hour.

Future Cumulative Base Plus Project Traffic Conditions

The Year 2015 Future Base plus project peak hour traffic volumes were analyzed to determine the V/C ratio and/or average vehicle delay, and LOS at each of the 12 study intersections for with project conditions. The results are shown in **Table 4.6-8**. Based on the standards established by the City of Monterey Park, three of the 12 analyzed intersections are projected to operate at an unacceptable level of service (LOS D, E, or F) under future conditions with the addition of project traffic. One of the impacted intersections (Humphrey Avenue/ I-710 Southbound and Floral Drive) would still operate at acceptable level of service (LOS C or better). According to the City guidelines, since this impacted intersection is projected to operated at acceptable level of service, excess capacity would not be required for this location. For comparative purposes, the Final EIR found projected impacts at three of the 12 analyzed intersections.

The two remaining intersections are forecast to operate at unacceptable LOS D or worse during afternoon peak hour and require mitigation.

The two significantly impacted intersections are:

- Ford Boulevard/I-710 Northbound On Ramp and Floral Drive (AM and PM peak hour)
- Bleakwood Avenue and Floral Drive (PM peak hour)

The Bleakwood Avenue and Floral Drive intersection is unsignalized. Because the intersection would be impacted by the base plus project traffic conditions, a signal warrant analysis was conducted to see if a signalized intersection was required. The analysis was based on peak hour traffic volumes. The total vehicles per hour (both approaches) during the peak hour on Floral Drive (Major Street) is 1,274 and the total vehicles per hour (both approaches) during the peak hour on Bleakwood Avenue (Minor Street) is 145. Using the methodology provided in the 2003 Manual of Uniform Traffic Control Devices (MUTCD), the peak hour warrant was met in the second category, and a traffic signal would be warranted at this location.

TABLE 4.6-8 YEAR 2016 FUTURE BASE AND BASE PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Cumulative Base		Cumulative + Project		Project Increase in V/C or Delay	Significant Project Impact	With Mitigation		Project Increase in V/C
		V/C or Delay	LOS	V/C or Delay	LOS			V/C	LOS	
	AM	0.645	B	0.699	B	0.054	**Yes**	-	-	-
1. Humphrey Ave./I-710 SB and Floral Dr.	PM	0.627	A	0.681	B	0.054	**Yes**	-	-	-
	AM	0.688	B	0.748	C	0.060	**Yes**	0.605	B	-0.083
2. Ford Blvd./I-710 NB and Floral Dr.	PM	0.836	D	0.890	D	0.054	**Yes**	0.698	B	-0.138
	AM	0.529	A	0.532	A	0.003	No	-	-	-
3. Monterey Park Rd. and Floral Dr.	PM	0.594	A	0.621	B	0.027	No	-	-	-
	AM	16.8	C	19.5	C	2.7	No	0.557	A	n/a
4. Bleakwood Ave. and Floral Dr. /a/	PM	21.7	C	32.4	D	10.7	**Yes**	0.702	C	n/a
	AM	0.393	A	0.417	A	0.024	No	-	-	-
5. Bleakwood Ave. Ave. Cesar Chavez	PM	0.363	A	0.394	A	0.031	No	-	-	-
	AM	0.579	A	0.598	A	0.019	No	-	-	-
6. State Route 60 EB and Atlantic Blvd.	PM	0.618	B	0.634	B	0.016	No	-	-	-
	AM	0.706	C	0.708	C	0.002	No	-	-	-
7. State Route 60 WB/1st St. and Atlantic Blvd.	PM	0.770	C	0.795	C	0.025	No	-	-	-
	AM	0.575	A	0.610	B	0.035	No	-	-	-
8. Collegian Ave. and Ave. Cesar Chavez	PM	0.497	A	0.518	A	0.021	No	-	-	-
	AM	0.656	B	0.706	C	0.050	No	-	-	-
9. Atlantic Blvd. and Ave. Cesar Chavez	PM	0.710	C	0.743	C	0.033	No	-	-	-
	AM	0.514	A	0.536	A	0.022	No	-	-	-
10. Collegian Ave. and Floral Dr.	PM	0.689	B	0.727	C	0.038	No	-	-	-

TABLE 4.6-8 YEAR 2016 FUTURE BASE AND BASE PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Cumulative Base		Cumulative + Project		Project Increase in V/C or Delay	Significant Project Impact	With Mitigation		Project Increase in V/C
		V/C or Delay	LOS	V/C or Delay	LOS			V/C	LOS	
	AM	0.529	A	0.569	A	0.040	No	-	-	-
11. Atlantic Blvd. and Floral Dr.	PM	0.548	A	0.594	A	0.046	No	-	-	-
	AM	0.583	A	0.597	A	0.014	No	-	-	-
12. Atlantic Blvd. and Brightwood St.	PM	0.661	B	0.667	B	0.006	No	-	-	-

/a/ Strip controlled intersection; methodology does not calculate V/C. Delay is reported as total intersection delay, in seconds.
SOURCE: Cordoba Corporation, *East Los Angeles Community College Master Plan Update Traffic and Parking Analysis,* January 2010.

Congestion Management Program System Analysis

The Congestion Management Program (CMP) was created Statewide as a result of Proposition 111 and has been implemented locally by Metro. The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system. A total of 164 intersections are identified for monitoring on the system in Los Angeles County.

The CMP Traffic Impact Analysis Guidelines require analysis of all surface-street monitoring locations where the proposed project adds 50 or more peak hour trips. The CMP also requires all freeway segments to be analyzed where the proposed project adds 150 or more peak hour trips. Within the project area, there are no CMP monitoring locations that would be potentially impacted by the proposed project. In addition, the proposed project would not add 150 or more additional peak hour trips to any freeway segment. Therefore, no traffic impacts from the CMP are anticipated for the proposed project.

Future Parking Demand

With the completion of the proposed project in 2015, the student population is expected to increase by approximately 6,845 from the 2009 enrollment levels surveyed for the parking demand analysis. It is reasonable to assume that these additional students will exhibit parking-use profiles similar to those of the existing students. Thus, the future parking demand, as shown in **Table 4.6-9** was calculated by applying the existing parking demand rate to the future student population. It is assumed that the 6,845 new students would generate a total peak daytime parking demand of 2,916 parking spaces, an increase of 740 spaces.

Although student population was the most critical factor affected by parking demand for the proposed project, it was not the only one. The number of faculty/staff positions is also expected to increase as a result of the enrollment growth. As Kaku Associates Inc. described in their original Traffic and Parking Study for the Original Facilities Master Plan in 2000, the number of faculty and staff positions is expected to grow at a rate of approximately 1.67 percent per year. The number of guests/visitors was also assumed to increase by the same growth rate. The parking demand associated with their use was increased accordingly. This assumption would result in an approximately 10% increase in future parking demand for staff, faculty and visitors.

Adding faculty parking demands to the student demands summarized in **Table 4.6-9** would result in a projected year 2015 peak parking demand of 3,317 spaces during the morning period. Total afternoon parking need would be about 2,829 spaces and the evening campus use would require a total of 2,808 spaces. There exist 3,977 available parking spaces in a combination of surface and structured facilities at ELAC at the time of this report. The existing parking inventory of ELAC would not contain the temporary baseball field lot of 390 spaces, but would easily accommodate the estimated parking demand in 2015. In addition to the existing parking lot inventory, the proposed project includes a four-level parking structure with a capacity of 1,574 spaces which guarantees accommodation of future parking demand. Therefore, no impacts from parking are anticipated for the proposed project.

TABLE 4.6-9: FUTURE CAMPUS PARKING DEMAND					
Period	**Existing Parking Demand**	**2009 Head Count on Campus**	**Spaces/Student**	**2015 Head Count on Campus**	**Future Parking Demand**
Students					
Morning Peak Period	2,176	7,402	0.294	9,919	2,916
Afternoon Peak Period	1,824	3,460	0.527	4,637	2,444
Evening Peak Period	1,920	4,665	0.412	6,251	2,574
Total (Students, Faculty, Staff, Visitors)					
Morning Peak Period	2,405				3,317
Afternoon Peak Period	2,023				2,829
Evening Peak Period	1,947				2,808
Existing Total Parking	**3,977**	**Future Peak Parking Demand**			**3,317**
SOURCE: Cordoba Corporation, *East Los Angeles Community College Master Plan Update Traffic and Parking Analysis,* January 2010.					

MITIGATION MEASURES

Mitigation measures are numbered sequentially following previously identified mitigation measures prescribed in the Final EIR for the 1998 Facilities Master Plan and the Addendum for the 2004 Facilities Master Plan Update.

Mitigation measures were developed for those locations where it was deemed feasible and their effectiveness was analyzed. The potential measures were designed to increase capacity and included operational improvements and potential physical improvements. Physical improvements involving right-of-way acquisition were not considered since the project area is a relatively built-up area with little or no easily available right-of-way for roadway improvements.

The implementation of these mitigation measures or other suitable mitigation measures will depend upon the availability of funding and the willingness of applicable agencies to implement measures in an appropriate timeframe. If these mitigation measures cannot be undertaken, then the related impacts would be deemed significant and unavoidable.

T9 Restripe the existing single lane northbound approach on Ford Boulevard to two lanes. The left lane would become a shared left and through movement and the right lane would be a shared right and through movement.

T10 Install a traffic signal system at the Bleakwood Avenue and Floral Drive intersection.

LEVEL OF IMPACT AFTER MITIGATION

Intersection Impacts

Implementation of Mitigation Measure **T9** would reduce the project-specific impacts at the Ford Boulevard/Northbound I-710 and Floral Drive intersection to a less-than-significant level. Implementation of Mitigation Measure **T10** would reduce the project-specific impacts at the Bleakwood Avenue and Floral Drive intersection to a less-than-significant level.

Parking Impacts

Impacts associated with parking are considered less-than-significant without mitigation.