3.0 ENVIRONMENTAL ANALYSIS

PURPOSE

In accordance with CEQA §15123, an Environmental Impact Report (EIR) is required provide a discussion of a proposed project's environmental setting and potential environmental impacts associated with all project-related actions, including development (construction) and operations. The environmental topics evaluated in this EIR were identified by the California State University, Northridge Office of Facilities Planning, Design, and Construction, through the Notice of Preparation (NOP) and scoping process. Technical studies prepared in support of the analysis presented in this EIR are provided in Appendices to the Draft EIR.

The topical subsections in **Section 3.0** are organized as follows:

- **Introduction.** Overview of the environmental topic discussed in a given section, including the scope of the issue, project-specific and cumulative significance determinations, and the level of significance after mitigation.

- **Existing Conditions.** Description of existing conditions, including technical background at the time of NOP issuance, and prior to construction and operation of 2005 Master Plan components.

- **Regulatory Setting.** Summary of federal, state, or local policies and regulations as applicable, governing a given environmental topic.

- **Significance Criteria.** The significance criteria or threshold(s) against which impacts resulting from the proposed 2005 Master Plan are measured, to determine whether such impacts will be less than significant or potentially significant as compared to existing conditions.

- **Environmental Impacts.** Analysis of the beneficial and adverse impacts resulting from implementation of the proposed 2005 Master Plan, conducted by measuring impacts against applicable significance criteria or thresholds and existing conditions.

- **Mitigation Measures.** Appropriate and feasible measures intended to avoid or reduce significant adverse project impacts as measured against applicable significance criteria or thresholds.

- **Cumulative Impacts.** Characterization of project contributions to cumulatively considerable impacts, defined as the combined effects of known past, present, and future "related projects" in the project area that could affect a given resource. Not every related project affects every environmental resource; some impacts may be more site-specific while others affect a more general area or resource. Accordingly, different related projects may combine to result in cumulative impacts on different resources.

- **Unavoidable Significant Impacts/Impacts After Mitigation.** Impacts of the proposed 2005 Master Plan that would remain significant even after mitigation implementation.

3.1 AESTHETICS

3.1.1 INTRODUCTION

This section evaluates the potential impacts of the proposed project on the visual character of the California State University, Northridge (CSUN) campus, and the surrounding area. The following analysis is based on the 2005 Master Plan, visual reconnaissance of the project area, and photographs of the campus.

3.1.2 METHODOLOGY

Characterizing aesthetics can be highly subjective. Therefore, the evaluation of aesthetic resources requires the application of a process that objectively identifies the visual features of the landscape, their importance, and the sensitivity of the receptors that view them. This section characterizes the existing visual character of the CSUN campus as well as the nature of views of and from campus, and assesses changes to those resources proposed by the 2005 Master Plan, particularly the proposed design guidelines and Landscape Plan. A policy analysis was also conducted to determine Master Plan consistency with relevant California State University and City of Los Angeles policies for potential on-campus and off-site impacts, respectively.

Light and glare impacts are also evaluated through an evaluation of proposed Master Plan Lighting Plan changes to the present nighttime lighting environment.

3.1.3 EXISTING CONDITIONS

Regional Character

The CSUN campus is located in the Northridge Community Plan area of the City of Los Angeles. The Northridge Community Plan area encompasses approximately 6,350 acres within the San Fernando Valley. The San Fernando Valley is a largely urban and suburban area characterized by flat topography surrounded by the Santa Monica and Santa Susana Mountains. Northridge is surrounded by the communities of Granada Hills to the north, Reseda to the south, Chatsworth to the north and west, and North Hills to the east. Single-family residential dwellings account for the majority of the Northridge Community Plan area land uses. The Northridge community is also characterized by multi-family dwellings and commercial land uses along Tampa Avenue, Reseda Boulevard, and Balboa Boulevard.

Campus Character

The 353-acre CSUN campus is a largely self-contained, suburban campus. The northern portion of campus is an elongated rectangle bounded by Devonshire Street to the north, Halsted Street on the south, Zelzah Avenue to the east, and Lindley Avenue to the west, although only the portion of campus north of Lassen Street has traditionally been known as the North Campus. The southern campus is nearly square and bounded by Nordhoff Street to the south, Zelzah Avenue to the east, and Darby Avenue to the west. In broad terms, the CSUN campus is moderately densely developed with numerous academic buildings, administrative buildings, parking facilities, and student housing, set amid athletic fields, quadrangles, and other landscaped areas and open space, and connected by a network of campus roadways and pedestrian walkways. The number of parking structures, surface lots, and campus entryways from surrounding streets reflect the campus's predominantly "commuter college" history, although some students are housed on campus.

The architecture throughout the campus is varied in style and buildings range in height from one to eight stories. Many of the buildings are rectilinear and recall a modified Prairie Style, characterized by a broad, horizontal appearance, low-pitched or flat roofs, and deep overhanging eaves. A number of buildings are surfaced with buff-colored brick and feature large expanses of plate glass and broad, expansive entries and forecourts. Other common building surface treatments on campus include stucco, concrete, stone, and stainless steel. A few buildings feature central atriums, including the Business and Economics, Music, and Engineering buildings.

Campus buildings are typically oriented to pedestrian access and face adjacent quadrangles or walkways, rather than major campus roadways. While the campus possesses fairly abundant open space, much of the open space is casual or informal and is not generally enclosed or defined by adjacent buildings or landscaping. Aside from athletic and recreational facilities, the major open space areas on campus are Sierra Quadrangle and Oviatt Lawn, located in front of the Oviatt Library at the physical center of the campus. The Quadrangle and Oviatt Lawn, which comprise a network of intersecting walkways interspersed with small lawns, are surrounded by the campus library, bookstore, and several academic buildings surround the Sierra Quadrangle and Oviatt Lawn. These areas serve as the sites of orientation and graduation ceremonies.

Characteristic landscaping throughout the campus includes grassy courtyards crossed by a network of pathways, mature trees, and foundation plantings surrounding all or a portion of most buildings. Distinctive landscaping elements include the historic Orange Grove on the southeast quadrant of campus, a botanic garden, and large, mature trees along Magnolia Walk, which extends from Oviatt Library to parking facilities along the west side of campus. Despite the presence of mature trees, however, the

campus has an acknowledged shortage of shaded outdoor gathering spaces or seating areas, which limits the utility of outdoor open space during the hottest months of the year.

The main entrance to the campus is located at the intersection of East University Drive and Nordhoff Street. Currently, this entrance is identified by brick monument signage but lacks additional landscaping, lighting, or other prominent features, as shown in **Figure 3.1-1, Site Photos 1 & 2**, Photo 1. Additional entrances to the campus are provided along most of the streets that border or enter the campus, but most lack significant identifying symbols. Two quasi-formal entrances are provided via Prairie Street on the west side of the south campus. Signage serves to identify the campus entry at Zelzah Avenue and Nordhoff Street.

Campus Precincts

The Master Plan divides the campus into eight functional precincts, each reflecting the academic and administrative facilities and activities concentrated therein. For purposes of this analysis, the aesthetic character of each precinct is described below.

The South Campus Arts Precinct comprises the southern-central portion of the campus along Nordhoff Street. This part of campus is quite visually varied, and includes the Orange Grove, Monterey Hall, open space, the campus bookstore, a faculty office building, the music building, Nordhoff and Manzanita Halls, and the surface parking lot at the southwest corner of Nordhoff Street and Darby Avenue, all bisected by East University Drive. The main entry to the University campus is on Nordhoff Street within this precinct. The Orange Grove, a major historic campus feature, is set somewhat apart from the surrounding pedestrian network of walkways. The buildings and landscaping in this precinct are consistent with the general description of campus already provided.

The Academic Core Precinct is north of the South Campus Arts Precinct and encompasses the area south of North University Drive/Plummer Street, west of East University Drive/Lindley Avenue, and east of West University Drive/Etiwanda Avenue. As its name suggests, the Academic Core Precinct contains the majority of academic buildings on campus and is the most densely developed part of campus. Buildings include the Sierra Complex, Science Buildings 1 through 4, Student Services, the Oviatt Library, Sequoia Hall, Sagebrush Hall, Education and Business and Engineering. Sierra Quadrangle and Oviatt Lawn form the heart of this precinct.

The West Gateway Precinct is bounded by Darby Avenue to the west, West University Drive/Etiwanda Avenue to the east, Dearborn Street to the south, and Vincennes Street to the north. This precinct includes the recently completed B3 parking structure and University Hall; the landscaping around University Hall makes use of a distinct palette of native grasses. The Prairie Street entry, one of the major

points of campus entry, is located in this precinct and is indicated with signage. The new Parking and Public Safety Building is currently under construction at the southeast corner of Darby Avenue and Prairie Street. Since the West Gateway Precinct is seen by most campus visitors and is the primary point of entry for most students and University employees, it is a visually prominent part of campus.

The East Gateway Precinct is bordered by East University Drive/Lindley Avenue to the west, Zelzah Avenue to the east, the South Campus Arts Precinct to the south and Jacaranda Way to the north. Facilities in this precinct include playfields, the University Student Union, and buildings housing academic, administrative and student support facilities. Distinctive features include the Botanic Garden, observatory, and small pond. A secondary campus entryway at Zelzah Avenue and Dearborn Street provides access from the east and is marked with low-key signage and landscaping.

The Instructional/Athletics/Recreation Precinct is bordered by the East Gateway Precinct to the south, the University Park Student Housing complex to the north, East University Drive/Lindley Avenue to the west and Zelzah Avenue to the east. This precinct is generally more open than other parts of campus, since it houses most of the campus recreational and athletic fields (including baseball, softball and soccer fields), tennis courts, and a track. Athletic field amenities include bleachers, press boxes, equipment storage, and other typical features. Buildings in this precinct include Redwood Hall and the Brown Center. The athletic fields are in fair condition; the competition soccer field is in good condition.

The University Park Student Housing Precinct is located north of the Instructional/Athletics/Recreation Precinct. It is bordered by Lassen Street to the north, East University Drive/Lindley Avenue to the west, and Zelzah Avenue to the east. The student housing comprises buildings between two and three stories in height and designed in a modified Mediterranean style, with stucco surface treatments and tiled roofs. Landscaping includes common lawn areas, mature trees, and walkways defined by hedges. The entrances to this area are on Zelzah Avenue and on Lassen Street, but lack significant or distinctive signage.

The Northwest Precinct encompasses the area bordered by Vincennes Street and North University Drive/Plummer Street to the south, Halsted Street to the north, Darby Avenue to the west, and West University Drive and East University Drive to the east. Prominent features include the Art and Design Center, the campus Physical Plant maintenance facility, a parking structure, and surface parking. The Art and Design Center incorporates a distinctive landscape palette and building colors that distinguish it from the rest of the campus.

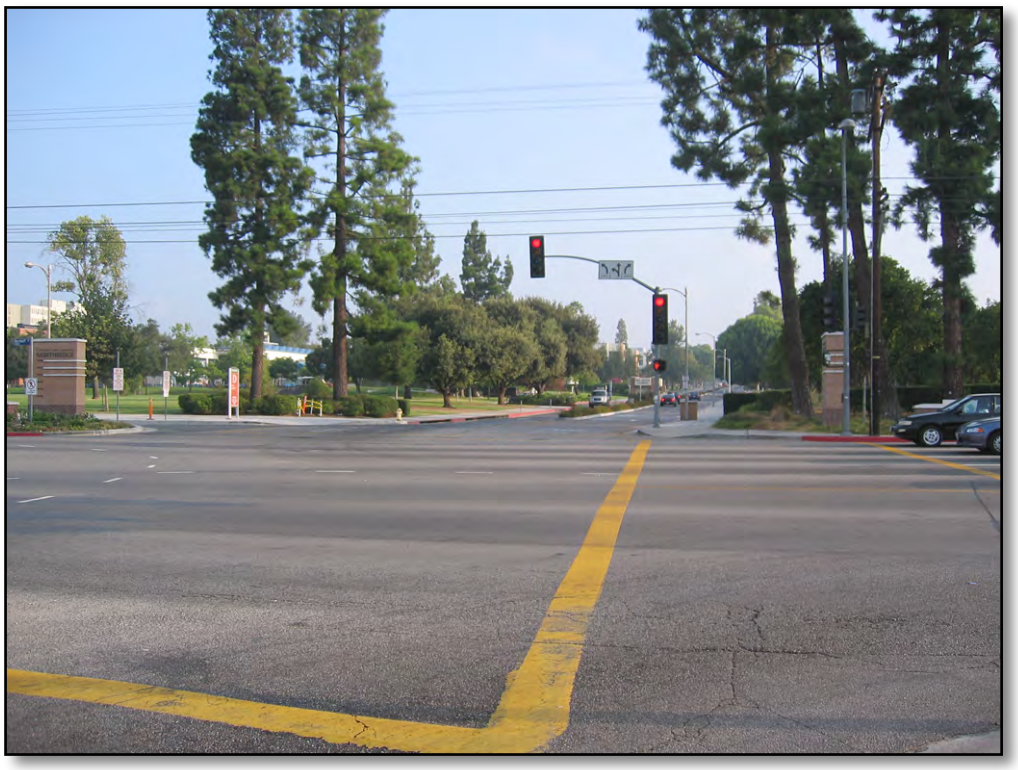

Photo 1

Photo 2

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-1**

Site Photos 1 & 2

750-001•10/05

The North Campus Facility/Staff Housing Village Precinct is the northernmost portion of campus and encompasses the area north of Lassen Street, south of the MiniMed facility, and bordered by Zelzah Avenue to the east and Lindley Avenue to the west. Large areas of this portion of campus are currently vacant and it is the least densely developed part of campus. Development includes the 10-building University Village Apartment complex and community center, which are in fair condition; large areas of surface parking for residential and commuter students; and a playfield/athletics complex south of the MiniMed facility. Landscaping in this precinct is relatively minimal, and the landscaping that does exist, including trees in the University Village surface parking lot, street trees, and trees and common lawn areas surrounding University Village Apartments, is not as mature or formally manicured as elsewhere on campus.

Views of Campus from Off-Site Vantages

Nordhoff Street

Nordhoff Street is designated as a Major Highway – Class II in the City of Los Angeles General Plan, with four through-lanes, two parking lanes, and a median/left-turn lane. It runs east–west through the San Fernando Valley and is the primary access route between the University and Interstate 405 (I-405). The formal entrance to the CSUN campus is located at the intersection of Nordhoff Street and East University Drive. West of the campus entrance, Nordhoff Street is lined with predominantly community-serving commercial land uses housed in one- and two-story buildings. In addition, the southwest and southeast corners of Nordhoff Street and Lindley Avenue, opposite the campus entrance, are developed with a mini-mall and a gas station, respectively. Single-family homes line the south side of Nordhoff Street, east of the campus entrance. **Figure 3.1-1** (Photo 1) shows the main campus entrance. **Figure 3.1-1** and **Figure 3.1-2, Site Photos 3 & 4** (Photos 2 and 3, respectively), depict views of the campus from vantage points along Nordhoff Street from the east and west, respectively. As shown in Photos 1 and 3, the campus can generally be distinguished from surrounding land uses but is not prominently or formally identified with consistent landscaping or other visual cues. Photo 2 shows the southeastern corner of campus.

Zelzah Avenue

Zelzah Avenue runs north and south through the San Fernando Valley and forms the eastern boundary of the CSUN campus. The eastern side of Zelzah Avenue is characterized by a mix of single- and multi-family residential land uses. **Figure 3.1-2**, **Figure 3.1-3, Site Photos 5 & 6**, and **Figure 3.1-4, Site Photos 7 & 8** (Photos 4 through 7), show the campus as viewed from the east side of Zelzah Avenue. Photo 4 was taken between Zelzah Avenue and Bertrand Street and shows the existing G1 parking lot and Monterey Hall. Photo 5 was taken at the southeast corner of Zelzah Avenue and Prairie Street and shows the

entrance to the G4 parking lot and Redwood Hall. Views of the north campus are shown in Photos 6 and 7. Photo 6 was taken near Fullerfarm Street and shows student housing. Photo 7 was taken from the northeast corner of Zelzah Avenue and Fullerfarm Street, and shows the North Campus Stadium and the Medtronic MiniMed complex.

Devonshire Street

Devonshire Street is a major arterial running east and west through the San Fernando Valley and is the northern boundary of the north campus. Commercial, single- and multi-family land uses line Devonshire Street in the vicinity of campus. **Figure 3.1-4** and **Figure 3.1-5, Site Photos 9 & 10** (Photos 8 and 9), depict views of the CSUN campus from vantage points along Devonshire Street. Photo 8 was taken at the northeast corner of Devonshire Street and Zelzah Avenue. Photo 9 was taken at the northwest corner of Devonshire Street and Lindley Avenue. Both photographs include the Medtronic MiniMed complex.

Lindley Avenue

Lindley Avenue runs north and south and represents the western border of the north campus. In the campus vicinity, Lindley Avenue is characterized by single- and multi-family residences. **Figure 3.1-5** and **Figure 3.1-6**, **Site Photos 11 & 12** (Photos 10 through 12) show views of the CSUN campus from uses off site. Photo 10 shows parking lot F12 and was taken at the northwest corner of Lindley Avenue and Lamarsh Street. Photo 11 was taken at the southwest corner of Lindley Avenue and Herbold Street. As shown, the landscaping bordering the campus partially screens views of campus from this portion of Lindley Avenue. Photo 12 shows the southern terminus of the northern portion of Lindley Avenue, campus signage, playfields, the Brown Center, and Redwood Hall.

Halsted Street

Halsted Street runs east and west and is the partial northern border of the south campus. Land uses on the northern side of Halsted Street include single-family residences. **Figure 3.1-7, Site Photos 13 & 14** (Photos 13 and 14), show views of the campus from off-site uses along Halsted Street. Photo 13 was taken on the northwest corner of Halsted Street and Lindley Avenue and shows a service building and the Art and Design Center. Photo 14 shows student parking lot B6 and a portion of University structures west of the lot.

Photo 3

Photo 4

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-2**

Site Photos 3 & 4

750-001•10/05

Photo 5

Photo 6

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-3**

Site Photos 5 & 6

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Photo 7

Photo 8

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-4**

Site Photos 7 & 8

750-001•10/05

Photo 9

Photo 10

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-5**

Site Photos 9 & 10

750-001•10/05

Photo 11

Photo 12

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-6**

Site Photos 11 & 12

750-001•10/05

Photo 13

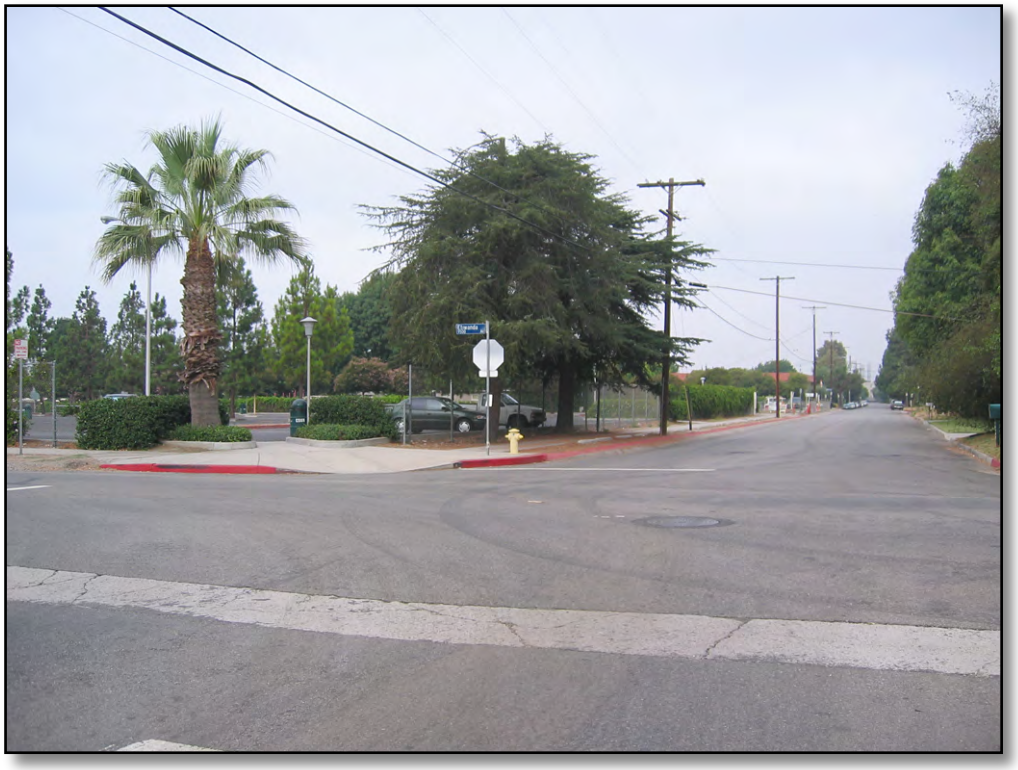

Photo 14

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-7**

Site Photos 13 & 14

750-001•10/05

Reseda Boulevard

Reseda Boulevard is a major arterial and runs north and south through the San Fernando Valley. It is characterized by predominantly commercial and multi-family residential land uses. Access to the campus is provided by four streets that run east and west and intersect Reseda Boulevard. Plummer, Vincennes, Prairie and Dearborn Streets are characterized by residential, commercial, and University uses. **Figure 3.1-8, Site Photos 15 & 16**, and **Figure 3.1-9, Site Photos 17 & 18** (Photos 15 through 18), show the CSUN campus from the west side of the intersection of each of these streets, respectively. As shown in these photographs, there are few features indicating the presence of the CSUN campus.

Long Range Views

Long-range views from campus vantage points and of the campus from off-site locations are limited by the relatively flat topography and presence of relatively dense residential and commercial development in the vicinity of the University. The Santa Susana and Santa Monica Mountains and other distant features cannot generally be seen from the CSUN campus at ground level.

3.1.4 REGULATORY SETTING

Northridge Community Plan

The CSUN campus is located in the Northridge Community Plan area of the City of Los Angeles. The City of Los Angeles General Plan consists of the General Plan Framework, which is a long range, Citywide comprehensive growth strategy, and separate Community Plans, which make up the land use element of the General Plan. These Community Plans further refine the General Plan and are intended to promote an arrangement of land uses, streets, and services that meets the objectives of the General Plan. The proposed project is located within the Northridge Community Plan Area. The Northridge Community Plan defines planning objectives to maintain the distinctive character of this community.

The Northridge Community Plan identifies the following policies regarding signage:

- Establish a consistent design for all public signage, including fixture type, lettering, colors, symbols and logos designed for specific areas or pathways;
- Provide for distinctive signage which identifies principal entries to unique neighborhoods, historic structures, public buildings, and parks;
- Ensure that public signage complements and does not detract from adjacent commercial and residential uses;
- Provide for signage which uniquely identifies principal commercial areas; and
- Discourage billboards and off-site advertising.

City of Los Angeles Street Tree Policies

Street trees within the City of Los Angeles are under the jurisdiction of the Department of Public Works Bureau of Street Services. The following guidelines apply to all new street trees planted within the City:

- Trees shall be 15-gallon size, at minimum;
- Trees shall be installed with a 10-foot galvanized metal tree stake (or two 10-foot wooden stakes);
- Trees shall be secured to the stake with two rubber tree ties in accordance with standard specifications;
- Root control barriers shall be installed on all sides of the root ball in accordance with standard specifications;
- The permitee shall agree to maintain the tree for a five-year establishment period and replace if necessary;
- The permitee shall keep the soil around the tree moist by watering the tree with 10–20 gallons of water every five days for the first eight weeks after the tree is planted. Thereafter, the tree should be watered every 20 days with a minimum 20 gallons of water; and
- The permitee shall remove the tree stakes within three years or after the tree is established, whichever comes first.

When street trees are installed within a City right-of-way, it is Bureau policy to offer a consultation in order to determine appropriate tree species, planting site and tree spacing for an individual site.

California State University Design Standards

CSUN is state property and under the jurisdiction of the California State University (CSU) Board of Trustees. The University is responsible for meeting all CSU design requirements in compliance with the State University Administrative Manual (SUAM), the California Public Contract Code (CPCC), and the California Building Code (CBC). Master Plans for all CSU campuses are designed to comply with CSU policies. Approval and adoption of the CSUN Master Plan by the CSU Board of Trustees would demonstrate consistency. All future development on the CSUN campus would be required to be consistent with the guidelines of the CSUN Master Plan.

Photo 15

Photo 16

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-8**

Site Photos 15 & 16

750-001•10/05

Photo 17

Photo 18

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.1-9**

Site Photos 17 & 18

750-001•10/05

3.1.5 SIGNIFICANCE CRITERIA

According to the *California Environmental Quality Act (CEQA) Guidelines* contained in Appendix G, a project could result in a potentially significant impact on aesthetics if it would:

AES-1: Have a substantially adverse effect on a scenic vista.

AES-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

AES-3: Substantially degrade the existing visual character or quality of the site and its surroundings.

AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.6 ENVIRONMENTAL IMPACTS

Program-Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next 30 years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents (FTEs) over the next 30 years, as well as accommodate the evolving pedagogic needs of the University's academic, administrative, student support, and campus support department and programs.

The 2005 Master Plan proposes a program of new academic, administrative, and student support facilities, parking facilities, vehicular and pedestrian circulation improvements, and new and enhanced open space and landscape improvements created through the siting of proposed new facilities. The Landscape Master Plan, a part of the campus Master Plan, has been developed to complement and reinforce the features of the Master Plan. **Figure 3.1-10, Open Space and Landscaping**, shows the open space and landscaping component of the CSUN Master Plan. The Landscape Master Plan addresses the natural and paved materials located within campus open space, with the objective of providing an integrated approach to the design of open space areas and to the use of these materials.

The existing campus landscape is characterized by a generous amount of open space comprising a collection of quadrangles, courtyards and plazas, the Orange Grove, and a network of tree-lined promenades that provide a strong pedestrian-oriented framework to the campus. The proposed Landscape Master Plan proposes to maintain the existing more formal landscape character of the campus' primary courtyards and quadrangles that are presently used as gathering places and activity areas for the

University, while encouraging the use of a more sustainable and informal landscape approach for the campus edges and other open space areas. The quadrangles and courtyards would be planted with shade trees and be furnished with convenient seating, appropriate lighting, and other site amenities. The campus edges and informal open spaces would be characterized by a more pastoral landscape, reminiscent of the native landscape of Southern California, with native trees such as oaks, sycamores, and pines, and plantings of native accent and flowering plants and shrubs.[1] This "signature perimeter landscaping" is intended to convey a strong sense of identity for the University, clearly distinguishing the campus and its boundaries from the community, while introducing a landscaped buffer between campus and surrounding land uses.

AES-1: Would the project have a substantially adverse effect on a scenic vista?

AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No scenic vista has been identified in the local land use plan at or near the campus.[2] As discussed above, the campus does not always present a visually cohesive or consistent appearance from off-site vantages, and points of entry tend to be marked with minimal signage and varied landscaping. The campus currently contains a number of multi-story structures and mature trees that obstruct views across the site. The CSUN Master Plan would develop the campus with new structures of a similar nature. The Master Plan proposes signature perimeter landscaping and the creation of a view window to the center of campus from Nordhoff Street. The perimeter landscaping would serve to clearly distinguish the campus and its boundaries from the community, while introducing a landscaped buffer between campus and surrounding land uses. **Figure 3.1-11, Roadway Landscaping**, shows representative cross-sections of proposed street tree treatments on campus and in surrounding areas. All street trees proposed along off-campus City rights-of-way would comply with applicable City of Los Angeles street tree policies and guidelines. As such, the views from vantage points adjacent to the site would remain unchanged from existing conditions or would be enhanced. Therefore, impacts on scenic vistas would be less than significant.

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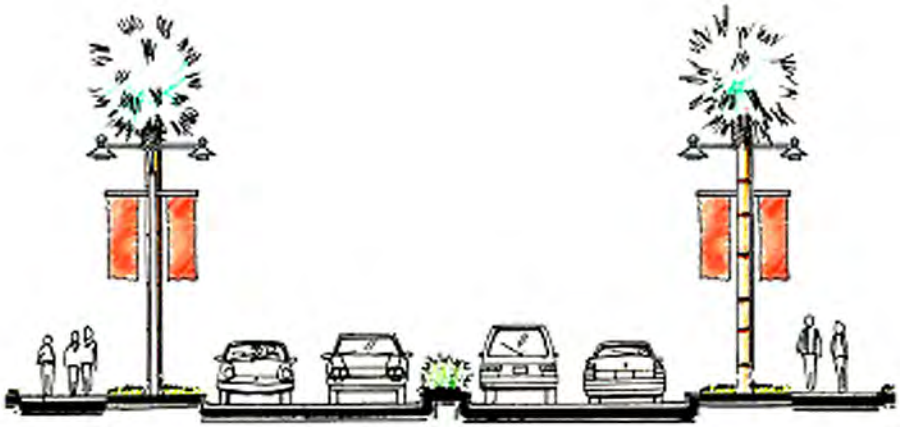
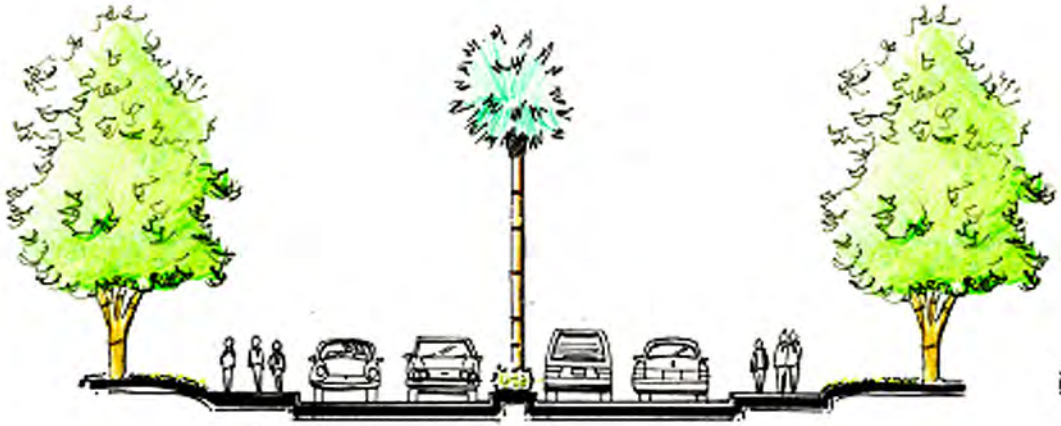
1 The CSUN Master Plan proposes to use signature perimeter landscaping around the entire perimeter of the campus with the exception of the Medtronic MiniMed complex, which has already been landscaped with a distinctive palette.

2 City of Los Angeles General Plan, Northridge Community Plan, adopted July 10, 1996.

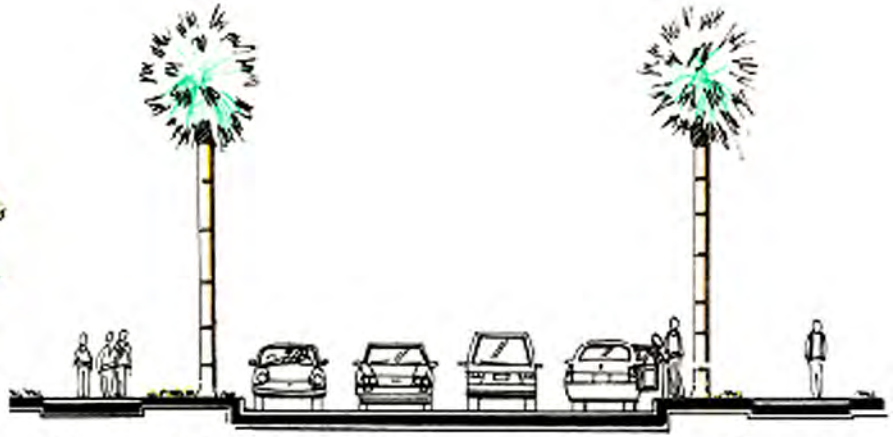
NORDHOFF STREET [SECTION]



INTERNAL CAMPUS ROADWAY [SECTION]



WEST UNIVERSITY DRIVE [SECTION]



PRAIRIE, VINCENNES, PLUMMER & DEARBORN STREETS FROM DARBY TO RESEDA [SECTION]

SOURCE: AC Martin Partners – October 2005

FIGURE **3.1-10**

Roadway Landscaping

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SOURCE: AC Martin Partners, Inc. – May 2005

FIGURE **3.1-11**

Orange Grove Arts Walk

750-001•11/05

State Route 118 (SR-118), located approximately 2 miles north of the campus, is not a state-designated scenic highway. SR-118 is a designated scenic highway in the City of Los Angeles.[3] However, due to the relatively flat topography of the San Fernando Valley, the campus is not visible from the highway, and the highway is not visible from the campus. No impacts to state or city scenic highways would occur.

AES-3: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction

Construction of the components of the CSUN Master Plan would expose neighboring land uses to construction equipment, incomplete structures, stockpiled cut material, and areas in landscaping transition. This could result in short-term impacts on views from surrounding uses. The short-term visual impacts of construction operations are considered unavoidable, as little can be done to improve the aesthetics of a large construction site; however, construction activities would be temporary in nature. Further, construction of the Master Plan would occur incrementally over 30 years and would not involve the simultaneous construction of many buildings. In addition, lighting for construction purposes, if needed, would be directed toward the work site and shielded as much as feasible. Aesthetic impacts during construction activities would be less than significant.

Campus Visual Resources

Notable visual resources on the CSUN campus include the historic Orange Grove, Botanic Garden, and Magnolia Walk, a walkway extending from the Oviatt Library lined with large, mature trees. Under the Master Plan, the Orange Grove would be preserved and incorporated into the proposed Orange Grove Arts Walk, a lighted, paved pathway traversing the grove between the proposed University Club/Alumni Center and proposed Performing Arts Center. Trees in the Orange Grove may be pruned to increase visibility and create sightlines within the grove. A sketch of the proposed Arts Walk is provided in **Figure 3.1-12, Orange Grove Arts Walk**. The proximity of this building to the Botanic Garden may require removal of some of the trees in the southern portion of the garden. Since the Botanic Garden is an instructional space maintained by the College's Biology Department, removal of existing trees will be reviewed with the College during the design process. Magnolia Walk would remain unchanged under the Master Plan.

The CSUN campus currently contains many mature trees. The Master Plan does not address individual trees on the campus, since that level of detail is outside the Plan's scope. As implementation of the Master Plan would take place over the course of 30 years, the preservation of specific trees on campus

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3 City of Los Angeles General Plan, Transportation Element, Map E, Scenic Highways in the City of Los Angeles, adopted by City Council September 8, 1999. Prepared by the Citywide Transportation Section, City of Los Angeles Planning Department, Graphics Services Section, June 1998. <http://cityplanning.lacity.org>

would be addressed in project-specific landscaping plans. Future landscaping plans would consider the aesthetic and biological value of individual mature trees and preserve those determined to be important.

The Master Plan is intended to preserve important visual resources, such as Magnolia Walk, and, in certain instances, would enhance existing aesthetic resources on campus, such as perimeter landscaping and the Orange Grove Arts Walk. For these reasons, Master Plan implementation is not anticipated to substantially degrade the visual character or quality of the campus. Impacts would be less than significant.

Open Space

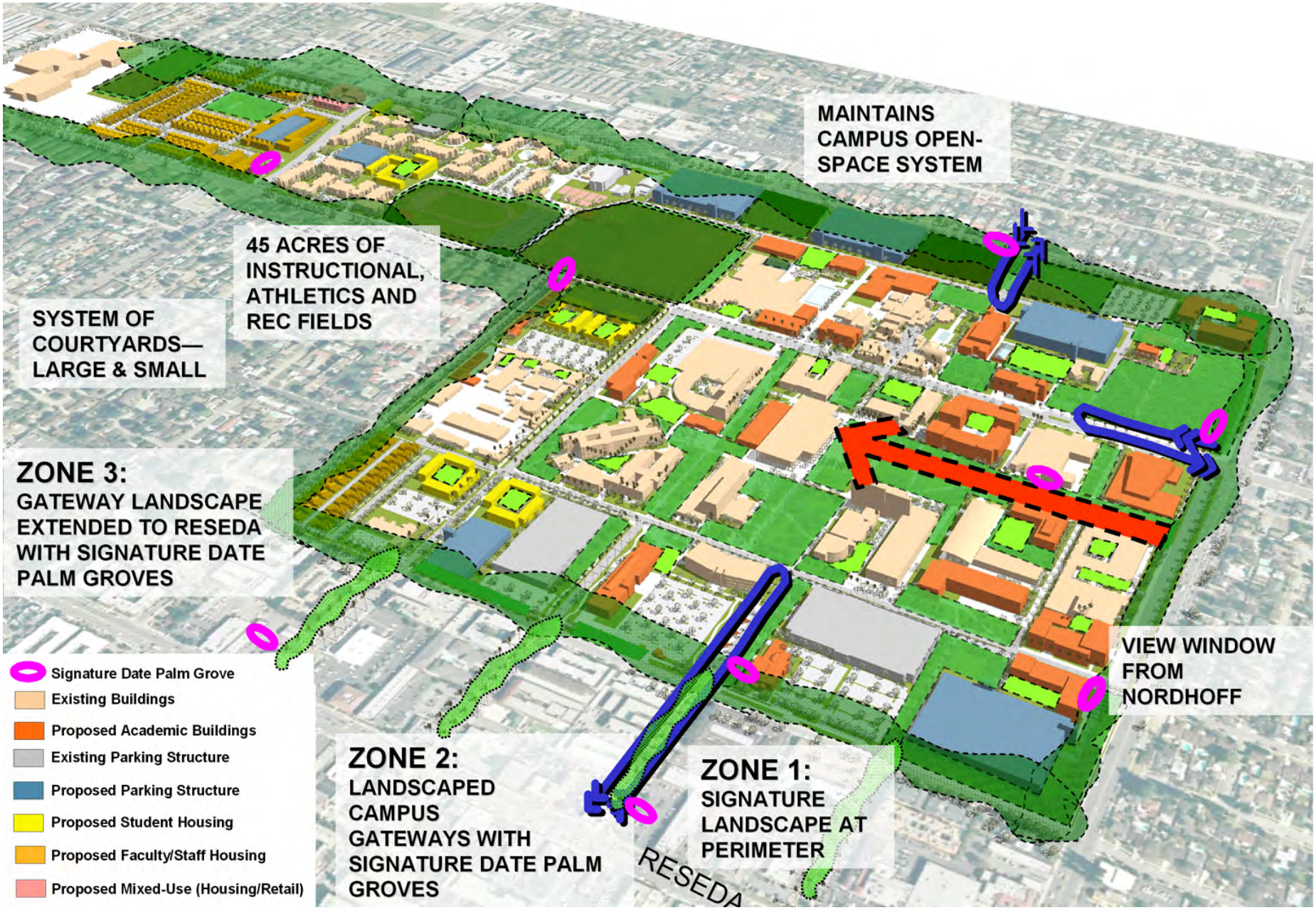
The CSUN Master Plan would increase the density of uses on campus to accommodate a growing student population; however, the plan also proposes to increase the amount of open space on the campus. This would be accomplished through the addition of playfields, creation of quadrangles and courtyards, strategic siting of proposed buildings, and replacement of parking lots with multi-story parking structures. **Figure 3.1-10**, shows the open space and landscaping component of the CSUN Master Plan.

Landscaped courtyards would be located throughout the academic core. These courtyards would function as gathering areas, providing seating, shade, and sunny areas. They are also intended to unify the campus and support the collegiate atmosphere.

Since the Master Plan would increase the number of usable public outdoor gathering places and enhance existing open space resources, impacts on the visual character are anticipated to be beneficial and, therefore, less than significant.

Campus Precincts

The objective of the 2005 Master Plan is to accommodate growth while enhancing the campus character and integration with the community. As discussed above, the campus is a largely self-contained, suburban campus with limited visual connections to the surroundings Northridge community. The development of the Master Plan was based on planning principals that focused on open space and varied architectural styles harmonized by landscaping in order to reinforce the educational experience as well as integrate the campus with the Northridge community. An assessment of impacts on the aesthetic resource of each campus precinct is provided below.



SOURCE: AC Martin Partners, Inc. – May 2005

FIGURE **3.1-12**

Open Space and Landscaping

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South Campus Arts Precinct

The Master Plan would aesthetically revitalize the Orange Grove through pruning and removal of unwanted vegetation between orange trees. In addition, the Plan would link the expanded University Club with the proposed Performing Arts Center through the proposed Orange Grove Arts Walk. Buildings proposed within the South Campus Arts Precinct would be architecturally compatible with the existing buildings on campus and would be sited in a way to create a series of outdoor open space areas of varying size. (The Valley Performing Arts Center, proposed within this precinct as part of Phase 1, is discussed in further detail under the near-term project level analysis, below.)

In the South Campus Arts Precinct, the Master Plan proposes to create a defined main entrance to the University at the intersection of East University Drive and Nordhoff Street, as shown in **Figure 3.1-13, East University Main Entrance**. The entry would include a date palm bosque, together with other landscaping, signage, and other improvements. The main entrance would also allow unobstructed sightlines onto campus from off-site. Other campus entrances along the western portion of the south campus within this precinct would be provided via Dearborn Street. Dearborn Street would also be landscaped with signature perimeter landscaping from Reseda Boulevard east to the campus. Any off-campus signage proposed to identify the campus location would comply with applicable City of Los Angeles guidelines and standards. The University would enter into discussions with property owners along these streets, with the aim of using alleés of Washingtonia palms along these streets to signify the University's presence.

In addition to redesigned campus entries, the Master Plan proposes a view window from Nordhoff Street, west of its intersection with East University Drive, to the center of campus within the South Campus Arts Precinct. A sketch of the campus as it would appear from Nordhoff Street is provided in **Figure 3.1-14, View Window From Nordhoff**. As shown in **Figure 3.1-14**, major pedestrian walkways follow the view window to the Oviatt Library in the center of campus, with formal green space and date palm bosques reminiscent of those flanking Oviatt Library and Sierra Quadrangle. These features, along with other main pedestrian pathways throughout campus, are intended to unify the campus. Since these Master Plan components would serve to enhance the aesthetic environment on campus, impacts would be less than significant.

Academic Core Precinct

Within the Academic Core Precinct, the Master Plan proposes seven new academic/administrative facilities. These proposed buildings would be architecturally consistent with the existing buildings on campus and would function to define open space. For example, a new academic/administrative building

is proposed along the northern boundary of the precinct that would replace Sagebrush Hall and a series of temporary buildings would enclose new open space to the east and west and would reinforce Redwood Walk pedestrian path. Landscaping associated with these structures would remain consistent with the Landscaping Master Plan. Components of the Master Plan within the Academic Core Precinct would enhance the aesthetic character of this portion of campus and aesthetic impacts would be less than significant.

West Gateway Precinct

The West Gateway Precinct represents a visually prominent portion of the CSUN campus. This precinct is largely defined by two new structures: the recently completed B3 parking structure, and the Police/Public Safety building at the corner of Darby Avenue and Prairie Street. Lighting impacts associated with the parking structure and Police/Public Safety building surface parking lot are discussed under significance criteria AES-4, below. Architecturally, these structures, along with the other two facilities proposed by the Master Plan for this precinct, would be consistent with the existing buildings on campus and would

include landscaping proposed within the Landscape Master Plan. Consistent with other proposed entrance enhancements, the formal campus entrance on Prairie Street would include a date palm bosque, together with other landscaping, signage, and other improvements. As proposed Master Plan features within the West Gateway Precinct would enhance the aesthetic character of the area, impacts would be less than significant.

East Gateway Precinct

Within the East Gateway precinct, the Master Plan would provide a new campus entry road at Prairie Street and Zelzah Avenue. This entry would include campus identification signage and be landscaped with allées of Mexican Fan Palms and signature low grass plantings to visually connect this entrance with the other on the west campus border. The new entry roadway would be flanked by playfields G3 and G4, providing unobstructed views onto campus. The buildings proposed within this precinct would be architecturally compatible with existing buildings, and a new open space quadrangle would be formed with their development. Impacts associated with the PS-G3 parking structure will be discussed in detail below. The Botanic Garden would be preserved within the precinct though some of the trees in the

SOURCE: AC Martin Partners, Inc. – May 2005

FIGURE **3.1-13**

East University Main Entrance

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SOURCE: AC Martin Partners, Inc. – May 2005

FIGURE **3.1-14**

View Window from Nordhoff St.

750-001•10/05

southern portion of the garden may require removal. As the campus entrance would serve to distinguish the CSUN campus, and the remainder of Master Plan features within the East Gateway precinct would enhance the visual quality of the campus, impacts would be less than significant.

Instructional/Athletics/Recreation Precinct

Under the 2005 Master Plan, the existing track, racquetball courts, baseball, softball and soccer fields would remain unchanged. These playfields are currently in good condition. The academic/ administrative and concession/storage buildings proposed within this precinct would be architecturally compatible with existing campus structures. Two parking structures are proposed within this precinct, PS-G4 and PS-G6. Impacts associated with PS-G6 will be discussed in detail under the near-term project level impacts analysis below. Impacts associated with lighting and PS-G4 will be discussed below under threshold AES-4. Structurally, PS-G4 would be visually compatible with other campus development. Aesthetic impacts would be less than significant.

University Park Student Housing Precinct

Additional student housing and a five-story residential parking structure are proposed within the University Park Student Housing Precinct. The five-story residential parking structure would be internally located and visually compatible with existing and proposed structures. The additional student housing buildings would be architecturally similar to existing structures and would create a new outdoor informal activity area. Landscaping would be consistent with the Landscape Master Plan. Impacts within the University Park Student Housing Precinct would be less than significant.

Northwest Precinct

Buildings intended for several different functions are proposed within the Northwest Precinct. These include student housing, faculty/staff housing, and academic/administrative buildings. All new structures within the precinct would be architecturally compatible with existing structures. A new parking structure, PS-B5-N is proposed near the corner of Darby Avenue and Plummer Street. This parking structure would be visually compatible with other structures in the precinct. Lighting impacts associated with PS-B5-N are discussed below. Informal campus entries on Plummer Street and Vincennes Street would be distinguished with signature perimeter landscaping from Reseda Boulevard east to the campus. Any off-campus signage proposed to identify the campus location would comply with applicable City of Los Angeles guidelines and standards. The University would enter into discussions with property owners along these streets, with the aim of using alleés of Washingtonia palms along these streets to signify the University's presence. Impacts would be less than significant, as the project components within this precinct would enhance the aesthetic character of the area.

North Campus Faculty/Staff Housing Village Precinct

The 2005 Master Plan proposes faculty/staff housing, a playfield, and small accessory building within this precinct. The housing units would be architecturally consistent with other campus buildings and landscaping would be consistent with the Landscape Master Plan. These project components would serve to enhance the aesthetic environment of the North Campus Faculty/Staff Housing Village. Impacts would be less than significant.

Shade/Shadow

Building heights on campus range in height from one to eight stories. All new structures proposed in the CSUN Master Plan would be six stories or less. As such, on- and off-site views and shade/shadow effects from campus buildings would be similar to existing conditions.

To address the current shortage of sufficiently shaded outdoor space, Master Plan design guidelines suggest the introduction of structures and landscaping to create shade in otherwise exposed places, to provide comfortable outdoor gathering places and seating areas for students, faculty, staff, and visitors.

AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Currently, the CSUN campus contributes significantly to the ambient nighttime light levels in the surrounding area. The 2005 Master Plan includes lighting design guidelines intended to facilitate safe nighttime use of the campus while limiting associated impacts on neighboring residences. Specific features of these design guidelines include directing light fixtures downward to illuminate walkways, employing hidden light sources, and installing focused high-level lighting in high-traffic areas in the campus interior, such as plazas and at building entrances. Proposed landscaping along the campus perimeter would also reduce light spillover into the surrounding neighborhoods.

The Master Plan proposes four new playing fields along Zelzah Avenue. These playing fields would incorporate field lighting fixtures to allow for nighttime recreational activities. In addition, two new parking structures are proposed along Zelzah Avenue and two new parking structures are proposed along Darby Avenue. The parking structures would include lighting within the structure, fixtures mounted along the façade, and light poles on the top level of the structure. The lighting associated with the proposed playfields and parking structures would be a prominent source of nighttime light within the area. Therefore, without mitigation, impacts would be considered significant. Mitigation is recommended to reduce impacts to less than significant levels. These measures include facing lighting fixtures down so as not to create sky glow, and shielding lighting fixtures to avoid spillover. Consistent

with the Master Plan's lighting design, light fixtures would be directed away from the residences across Zelzah Avenue. In addition, trees lining both sides of Zelzah Avenue would filter some of the light generated by field lighting fixtures. With implementation, mitigation measures AES-1 through AES-8, impacts would be less than significant.

Implementation of the Master Plan is not expected to result in a new source of substantial glare. New structures on campus would be constructed with materials that are non-reflective, such as stucco. Glass incorporated into building facades would either be composed of low-reflectivity glass or would be finished with a non-glare coating. Landscaping, paving, and other surface areas within the campus would not increase or create reflective conditions. Therefore, impacts would be less than significant.

Near-Term Project-Level Analysis

As stated in **Section 2.0**, **Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Center, Parking Structure G3, the Science 5 facility, a Student Housing Administration Building, University Park Student Housing, and 250 faculty/staff housing units. Phase 2 development projects include Parking Structure G6, Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities, the Student Recreation Center, and 100 faculty/staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

As discussed above under the program level analysis, a 2005 Landscape Master Plan has been developed to complement and reinforce the features of the Master Plan. **Figure 3.1-10**, shows the open space and landscaping component of the CSUN Master Plan.

AES-1: Have a substantially adverse impact effect on a scenic vista.

AES-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

As stated previously, no scenic vista has been identified in local land use plans at or near the campus. Near-term projects that would be internally sited on campus, or otherwise minimally visible from off-site vantages include the Transit Center, Science 5 building, and University Park Student Housing, under Phase 1; and the Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities, and Student Recreation Center under Phase 2. These projects would not affect views from off campus.

The remainder of the near-term projects analyzed in this EIR would be visible from surrounding land uses. As stated in the program level analysis above, the CSUN Master Plan would develop the campus

with new structures of similar nature. In addition, the Master Plan proposes signature perimeter landscaping that would serve to clearly distinguish the campus and its boundaries from the community, while introducing a landscaped buffer between campus and surrounding land uses. **Figure 3.1-11**, shows representative cross-sections of proposed street tree treatments on campus and in surrounding areas. All street trees proposed along off-campus City rights-of-way would comply with applicable City of Los Angeles street tree policies and guidelines. As such, the views from vantage points adjacent to the site would remain substantially unchanged from existing conditions or would be enhanced. Therefore, impacts on scenic vistas would be less than significant.

SR-118, located approximately two miles north of the campus, is not a state-designated scenic highway. SR-118 is a designated scenic highway in the City of Los Angeles.[4] However, due to the relatively flat topography of the San Fernando Valley, the campus is not visible from the highway, and the highway is not visible from the campus. No impacts on state or city scenic highways would occur.

AES-3: Substantially degrade the existing visual character or quality of the site and its surroundings.

As stated above, the near-term projects that would be internally located would not be visible from off-site land uses surrounding campus and, therefore, would not degrade associated views. Within campus, those internal projects are intended to enhance the campus aesthetic character, and therefore, would not degrade views from within the campus. The near-term projects that would be located along the campus perimeter or would be conspicuous from off-site perspectives are discussed below.

Parking structure PS-G3 would be located along the proposed Matador Drive and would be visually prominent from Zelzah Avenue. PS-G6 would be located along Zelzah Avenue within the Instructional/Athletics/Recreation Precinct. Architecturally, PS-G3 and PS-G6 would be consistent with buildings on campus. Landscaping would be consistent with the Landscape Master Plan and would include dense planting of pine trees, informal drifts of sycamore trees, and taller grasses. Aesthetic impacts associated with PS-G3 and PS-G6 would be less than significant. Lighting impacts associated with the structures are discussed under significance criteria AES-4, below.

The Student Housing Administration building would be located along Lindley Avenue, west of the existing track. This structure would be relatively small and architecturally consistent with other campus buildings. The 250 faculty/staff housing units proposed within Phase 1, and 100 faculty/staff units proposed within Phase 2 would also be structurally and visually consistent with other campus buildings. Landscaping associated would be consistent with the Landscaping Master Plan and would include

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4 City of Los Angeles General Plan, Transportation Element, Map E, Scenic Highways in the City of Los Angeles, adopted by City Council September 8, 1999. Prepared by the Citywide Transportation Section, City of Los Angeles Planning Department, Graphics Services Section, June 1998. <http://cityplanning.lacity.org>

pastoral, drought-tolerant landscape reminiscent of the natural landscape of Southern California within informal areas, and shade trees and turf grass. Based on the above, impacts would be less than significant.

The architectural style of the Valley Performing Arts Center would be complementary to nearby buildings on campus, and comparable in height to the nearby Nordhoff Street, serving as a visually attractive gateway to the campus. The proposed site design would allow existing pedestrian walkways in the vicinity to remain and introduce walkways that connect the existing pedestrian network to the Center. Landscaping would be implemented in accordance with the Landscape Master Plan and would include low vegetation around a landscaped plaza, and street trees along Nordhoff Street, East University Drive, and on-campus pedestrian walkways. Since the Valley Performing Arts Center is intended to enhance the aesthetic character of the campus perimeter and serve as a major architectural statement at the main entrance to the campus, impacts would be beneficial and therefore less than significant.

AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Parking structures PS-G3 and PS-G6 would require illumination of their interiors, light fixtures mounted along their façades, and light standards on the top levels of the structures. The lighting associated with the proposed parking structures would be a prominent source of nighttime light within the area and lighting impacts are, therefore, considered potentially significant. Mitigation is recommended to reduce impacts to less than significant levels. With implementation of Mitigation Measures AES-6 through AES-8, impacts would be less than significant.

The remaining near-term projects would not involve light fixtures that would constitute a substantial light source in the area. Impacts would be less than significant.

Implementation of the near-term projects is not expected to result in a new source of substantial glare. New structures on campus would be constructed with materials that are non-reflective, such as stucco. Glass incorporated into building facades would either be composed of low-reflectivity glass or would be finished with a non-glare coating. Landscaping, paving, and other surface areas within the campus would not increase or create reflective conditions. Therefore, impacts would be less than significant.

3.1.7 MITIGATION MEASURES

Program-Level Analysis

AES-1: Field lighting associated with all playfields along Zelzah Avenue shall be equipped with shields and hoods to avoid the creation of nighttime sky glow or light spillover to the greatest extent possible.

AES-2: Field lighting associated with all playfields along Zelzah Avenue shall be directed downward or onto playing surfaces to avoid the creation of nighttime sky glow.

AES-3: Field lighting associated with all playfields along Zelzah Avenue shall be directed away from residences across Zelzah Avenue to the east.

AES-4: Consistent with the Landscape Master Plan, pine and sycamore tree plantings shall be installed along the Zelzah Avenue campus perimeter as needed to screen light emitted by playfield fixtures.

AES-5: Field lighting associated with all playfields along Zelzah Avenue shall be used only when the fields are being utilized during nighttime hours.

AES-6: Lighting associated with parking structures PS-B1, PS-B5-N, PS-G3, PS-G4, and PS-G6 shall be equipped with shields and hoods to avoid the creation of nighttime sky glow and light spillover to the greatest extent possible.

AES-7: Lighting associated with parking structures PS-B1, PS-B5-N, PS-G3, PS-G4, and PS-G6 shall be directed downward and to avoid the creation of nighttime sky glow, and inward to the greatest extent possible.

AES-8: Consistent with the Landscape Master Plan, pine and sycamore tree plantings, and tall grasses shall be installed along the Zelzah Avenue and Darby Street campus perimeters as needed to screen lighting associated with parking structures PS-B1, PS-B5-N, PS-G3, PS-G4, and PS-G6.

Near-Term Project-Level Analysis

Mitigation Measures AES-6 through AES-8 would apply to the proposed near-term Master Plan projects, including Phase 1 and Phase 2 projects, and the Valley Performing Arts Center.

3.1.8 CUMULATIVE IMPACTS

The aesthetic impacts of Master Plan implementation would be largely confined to the University campus, since the Master Plan is focused on campus facilities. Those Master Plan features that would be visually apparent from off-site vantages, including parking structures, would be visually screened to reduce off-site impacts. The Valley Performing Arts Center, proposed perimeter landscaping, and proposed streetscape plantings along key roads approaching campus are intended to enhance the aesthetic value of the campus in the community, and as such would confer beneficial aesthetic impacts on the community. Master Plan implementation would not result in a significant contribution to cumulatively considerable impacts.

3.1.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

With the implementation of the recommended mitigation measures, impacts related to aesthetic impacts would be less than significant.

3.2 AIR QUALITY

3.2.1 INTRODUCTION

This section of the EIR evaluates potential air quality impacts associated with construction and operation of the proposed 2005 Master Plan. Air pollutants of concern include Volatile Organic Compounds (VOC), Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), and Respirable Particulate Matter (PM_{10}).

Implementation of the 2005 Master Plan would result in significant air quality impacts, including construction emission impacts (VOC, NO_x, and CO) and operational impacts for VOC (summertime), NO_x (wintertime), and PM_{10} (both summertime and wintertime). Implementation of the project-related mitigation measures would not reduce potentially significant impacts to less than significant levels.

3.2.2 METHODOLOGY

The methodology used to evaluate the air quality impacts associated with construction and operation of the 2005 Master Plan is based on the South Coast Air Quality Management District's (SCAQMD) *California Environmental Quality Act (CEQA) Air Quality Handbook* and the URBEMIS2002 emissions estimation model. Some elements of this analysis are based on data provided in other sections of this DEIR; for example, trip generation rates and a CO hotspots analysis are based on the traffic impact analysis prepared for the Master Plan.

3.2.3 EXISTING CONDITIONS

Regional Climate

Air quality is affected by both the rate and location of pollutant emissions. It is also heavily influenced by meteorological conditions that affect the movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, strongly affect the relationship between pollutant emissions and air quality.

The proposed project lies within the South Coast Air Basin (Basin). The Basin consists of all or portions of four counties, including all of Orange County, most of Los Angeles County, and the western portions of San Bernardino and Riverside Counties.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and topography. The combination of low wind speeds and low inversions produce the greatest

concentration of air pollutants. Smog potential is greatly reduced on days without inversions, or on days with winds averaging over 15 miles per hour (mph).[1]

The regional climate significantly influences the air quality in the Basin. Temperature, wind, humidity, precipitation, and even the amount of sunshine influence the quality of the air. In addition, the Basin is frequently subjected to an inversion layer that traps air pollutants. Temperature has an important influence on Basin wind flow, pollutant dispersion, vertical mixing, and photochemistry.

Annual average temperatures throughout the Basin vary from the low to middle 60 Fahrenheit (°F). However, due to decreased marine influence, the eastern portion of the Basin shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the Basin, with average minimum temperatures of 47 °F in downtown Los Angeles and 36 °F in San Bernardino. All portions of the Basin have recorded maximum temperatures above 100 °F.

Although the climate of the Basin can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of Basin climate. Humidity restricts visibility in the Basin, and the conversion of sulfur dioxide (SO_2) to sulfates is heightened in air with high relative humidity. The marine layer is an excellent environment for that conversion process, especially during the spring and summer months. The annual average relative humidity is 71 percent along the coast and 59 percent inland. Because the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the Basin's rainfall occurs from November through April. Annual average rainfall varies from approximately 9 inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thundershowers near the coast and slightly heavier shower activity in the eastern portion of the region and near the mountains.

Existing Air Quality

Regional Air Quality

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to national and state standards. Health-based air quality standards have been established by California and the federal government for the following

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1 South Coast Air Quality Management District, *CEQA Air Quality Handbook*, (Diamond Bar, California: South Coast Air Quality Management District, November 1993), page A8-1.

criteria air pollutants: ozone (O_3), CO, NO_2, SO_2, PM_{10}, Fine Particulate Matter ($PM_{2.5}$), and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards and in the case of PM_{10} and SO_2, much more stringent. California has also established standards for sulfates, visibility reducing particles, hydrogen sulfide and vinyl chloride. The state and national ambient air quality standards for each of the monitored pollutants and their effects on health are summarized in **Table 3.2-1, Ambient Air Quality Standards**.

Air quality of a region is considered to be in attainment of the state standards if the measured ambient air pollutant levels for O_3, CO, SO_2 (one- and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility reducing particles are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive three-year period. The National Ambient Air Quality Standards (NAAQS) (other than O_3, PM_{10}, $PM_{2.5}$ and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O_3, $PM_{10,}$ and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant.

The Basin is currently designated as nonattainment for O_3, PM_{10}, and CO. These violations are largely due to automotive vehicle emissions from the Los Angeles metropolitan area. Once designated as nonattainment, the California Clean Air Act (CCAA) requires the particular air basin to develop a plan that will reach attainment status by specified dates. This usually involves the local air quality district (e.g., the SCAQMD), along with the California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (U.S. EPA) adopting emission control measures to cumulatively reduce a particular pollutant emission. Those criteria pollutants currently in attainment within the Basin are expected to continue to decrease as control measures and strategies are developed to improve air quality.

Table 3.2-1
Ambient Air Quality Standards

Air Pollutant	State Standard	Federal Primary Standard	Most Relevant Health Effects
Ozone	0.09 ppm, 1-hr. avg.	0.12 ppm, 1-hr avg. (revoked 6/15/05) 0.08 ppm, 8-hr avg. (3-year average of annual 4th-highest daily maximum)	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals; (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage

Air Pollutant	State Standard	Federal Primary Standard	Most Relevant Health Effects
Carbon Monoxide	9.0 ppm, 8-hr avg. 20 ppm, 1-hr avg.	9 ppm, 8-hr avg. 35 ppm, 1-hr avg.	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.25 ppm, 1-hr avg.	0.053 ppm, annual arithmetic mean	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg. 0.25 ppm, 1-hr. avg.	0.030 ppm, annual arithmetic mean 0.14 ppm, 24-hr avg.	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in person with asthma
Suspended Particulate Matter (PM_{10})*	20 $\mu g/m^3$, annual arithmetic mean 50 $\mu g/m^3$, 24-hr avg.	50 $\mu g/m^3$, annual arithmetic mean 150 $\mu g/m^3$, 24-hr avg.	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Suspended Particulate Matter ($PM_{2.5}$)*	12 $\mu g/m^3$, annual arithmetic mean	15 $\mu g/m3$, annual arithmetic mean (3-year average) 65 $\mu g/m3$, 24-hr avg. (3-year average of 98th percentile)	(a) Increased hospital admissions and emergency room visits for heart and lung disease; (b) Increased respiratory symptoms and disease; and (c) Decrease lung functions and premature death
Sulfates	25 $\mu g/m^3$, 24-hr avg.	None	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead*	1.5 $\mu g/m^3$, 30-day avg.	1.5 $\mu g/m^3$, calendar quarterly average	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	Reduction of visual range to less than 10 miles at relative humidity less than 70%, 8-hour avg (10 AM – 6 PM)	None	Visibility impairment on days when relative humidity is less than 70 percent
Hydrogen Sulfide	0.03 ppm, 1-hr avg.	None	Odor annoyance
Vinyl Chloride*	0.01 ppm, 24-hr avg.	None	Known carcinogen

Source: South Coast Air Quality Management District. Final Program Environmental Impact Report to the 2003 Draft AQMP (Diamond Bar, California: South Coast Air Quality Management District, August 2003), Table 3.1-1, p. 3.1-2. This report may be reviewed on the SCAQMD website at http://ww.aqmd.gov/ceqa/documents/2003/aqmd/finalEA/ aqmp/AQMP_FEIR.html.
$\mu g/m^3$ = microgram per cubic meter.
ppm = parts per million by volume.
* *The ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

Local Air Quality

The SCAQMD oversees various monitoring stations that monitor air quality throughout the Basin.[2] The project site is located within the West San Fernando Valley (Source Receptor Area Number 6). The Reseda ambient air monitoring station monitors local air quality in the vicinity of California State University, Northridge (CSUN).[3] Pollutants monitored at this station include O_3, CO, NO_2, and $PM_{2.5}$.[4] The monitored ambient concentrations of pollutants are listed in **Table 3.2-2, Ambient Air Pollutant Concentrations Registered in SRA 6**. The data are primarily taken from the Reseda monitoring station at 18330 Gault Street, the closest monitoring station to the project site. Data for pollutants not monitored at Reseda were substituted with the next closest monitoring station. The monitoring data for Reseda indicates that for 1-hour O_3 the area exceeded the state standard in 2000 through 2004 and the federal standard in 2001 through 2004. The area also exceeded the federal 8-hour standard in 2000 through 2004. The area also exceeded the state PM_{10} 24-hour standard in 2000 to 2004, but not the federal standard.

Table 3.2-2
Ambient Air Pollutant Concentrations Registered in SRA 6

Pollutant	Standards[1]	Year				
		2000	2001	2002	2003	2004
OZONE (O_3)						
Maximum 1-hr concentration (ppm)		0.109	0.140	0.152	0.179	0.131
Maximum 8-hr concentration (ppm)		0.084	0.116	0.121	0.127	0.115
Number of days exceeding federal 1-hour standard [2]	0.12 ppm	0	2	9	14	2
Number of days exceeding state 1-hr standard	0.09 ppm	8	27	42	68	54
Number of days exceeding federal 8-hr standard	0.08 ppm	0	7	27	49	30
CARBON MONOXIDE (CO)						
Maximum 1-hr concentration (ppm)						
Maximum 8-hr concentration (ppm)		9.83	6.13	4.83	4.13	3.47
Number of days exceeding federal 8-hr standard	9 ppm	1	0	0	0	0
Number of days exceeding state 8-hr standard	9.0 ppm	1	0	0	0	0
NITROGEN DIOXIDE (NO_2)						
Maximum 1-hr concentration (ppm)		0.112	0.090	0.093	0.125	0.083
Annual arithmetic mean concentration (ppm)		0.028	0.026	0.024	0.025	0.021
Number of days exceeding state 1-hr standard	0.25 ppm	0	0	0	0	0
SULFUR DIOXIDE (SO_2)[3]						
Maximum 1-hr concentration (ppm)						
Maximum 24-hr concentration (ppm)		0.004	0.005	0.007	0.005	0.009
Annual arithmetic mean concentration (ppm)		0.001	0.001	0.002	0.001	0.003
Number of days exceeding state 1-hr standard	0.25 ppm	0	0	0	0	0
Number of days exceeding state 24-hr standard	0.04 ppm	0	0	0	0	0

2 Ibid.

3 SCAQMD, General Forecast Areas & Air Monitoring Areas Map, http://www.aqmd.gov/map/MapAQMD2.pdf, accessed September 22, 2005.

4 Ibid.

Pollutant	Standards[1]	Year				
		2000	2001	2002	2003	2004
Number of days exceeding federal 24-hr standard	0.14 ppm	0	0	0	0	0
PARTICULATE MATTER (PM_{10})[3]						
Maximum 24-hr concentration ($\mu g/m^3$) (using state methods for sampling)		74.0	86.0	70.0	79.0	73.0
Maximum 24-hr concentration ($\mu g/m^3$) (using federal methods for sampling)		74.0	86.0	71.0	81.0	74.0
Annual arithmetic mean concentration ($\mu g/m^3$) (using federal methods for sampling)		39.1	40.9	37.7	-	37.7
Number of samples exceeding federal 24-hr std.	150 $\mu g/m^3$	0	0	0	0	0
Number of samples exceeding state 24-hr std.	50 $\mu g/m^3$	14	14	6	6	6
PARTICULATE MATTER ($PM_{2.5}$)						
Maximum 24-hr concentration ($\mu g/m^3$)		67.5	71.1	48.8	47.5	56.2
Annual arithmetic mean concentration ($\mu g/m^3$)		18.0	18.4	18.9	16.5	15.7
Number of samples exceeding federal 24-hr std.	65 $\mu g/m^3$	2	1	0	0	0
LEAD[3]						
Maximum 24-hr concentration ($\mu g/m^3$)		0.03	0.03	0.03	0.01	na
Maximum quarterly average concentration ($\mu g/m^3$)		0.02	0.02	0.02	0.01	na
Number of months exceeding the state standard	1.5 $\mu g/m^3$	0	0	0	0	na
SULFATE[4]						
Maximum 24-hr concentration ($\mu g/m^3$)		13.9	13.4	10.5	12.7	11.2
Number of days exceeding state standard	25 $\mu g/m^3$	0	0	0	0	0

* *All data is from the Reseda air monitoring station unless noted otherwise.*
* *No data is available for lead in 2004; monitoring for lead at Burbank was discontinued in 2003, and it is not monitored at Reseda.*
[1] *Parts per million of air by volume (ppm), micrograms per cubic meter of air ($\mu g/m^3$), or annual arithmetic mean (aam).*
[2] *The federal 1-hour ozone standard was revoked on June 15, 2005. The data are shown for informational purposes.*
[3] *Data is from 228 West Palm Avenue monitoring station in Burbank, the closest site that monitors for the specific pollutant.*
[4] *Data is from SRA 8 (West San Gabriel Valley), the closest site that monitors for the specific pollutant.*
Sources:
(i) California Air Resource Board Air Quality Database http://www.arb.ca.gov/adam/welcome.html
(ii) U.S Environmental Protection Agency Air Quality Database http://www.epa.gov/air/data/.

Hydrogen sulfide, vinyl chloride, and visibility reducing particles were not monitored by the ARB or the SCAQMD in Los Angeles County during the period of 2000 to 2004.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Any facilities that house these sensitive receptors are considered to be sensitive land uses and require developers to plan around them if emitting significant amounts of pollutants.

Residential areas are considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time. It is, therefore, a primary goal to avoid subjecting these populations to sustained exposure of any pollutants. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions that can magnify the damage caused by air pollution. Industrial and commercial workers are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent due to a majority of the workers staying indoors. In addition, the working population is generally the healthiest segment of the public.

Sensitive receptors in the immediate vicinity include residencies located on all sides of the project area. These residencies are composed of both multi-family and single-family housing. Most of the multi-family housing lies to the east (east of Zelzah Avenue) and at the north side of campus with small multi-family areas west of DarbyAvenue and south of Nordhoff Street. Single-family housing is located along Halsted Street and Lindley Avenue to the west of the campus, and also along Zelzah Avenue from Nordhoff Street to Plummer Street on the east side of the campus. In addition to these residential areas, a recently opened Los Angeles Unified School District high school is located on the eastern side of the CSUN campus, at the intersection of Zelzah Avenue and Halstead Street. Valley New High School No. 1, recently renamed as Northridge Academy High School, is located adjacent to CSUN.

3.2.4 REGULATORY SETTING

Environmental Protection Agency (EPA)

The U.S. EPA is responsible for enforcing the Federal Clean Air Act (CAA) along with its 1990 Amendments and the NAAQS that it establishes. These standards identify levels of air quality for seven "criteria" pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. The threshold levels are considered to be the maximum concentration of ambient (background) air pollutants determined safe (within an adequate margin of safety) to protect the public health and welfare. The state and federal ambient air quality standards are listed in **Table 3.2-1**. As indicated, the averaging times for the various pollutants (the duration over which they are measured) range from one hour to an annual basis. The standards are reported as a concentration, in parts per million (ppm) by volume, or as a weighted mass of material per a volume of air, in micrograms of pollutant per cubic meter of air ($\mu g/m^3$).

The 1990 CAA Amendments were enacted in order to better protect the public's health and create more efficient methods of lowering pollutant emissions. The major areas of improvement from the amendments include: air basin designations, automobile/heavy duty engine emissions, and toxic air pollutants. The U.S. EPA designates air basins as being in "attainment" or "nonattainment" for each of the seven "criteria" pollutants. Nonattainment air basins are ranked (marginal, moderate, serious, severe,

or extreme) according to the degree of the threshold violation. The air basin is then required to submit a State Implementation Plan (SIP) that describes how the state will achieve the federal standards by specified dates. The stringency of emission control measures in a given SIP depends on the severity of the air quality within specific air basin. The status of the Basin with respect to attainment with the NAAQS is summarized in **Table 3.2-3, National Ambient Air Quality Standards and Status – South Coast Air Basin.**

Table 3.2-3
National Ambient Air Quality Standards and Status
South Coast Air Basin

Pollutant	Averaging Time	Designation/Classification
Ozone (O_3)	8 Hour	Nonattainment/Severe 17
	1 Hour[1]	Nonattainment/Extreme
Carbon Monoxide (CO)	8 Hour	Nonattainment/Serious
	1 Hour	Nonattainment/Serious
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	Attainment/Unclassifiable
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	Attainment/Unclassifiable
	24 Hour	Attainment/Unclassifiable
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	Nonattainment/Serious
	24 Hour	Nonattainment/Serious
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	Nonattainment
	24 Hour	Nonattainment
Lead (Pb)	Calendar Quarter	Attainment

Source: Environmental Protection Agency. "Region 9: Air Programs, Air Quality Maps." [Online] [July 14, 2005]. <http://www.epa.gov/region9/air/maps/maps_top.html>

[1] *The national 1-hour ozone standard was revoked on June 15, 2005. The previous attainment designation/classification is shown for informational purposes.*

In response to the rapid population growth and its subsequent rise in automobile operations, the 1990 CAA Amendments address tailpipe emissions from automobiles, heavy-duty engines, and diesel fuel engines. The 1990 Amendments established more stringent standards for hydrocarbons, nitrogen oxides NO_x, and CO emissions in order to reduce ozone and carbon monoxide levels in heavily populated areas. Fuels became more strictly regulated by requiring new fuels to be less volatile, contain less sulfur (regarding diesel fuels), and have higher levels of oxygenates (oxygen-containing substances to improve fuel combustion). The U.S. EPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and those that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking.

Due to the lack of toxic emissions reduction by the 1977 CAA, the U.S. EPA listed 189 hazardous air pollutants (HAPs) that are carcinogenic, mutagenic, and/or reproductive toxins to be reduced. This

program involves locating all major (greater than 10 tons/year) and area emission sources in order to implement Maximum Achievable Control Technology (MACT) to reduce health impacts.

California Air Resource Board

The ARB, a branch of the California Environmental Protection Agency (CalEPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring the implementation of the CCAA, responding to the federal CAA requirements, and for regulating emissions from motor vehicles and consumer products within the state. The ARB also sets health based air quality standards and control measures for toxic air contaminants (TACs). The focus of most of its research goes toward automobile emissions since it is the largest concern regarding air pollution in California. The ARB establishes new standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

Enacted in 1988, the CCAA established a legal mandate for air basins to achieve the California ambient air quality standards by the earliest practical date. These standards apply to the same seven criteria pollutants as the federal ambient air quality standards and also include sulfates, visibility reducing particles, hydrogen sulfide, and vinyl chloride. State standards are more stringent than the federal standards, and in the case PM_{10} and SO_2, far more stringent.

The ARB supervises and supports the regulatory activities of local air quality districts as well as monitors air quality itself. Health and Safety Code Section 39607(e) requires the ARB to establish and periodically review area designation criteria. These designation criteria provide the basis for the ARB to designate areas of the state as "attainment," "nonattainment," or "unclassified" according to state standards. The ARB will designate an area as nonattainment for a pollutant if monitoring data shows that a California Ambient Air Quality Standards (CAAQS) for a particular pollutant was violated at least once during the previous three years. In addition, Health and Safety Code §39608 requires the ARB to use the designation criteria to designate areas of California and to annually review those area designations. The ARB makes area designations for ten criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, sulfates, lead, hydrogen sulfide, and visibility-reducing particles. The status of the Basin with respect to attainment for the CAAQS is summarized in **Table 3.2-4, California Ambient Air Quality Standards and Status – South Coast Air Basin**.

Table 3.2-4
California Ambient Air Quality Standards and Status
South Coast Air Basin

Pollutant	Averaging Time	Designation/Classification
Ozone (O_3)	1 Hour	Nonattainment/Extreme
Carbon Monoxide (CO)	8 Hour	Attainment
	1 Hour	Attainment
Nitrogen Dioxide (NO_2)	1 Hour	Attainment
Sulfur Dioxide (SO_2)	24 Hour	Attainment
	1 Hour	Attainment
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	Nonattainment
	24 Hour	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	Nonattainment
Lead (Pb)[1]	30 Day Average	Attainment
Sulfates (SO_4)	24 Hour	Attainment
Hydrogen Sulfide (H_2S)	1 Hour	Unclassified
Vinyl Chloride[1]	24 Hour	Unclassified
Visibility Reducing Particles	8 Hour (10 AM – 6 PM)	Unclassified

Source: California Air Resources Board. "Area Designations (Activities and Maps)." [Online] [July 21, 2005]. <http://www.arb.ca.gov/desig/desig.htm>

[1] *The ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined.*

South Coast Air Quality Management District

The Basin is home to nearly 16 million people. The SCAQMD is responsible for regional air quality to be in attainment with both federal and state ambient air quality standards. The SCAQMD primarily regulates emissions from stationary sources such as manufacturing and power generation. Mobile sources such as buses, automotive vehicles, trains, and airplanes are largely out of the SCAQMD's jurisdiction and are up to the ARB and EPA to regulate. In order to achieve air quality standards, the SCAQMD adopts an Air Quality Management Plan (AQMP) that serves as a guideline to bring pollutant concentrations into attainment with federal and state standards. The District determines if certain rules and control measures are appropriate for their specific region according to technical feasibility, cost effectiveness, and the severity of nonattainment. Once the District has adopted the proper rules, control measures, and permit programs, it is their responsibility to implement and enforce compliance to the programs.

Southern California Association of Governments (SCAG)

SCAG is a council of governments for the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. As a regional planning agency, SCAG serves as a forum for regional issues

relating to transportation, economy, community development, and the environment. SCAG also serves as the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews projects to analyze their impacts on SCAG's regional planning efforts.

Although SCAG is not an air quality management agency, it is responsible for several air quality planning issues. As the designated Metropolitan Planning Organization (MPO) for the Southern California region, it is responsible, pursuant to §176(c) of the 1990 amendments to the CAA, for providing current population, employment, travel, and congestion projections for regional air quality planning efforts.

3.2.5 LOCAL RULES AND REGULATIONS

Emissions that would result from stationary and some areas sources at CSUN are subject to the rules and regulations of the SCAQMD.[5] Rules and regulations of this agency are designed to achieve state and national ambient air quality standards. To that purpose, they limit the emissions and the permissible impacts of emissions from projects, and specify emission control technologies for various types of emitting sources.

Air Quality Plans

For this project, the SCAQMD and SCAG have the responsibility of preparing the AQMP that addresses both federal and state CAA requirements.[6] The AQMP specifies goals, policies, and programs for improving air quality and establishes thresholds for daily operation emissions. Environmental review of individual projects within the region must demonstrate whether daily construction and operational emissions exceed thresholds established by the SCAQMD.[7]

2003 Air Quality Management Plan (AQMP)

The most recent AQMP (2003)[8] addresses CAA requirements that are intended to bring the Basin into compliance with state ambient air quality standards. The AQMP focuses on the reduction of O_3 and CO emissions through public sources.

The SCAQMD is required to produce plans describing how air quality will be improved. The CCAA requires that these plans be updated triennially in order to incorporate the most recent available technical

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5 South Coast Air Quality Management District, 2004, Rules and Regulations.
6 SCAQMD, 2003, Draft 2003 Air Quality Management Plan.
7 Ibid.
8 Ibid.

information.[9] In addition, the U.S. EPA requires that transportation conformity budgets be established based on the most recent planning assumptions (i.e., within the last five years). Plan updates are necessary to ensure continued progress toward attainment and to avoid a transportation conformity lapse and associated federal funding losses.

A multi-level partnership of governmental agencies at the federal, state, regional, and local levels implement the programs contained in these plans. Agencies involved include the U.S. EPA, ARB, local governments, SCAG, and the SCAQMD.

CEQA Guidelines

In 1993, the SCAQMD prepared its *CEQA Air Quality Handbook* to assist local government agencies and consultants in preparing environmental documents for projects subject to CEQA. There has been one full update to the document in November 1993, and it is currently undergoing an update process. The document describes the criteria that SCAQMD uses when reviewing and commenting on the adequacy of environmental documents. The handbook recommends thresholds of significance in order to determine if a project will have a significant adverse environmental impact. Other important contents are methodologies for predicting project emissions and mitigation measures that can be taken to avoid or reduce air quality impacts. Although the Governing Board of the SCAQMD has adopted the *CEQA Air Quality Handbook*, it does not, nor does it intend to, supersede a local jurisdiction's CEQA procedures.

The *CEQA Air Quality Handbook* is currently undergoing revision. As of September 2, 2005 (the last revision to the district's website [www.aqmd.gov/ceqa/hdbk.html] that addresses the *CEQA Air Quality Handbook* revisions at the time of this writing), only three chapters have been revised: Chapter 2 (Improving Air Quality and the AQMD's Role), Chapter 3 (Basic Air Quality Information), and Chapter 4 (Early Consultation and Sensitive Receptor Siting Criteria). In addition, the air quality significance thresholds have been revised, and a new procedure referred to as localized significance thresholds, has been added. The *CEQA Air Quality Handbook* and the revised chapters were used in preparing the air quality analysis in this EIR section.

3.2.6 PLANNED IMPROVEMENTS

The Master Plan proposes administrative, academic, residential, support retail, recreational and parking uses on the site, all of which would include sidewalks, bike lanes, trails, and trees that would shade buildings. The sidewalks, bike lanes, and trails would encourage alternative modes of travel in lieu of

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9 California Clean Air Act (CCAA) of 1988.

automobiles, while the shade trees would reduce the amount of energy required for air conditioning and the corresponding energy generation emissions.

The 2005 Master Plan addresses vehicle traffic on and around the CSUN campus. Master Plan recommendations for managing traffic and parking are based on a series of planning principles and objectives formulated during the master planning process. Those acknowledged the need for a reduction in traffic associated with the campus; increased on-campus parking supply together with a reduction in parking demand; the appropriate siting of future campus parking facilities; improved public transit opportunities; improvements to the campus tram system; improved pedestrian safety; and more visually prominent campus points of entry.

The Master Plan also incorporates information contained in the Parking and Traffic Analysis conducted for this purpose. **Figure 2.0-8, Vehicular Circulation and Parking Plan**, in **Section 2.0, Project Description**, shows existing and proposed campus points of entry, vehicular circulation, tram routes and stops, and parking facilities. **Figure 2.0-9** in **Section 2.0, Project Description**, shows service and emergency vehicle access points and circulation on campus.

To reduce the volume of campus-related traffic and the need for on-campus parking, the Master Plan proposes an Alternative Transportation Plan to facilitate the use of public transit. Master Plan features include a multimodal transit hub on the western edge of campus, close to Reseda Boulevard bus routes and freeway access; expansion of the existing campus tram system; and establishment of a new, off-campus Metropolitan Transit Authority (MTA) bus stop.

The Transit Hub would be sited at the existing campus entry on Darby Avenue at Prairie Street and would serve as the centralized point of campus access for all modes of public transit. The hub would include parking and a turnaround for six city buses, which would enter and exit the campus via Prairie Street. The hub would also serve as a stop for the campus shuttle to the local Metrolink station. A new "circulator" tram route is proposed to encircle the campus core and would connect to the existing tram route that operates along East University Drive on the east side of the campus. The new route would follow West University Drive and would stop at the Transit Hub.

The Master Plan proposes to improve on-campus circulation by reducing through-traffic on internal campus roadways and reducing the potential for pedestrian-vehicle conflicts. This would be accomplished through several related Master Plan proposals discussed above: the addition of a "circulator" tram route on campus (see the Transportation Management section of the Master Plan); the designation of formal campus entries (and closure of other existing entries) to control the flow of traffic onto and off the campus (see the Campus Entry section of the Master Plan); and the balanced distribution of parking facilities throughout the campus and implementation of a parking assignment program (see

the Parking Facilities section of the Master Plan). The Master Plan further proposes controlled access to East and West Campus Drives and North University Drive/Plummer Street. Use of these internal campus roadways would be limited to service and emergency vehicles and access to ADA parking. The on-campus portions of Dearborn, Prairie, and Vincennes Streets and the easternmost portion of North University Drive/Plummer Street would be designated minor service routes.

A more detailed description of the transit and mobility aspects of the proposed 2005 Master Plan is found in **Section 2.0, Project Description**.

3.2.7 THRESHOLDS OF SIGNIFICANCE

The California State University has not officially adopted thresholds of significance for air quality impacts. Therefore, in the absence of such thresholds, EIRs prepared for projects in the region use the thresholds recommended by the SCAQMD in its *CEQA Air Quality Handbook*.[10] The CSU has determined that these thresholds are appropriate. SCAQMD's thresholds for both construction and operational emissions are defined below.

Construction Emission Thresholds

AIR-1: The SCAQMD recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered significant:[11]

- 24.75 tons per quarter or 550 pounds per day of CO,
- 2.5 tons per quarter or 75 pounds per day of VOC,
- 2.5 tons per quarter or 100 pounds per day of NO_x,
- 6.75 tons per quarter or 150 pounds per day of SO_x, and
- 6.75 tons per quarter or 150 pounds per day of PM_{10}.

Operational Emissions

The SCAQMD has recommended two types of air pollution thresholds to assist lead agencies in determining whether or not the operational phase of a project's development would be significant. These are identified in the following discussion under the headings **Emission Significance Thresholds** and **Additional Indicators of Potential Air Quality Impacts**. The SCAQMD recommends that a project's impacts be considered significant if any of these operational thresholds is exceeded.

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10 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993).

11 Ibid., p. 6-4.

Emission Significance Thresholds

AIR-2: The SCAQMD recommends that the following thresholds be used by lead agencies in making a determination of operation-related project significance:[12]

- 550 pounds per day of CO,
- 55 pounds per day of VOC,
- 55 pounds per day of NO_x,
- 150 pounds per day of SO_x, and
- 150 pounds per day of PM_{10}.

Additional Indicators of Potential Air Quality Impacts

The SCAQMD recommends that projects meeting any of the following criteria also be considered to have significant air quality impacts:[13]

AIR-3: Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation;

AIR-4: Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's build-out year;

AIR-5: Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot;

AIR-6: Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors;

AIR-7: Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety;

AIR-8: Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxics list;

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12 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, November 1993), p. 6-2.

13 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, November 1993), pp. 6-2 – 6-3.

AIR-9: Project could be occupied by sensitive receptors within one quarter mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

AIR-10: Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million.

3.2.8 PROJECT IMPACTS

Emissions that can adversely affect air quality originate from various activities. A project generates emissions both during the period of its construction and through ongoing daily operations. Construction and operational area and mobile source emissions were calculated using URBEMIS2002, which is a land use and transportation based air quality model developed in cooperation with the ARB and air quality management districts and air pollution control districts throughout the state. Construction emissions were estimated using SCAQMD-approved emission factors and assumptions that are already built into the model, including some of the fugitive dust control measures required under Rule 403 (Fugitive Dust).

This analysis has utilized a site development scenario that is projected to occur over a 30-year period during which different portions of the site would be developed at different times in four phases. Actual construction of new buildings and structures could occur at any time during the 30 years after project approval as funding becomes available and space for new students is needed. However, the approach used in this assessment assumes that construction of some portions of the project would occur in accordance with current development plans over the next 30 years.

Once the proposed uses are constructed and occupied, emissions would be generated by area sources such as water and space heaters, gasoline powered landscape maintenance equipment, and consumer products (e.g., air fresheners, automotive products, household cleaners, and personal care products). Mobile source emissions would be generated by motor vehicle travel associated with occupancy of the proposed development.

Construction-Related Impacts

Construction Emissions

AIR-1: The project would exceed the SCAQMD recommended mass emission-based thresholds for construction-related emissions.

Construction-related emissions can be designated as either on site or off site. On-site emissions generated during construction principally consist of exhaust emissions (NO_x, SO_x, CO, VOC, and PM_{10}) from heavy-duty diesel powered construction equipment operation, fugitive dust (PM_{10}) from demolition and

disturbed soil, and evaporative VOC emissions from asphaltic paving and architectural coatings (i.e., painting). Off-site emissions during the construction phase normally consist of exhaust emissions and entrained paved road dust (PM_{10}) from worker commute trips. Emissions during the construction phase are also a result of truck trips made for equipment and materials delivery to remove wastes and unused materials from the construction site.

Development under the proposed Master Plan would require site preparation (i.e., removal of the existing buildings and pavement, clearing, and grading); pavement and asphalt installation (including infrastructure improvements); and construction of the proposed land uses. Several structures that exist on the campuses would be demolished concurrently with on-site grading and emissions from their demolition are factored into the construction activities. Site buildout would occur over a period of up to 30 years during which, as noted above, emissions would be generated by on-site stationary sources, heavy-duty construction vehicles, on-road trucks, and construction worker vehicles. In addition, fugitive dust would be generated by demolition, grading, and pavement installation.

Because of the construction time frame and the normal day-to-day variability in construction activities, it is difficult, if not impossible, to precisely quantify the daily emissions associated with each construction subphase. A conservative approach was taken in which construction of the project was assumed to occur over four phases as identified in the CSUN Master Plan:

Phase 1: From 2005 to 2009, demolition of 11,200 square feet of existing buildings, construction of 133,000 square feet of new academic/administration buildings, a 163,000 square foot performing arts venue, housing for 252 student beds, and 250 faculty housing units. Additional parking spaces (primarily in parking structures) would also be constructed during this phase.

Phase 2: From 2010 to 2014, demolition of approximately 48,600 square feet of existing buildings, construction of 462,900 square feet of new academic/administration buildings, housing for 504 student beds, and 150 faculty housing units. Additional parking spaces (in parking structures) and athletic fields would also be constructed during this phase.

Phase 3: From 2015 to 2019, of approximately 226,700 square feet of existing buildings, construction of 138,300 square feet of new academic/administration buildings, housing for 140 student beds, and 50 faculty housing units. Additional parking spaces (primarily in parking structures) and athletic fields would also be constructed during this phase.

Phase 4: From 2020 to 2035, demolition of approximately 71,300 square feet of existing buildings, construction of 728,780 square feet of new academic/administration buildings, housing for 1,792 student

beds, and 82 faculty housing units. Additional parking spaces (in parking structures) would also be constructed during this phase.

Actual construction of individual buildings or groups of buildings would tend to occur over shorter periods, on the order of 12 to 24 months in a phase, rather than one long construction period of five to fifteen years. Thus, the construction emissions were estimated for a two-year period using two-fifths of the above demolition and construction levels in Phases 1 through 3, and two-fifteenths of the above demolition and construction levels in Phase 4. The construction of the remaining three years in Phases 1 through 3 and the remaining 13 years in Phase 4 would generate daily emissions equal to or less than the emissions in the first two-year period, assuming that the construction occurs at the same annual rate, because the vehicles and equipment used for construction will have lower emissions over time. Accordingly, this approach will estimate the maximum construction emissions that would be expected to occur.

Table 3.2-5, Estimated Unmitigated Construction Emissions, conservatively identifies daily emissions associated with construction based on information provided by CSUN and on other information provided in the Software Users' Guide [for] URBEMIS2002 for Windows with Enhanced Construction Module (April 2005).[14] It is expected that all construction equipment would be properly maintained, grading activities would conform to Rule 403 to control fugitive dust emissions, and that low-VOC emission asphalt and architectural coatings would be used. As shown in **Table 3.2-5**, the construction-related emissions associated with development under the Master Plan would exceed the SCAQMD's VOC, NO_x, and/or CO thresholds of significance during each year of the project construction period. It should be noted that construction activities in Phases 2, 3, and 4 would likely involve off-road construction equipment that will be manufactured in accordance with new federal standards that will phase in beginning in 2011. These standards will reduce NO_x and PM_{10} emissions from off-road engines more than 90 percent from current levels. If the construction contractors were to use equipment meeting these standards for grading and construction of the Phase 2, 3, and 4 facilities, the NO_x and PM_{10} emissions would be substantially lower than the levels shown in **Table 3.2-5**.[15] Furthermore, SCAQMD Rule 1113 (Architectural Coatings) will require reductions in the VOC content of coatings, with a substantial reduction in the VOC content limit for flat coatings in July 2008. The emissions associated with painting of buildings in Phases 2, 3, and 4 reflect these future limits as recommended by the SCAQMD staff.

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14 South Coast Air Quality Management District. "URBEMIS 2002 Version 8.7.0." [On line] 2 September 2005. <http://www.aqmd.gov/ceqa/urbemis.html>.

15 URBEMIS2002 was released before the new federal standards for off-road engines were promulgated in May 2004. Thus, URBEMIS2002 does not reflect the NO_x and PM_{10} emission reductions resulting from implementation of these standards.

Table 3.2-5
Estimated Unmitigated Construction Emissions

Construction Phase	Year	Emissions in Pounds per Day				
		VOC	NO_x	CO	SO_x	PM_{10}
Phase 1	2006	71.20	543.67	525.12	0.06	24.73
	2007	71.13	519.85	541.36	0.00	22.63
	2008	217.40	520.54	602.35	0.00	21.45
Phase 2	2010	109.48	695.91	908.99	0.03	27.04
	2011	109.48	695.91	908.99	0.00	27.04
	2012	213.25	720.29	957.78	0.00	27.99
Phase 3	2015	90.86	579.71	753.28	0.13	24.82
	2016	90.86	579.71	753.28	0.00	22.53
	2017	176.87	603.37	795.30	0.00	23.40
Phase 4	2020	40.22	256.95	333.11	0.01	9.97
	2021	40.22	256.95	333.11	0.00	9.97
	2022	80.67	280.28	369.51	0.00	10.72
Maximum Emissions in Any Year		217.40	720.29	957.78	0.13	27.99
SCAQMD Thresholds		75	100	550	150	150
Exceeds Thresholds?		**YES**	**YES**	**YES**	NO	NO

Source: Impact Sciences, Inc. Calculations can be found in ***Appendix B****.*
Notes: Assumes that construction would occur in four phases, commencing in June 2006. Emissions are estimated for the first two years of each phase.
Assumes conformance with Rule 403 (Fugitive Dust).

In addition to the emissions of criteria pollutants, demolition of the existing buildings has the potential to release asbestos fibers due to the age of the structures. Demolition activity is subject to SCAQMD Rule 1403. This rule is intended to limit asbestos emissions from demolition or renovation of structures and the associated disturbance of asbestos-containing waste material generated or handled during these activities. The rule addresses the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) and provides additional requirements to cover non-NESHAP areas. As part of project implementation, CSUN must comply with the requirements of SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities. This rule is intended to limit asbestos emissions from demolition or renovation of structures and the associated disturbance of asbestos-containing waste generated or handled during these activities. The rule requires the SCAQMD to be notified before demolition or renovation activity occurs. This notification includes a description of structures and methods utilized to determine the presence of asbestos or lack thereof. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with the requirements of Rule 1403. Project compliance with Rule 1403 would ensure that asbestos-containing materials would be disposed of appropriately. Compliance with the requirements of this measure would

avoid a significant construction-related impact by preventing the release of asbestos emissions during demolition.

Construction Emissions Conclusions

Because maximum Master Plan construction emissions would exceed the SCAQMD's VOC, NO_x, and CO thresholds of significance during the project construction period for Phases 1 through 4, the emission levels are considered potentially significant and mitigation is required. The effectiveness of the proposed mitigation in reducing these potentially significant adverse air quality impacts is discussed below.

Operational Impacts

AIR-2: The project would exceed the SCAQMD recommended mass emission-based thresholds for operation-related emissions.

Operational emissions would be generated by area, mobile, and potentially stationary sources as a result of normal day-to-day activities on campus after occupation.

Point Source Emissions

The proposed Master Plan is not expected to include any point sources that would be permitted by the SCAQMD as regulated at the time of this writing. While food service facilities would be constructed as part of the project, they would include small food preparation equipment (e.g., oven, ranges, cooking kettles), which is generally considered to be insignificant sources of air emissions that are exempt from permitting. The emissions from such sources are primarily associated with fuel combustion, which is addressed in the area source emission calculations by URBEMIS2002 discussed below.

Area and Mobile Source Emissions

Area sources emissions would be generated by the consumption of natural gas for space and water heating devices and food preparation, from the operation of gasoline-powered landscape maintenance equipment, from the use of consumer products (e.g., hair spray, deodorants, lighter fluid, air fresheners, automotive products, and household cleaners), and the use of architectural coatings to repaint building surfaces. Mobile emissions would be generated by the motor vehicles traveling to and from the campus. The Master Plan area and mobile source emissions as estimated using URBEMIS2002 for each of the four project phases are shown in **Tables 3.2-6, 3.2-7, 3.2-8, and 3.2-9, Estimated Operational Emissions without Mitigation, Phases 1 through 4**. The emission estimates are based on the net increase in student population that would occur in each phase relative to the current student population (24,473 full-time equivalent students). The net increase in students was derived from the total increase under the Master

Plan (an increase from 24,473 FTE students to 35,000 FTE and the assumed construction of academic and administrative buildings during each phase of the Master Plan. The increase in students was assumed to be proportional to the area of these buildings because a design criterion of 115,000 square feet of academic and administrative buildings per 1,000 FTE students has been used in development of the Master Plan. Based on these assumptions, the net increase in FTE students for each phase is as follows:

Phase 1: 927 students

Phase 2: 4,288 students (includes Phase 1 students)

Phase 3: 5,283 students (includes Phases 1 and 2 students)

Phase 4: 10,527 students (includes Phases 1, 2, and 3 students)

The following characteristics of the Master Plan and the area around the Master Plan would have a beneficial effect on stationary, area, and mobile source emissions, and the associated benefits (resulting in a 10-percent reduction in the trip generation rate) were factored into the trip generation rates used in the URBEMIS2002 model:

- Safe and pedestrian-friendly sidewalks and pathways through the University to encourage walking;
- Improved public transit;
- Improved on-campus tram system; and
- New MTA stop for shuttle to the local Metrolink station.

URBEMIS2002 was used to calculate area and mobile source emissions from the proposed Master Plan for both summertime and wintertime emissions for each phase. The primary difference between the two inputs is that it is assumed that, in general, landscape maintenance would generate emissions only during summertime (April 1 to October 31).

Table 3.2-6
Estimated Operational Emissions without Mitigation
Phase 1

Emissions Source	Emissions in Pounds per Day				
	VOC	NO_x	CO	SO_x	PM_{10}
Summertime Emissions[1]					
Mobile Sources	25.44	14.88	154.83	0.11	16.50
Area Sources	0.89	0.85	1.38	0.00	0.00
Summertime Emission Totals	26.33	15.73	156.21	0.11	16.50
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	NO	NO	NO	NO	NO
Wintertime Emissions[2]					
Mobile Sources	13.14	21.43	151.85	0.09	16.50
Area Sources	0.80	0.85	0.71	0.00	.00
Wintertime Emission Totals	13.94	22.28	152.56	0.09	16.50
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	NO	NO	NO	NO	NO

*Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix B**.*
Emissions based on net increase in enrollment of 957 students (FTE) in 2009.
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
[1] *"Summertime Emissions" are representative of worst-case conditions that may occur during the ozone season (May 1 to October 31).*
[2] *"Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).*

Table 3.2-7
Estimated Operational Emissions without Mitigation
Phase 2

Emissions Source	Emissions in Pounds per Day				
	VOC	NO_x	CO	SO_x	PM_{10}
Summertime Emissions[1]					
Mobile Sources	76.27	37.07	391.28	0.48	73.78
Area Sources	3.65	3.82	3.83	0.00	0.01
Summertime Emission Totals	79.92	40.89	395.11	0.48	73.79
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	**YES**	NO	NO	NO	NO
Wintertime Emissions[2]					
Mobile Sources	35.10	53.04	379.53	0.38	73.78
Area Sources	3.56	3.81	3.20	0.00	0.01
Wintertime Emission Totals	38.66	56.85	382.73	0.38	73.79
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	NO	**YES**	NO	NO	NO

*Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix B**.*
Emissions based on net increase in enrollment of 4,288 students (FTE) in 2014.
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
[1] *"Summertime Emissions" are representative of worst-case conditions that may occur during the ozone season (May 1 to October 31).*
[2] *"Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).*

Table 3.2-8
Estimated Operational Emissions without Mitigation
Phase 3

Emissions Source	Emissions in Pounds per Day				
	VOC	NO_x	CO	SO_x	PM_{10}
Summertime Emissions[1]					
Mobile Sources	73.06	31.20	352.72	0.59	90.83
Area Sources	4.48	4.71	4.58	0.00	0.01
Summertime Emission Totals	77.54	35.91	357.30	0.59	90.84
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	**YES**	NO	NO	NO	NO
Wintertime Emissions[2]					
Mobile Sources	32.29	44.75	340.81	0.47	90.83
Area Sources	4.39	4.70	3.95	0.00	0.01
Wintertime Emission Totals	36.68	49.45	344.76	0.47	90.84
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	NO	NO	NO	NO	NO

*Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix B**.*
Emissions based on net increase in enrollment of 5,283 students (FTE) in 2019.
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
[1] *"Summertime Emissions" are representative of worst-case conditions that may occur during the ozone season (May 1 to October 31).*
[2] *"Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).*

Table 3.2-9
Estimated Operational Emissions without Mitigation
Phase 4

Emissions Source	Emissions in Pounds per Day				
	VOC	NO_x	CO	SO_x	PM_{10}
Summertime Emissions[1]					
Mobile Sources	66.09	26.90	353.70	1.04	180.67
Area Sources	8.84	9.37	8.50	0.00	0.02
Summertime Emission Totals	74.93	36.27	362.20	1.04	180.69
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	**YES**	NO	NO	NO	**YES**
Wintertime Emissions[2]					
Mobile Sources	34.62	38.33	337.99	0.93	180.67
Area Sources	8.75	9.36	7.86	0.00	0.02
Wintertime Emission Totals	43.37	47.69	345.85	0.93	180.69
Recommended Threshold	55	55	550	150	150
Exceeds Threshold?	NO	NO	NO	NO	**YES**

*Source: Impact Sciences, Inc. Emissions calculations are provided in **Appendix B**.*
Emissions based on net increase in enrollment of 10,527 students (FTE) in 2035.
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
[1] *"Summertime Emissions" are representative of worst-case conditions that may occur during the ozone season (May 1 to October 31).*
[2] *"Wintertime Emissions" are representative of worst-case conditions that may occur during the balance of the year (November 1 to April 30).*

As shown in **Table 3.2-9**, the Master Plan at buildout and in full operation would generate total summertime or wintertime emissions that would exceed SCAQMD recommended thresholds for VOC (summertime), NO_x (wintertime), and PM_{10} (both summertime and wintertime) during Phases 1 to 4 (the PM_{10} threshold would be exceeded only in Phase 4). As the amount of emissions would exceed the recommended thresholds, the operational air quality impacts associated with project operation under the Master Plan would be significant.

Additional Indicators of Potential Air Quality Impacts

As previously discussed, the SCAQMD lists additional criteria indicating when a project may create potential air quality impacts.[16] These criteria are listed below along with an analysis of whether or not the project meets any of them. If a project meets any one of the criteria, project air quality impacts would be significant relative to that criterion.

AIR-3: Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.

SCAQMD's *CEQA Air Quality Handbook* suggests that an air quality modeling analysis (i.e., dispersion modeling) may be performed that identifies the project's potential impact on ambient air quality. A project would not create potential significant adverse air quality impacts if the dispersion modeling demonstrates that the project's incremental emissions would not increase the frequency or the severity of existing air quality violations, or contribute to a new violation.[17] The CO modeling analysis for operational-related traffic emissions, as discussed under Impact **AIR-5**, demonstrates that the project's CO emissions do not exceed this criterion. With respect to the other pollutants (i.e., NO_x, SO_x, VOC, and PM_{10}), SCAQMD staff have stated that air quality dispersion models do not currently exist for general development projects that can determine if the project's NO_x, SO_x, VOC, and PM_{10} emissions would increase the frequency or the severity of existing air quality violations, or contribute to a new violation.[18] Therefore, no such air quality dispersion analysis can be undertaken for this Master Plan. Instead, SCAQMD staff state that a project's consistency with the population number and location assumptions identified by SCAG and used in the preparation of the AQMP should be assessed as required by the next criterion.

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16 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, November 1993), pp. 6-2 – 6-3.

17 Ibid., p. 12-3.

18 Interview with Steve Smith, South Coast Air Quality Management District, Diamond Bar, California, February 23, 1996.

AIR-4: Project could result in population increases within an area which would be in excess of that projected by SCAG in the AQMP, or increase the population in an area where SCAG has not projected that growth for the project's build-out year.

The 2003 AQMP is designed to accommodate planned growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region by 2010, and to minimize the impact on the economy. Projects that are considered to be consistent with the 2003 AQMP do not interfere with attainment and do not contribute to the exceedance of an existing air quality violation because this growth is included in the projections utilized in the formulation of the 2003 AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the 2003 AQMP would not jeopardize the long-term attainment of the air quality levels identified in the 2003 AQMP, even if they exceed the SCAQMD's recommended thresholds.

Projects that are consistent with the projections of population forecasts identified in the Growth Management Chapter of SCAG's RCPG are considered consistent with the 2003 AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the 2003 AQMP. As discussed in **Section 3.5, Population and Housing**, the on-campus population growth under the Master Plan is consistent with the future population figures projected by SCAG for the City of Los Angeles and is consistent the Northridge Community Plan. Because the Master Plan would not increase population levels over those projected for the region, implementation of the Master Plan would be consistent with the 2003 AQMP forecasts for this area, would be considered consistent with the air quality-related regional plans, and would not jeopardize attainment of state and federal ambient air quality standards in the San Fernando Valley area or the Basin.

Another means of assessing 2003 AQMP consistency for this criterion is to determine how a project accommodates the expected increase in population and employment. Generally, if a project is planned in a way that results in the minimization of vehicle miles traveled (VMT) both within the project and in the community in which it is located, and consequently the minimization of air pollutant emissions, that project is deemed to be consistent with the 2003 AQMP.[19]

To reduce the volume of campus-related traffic and the need for on-campus parking, the Master Plan proposes an Alternative Transportation Plan to facilitate the use of public transit. Master Plan features include a multimodal transit hub on the western edge of campus, close to Reseda Boulevard bus routes and freeway access; expansion of the existing campus tram system; and establishment of a new, off-

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[19] South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), p. 12-5.

campus MTA bus stop. Some students are likely to use these mass transit facilities. As such, implementation of the Master Plan would minimize VMT both within the Master Plan and the community and, therefore, air emissions. Furthermore, the Master Plan includes additional on-campus housing, which will reduce commute trips and VMT associated with CSUN.

AIR-5: Project could generate vehicle trips that cause a CO hotspot or project could be occupied by sensitive receptors that are exposed to a CO hotspot.

Maximum CO concentrations for Master Plan area intersections were calculated for peak hour traffic volumes at each of these intersections using CALINE4, a dispersion model for predicting CO concentrations near roadways. Of the 46 intersections evaluated in the traffic impact analysis for the Master Plan, a CO hotspots analysis was conducted for 36 intersections. Ten intersections were projected to have a Level of Service C or better, which is not likely to result in an exceedance of the CO ambient air quality standards.

For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening model developed by the Bay Area Air Quality Management District (BAAQMD). The simplified model is intended as a screening analysis that identifies a potential CO hotspot. If a hotspot is identified, the complete CALINE4 model is then utilized to determine precisely the CO concentrations predicted at the intersections in question. This methodology assumes worst-case conditions (i.e., wind direction is parallel to the primary roadway and 90 degrees to the secondary road, wind speed of less than 1 meter per second, and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations. The simplified approach is acceptable to the SCAQMD as long as it is used consistently with the BAAQMD Guidelines.[20]

The simplified CALINE4 screening procedure was used to predict post-development CO concentrations 25 and 50 feet from the intersections in the Master Plan area's traffic impact analysis. The results of air emissions modeling for the project study area are shown in **Table 3.2-10, Carbon Monoxide Concentrations with Project Traffic**. Because SCAQMD projects reductions in future one-hour concentrations for the West San Fernando Valley (SRA 6)[21] and CO emissions from motor vehicles will decrease, projected CO concentrations are anticipated to be very low in future years.

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20 Personal communication with Steve Smith, Program Supervisor, South Coast Air Quality Management District, Diamond Bar, California, 12 May 2004.

21 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), Table 5-2.

Table 3.2-10
Carbon Monoxide Concentrations with Project Traffic
(ppm)

Intersection	25 Feet		50 Feet	
	1-Hour[1]	8-Hour[2]	1-Hour[1]	8-Hour[2]
Amigo Avenue (SR-118) WB Ramps & Rinaldi Street	7.1	5.9	7.0	5.9
Reseda Boulevard & Rinaldi Street	7.2	5.9	7.1	5.8
Balboa Boulevard. & SR-118 WB Ramps	7.0	5.8	6.9	5.7
Balboa Boulevard. & SR-118 EB Ramps	7.1	5.8	7.0	5.8
Reseda Boulevard & Chatsworth Street	7.0	5.8	6.9	5.7
Zelzah Avenue & Chatsworth Street	6.9	5.7	6.9	5.7
Balboa Boulevard & Chatsworth Street	7.0	5.8	6.9	5.7
Reseda Boulevard & Devonshire Street	7.1	5.8	7.0	5.8
Lindley Avenue & Devonshire Street	7.0	5.8	6.9	5.7
Zelzah Avenue & Devonshire Street	7.1	5.8	7.0	5.8
Balboa Boulevard & Devonshire Street	7.1	5.9	7.0	5.8
Woodley Avenue & Devonshire Street	7.0	5.8	6.9	5.8
I-405 SB Ramps/Blucher Avenue & Devonshire Street	7.0	5.8	6.9	5.7
Tampa Avenue & Lassen Street	7.1	5.8	7.0	5.8
Wilbur Avenue & Lassen Street	7.0	5.8	6.9	5.7
Reseda Boulevard & Lassen Street	7.1	5.9	7.0	5.8
Lindley Avenue & Lassen Street	7.0	5.8	6.9	5.7
Zelzah Avenue & Lassen Street	7.1	5.8	7.0	5.8
Balboa Boulevard & Lassen Street	7.0	5.8	6.9	5.8
Tampa Avenue & Plummer Street	7.1	5.8	7.0	5.8
Reseda Boulevard & Plummer Street	7.1	5.8	7.0	5.8
Zelzah Avenue & Plummer Street	7.0	5.8	6.9	5.7
White Oak Avenue & Plummer Street	6.7	5.7	6.7	5.6
Balboa Boulevard & Plummer Street	7.0	5.8	6.9	5.7
Reseda Boulevard & Prairie Street	7.0	5.8	6.9	5.7
Zelzah Avenue & Prairie Street	6.9	5.7	6.8	5.7
Tampa Avenue & Nordhoff Street	7.1	5.9	7.0	5.8
Reseda Boulevard & Nordhoff Street	7.2	5.9	7.1	5.8
Darby Avenue & Nordhoff Street	7.0	5.8	6.9	5.7
Lindley Avenue & Nordhoff Street	7.1	5.9	7.0	5.8
Zelzah Avenue & Nordhoff Street	7.1	5.9	7.0	5.8
Balboa Boulevard & Nordhoff Street	7.1	5.8	7.0	5.8
Woodley Ave. & Nordhoff Street	7.1	5.8	7.0	5.8
I-405 SB Ramps & Nordhoff Street	7.1	5.9	7.0	5.8
I-405 NB Ramps & Nordhoff Street	7.0	5.8	6.9	5.7
Lindley Avenue & Parthenia Street	7.1	5.9	7.0	5.8

Source: Impact Sciences, Inc. The CO concentration calculations are provided in ***Appendix B****.*

[1] *State standard is 20.0 parts per million. Federal standard is 35 parts per million.*

[2] *State standard is 9.0 parts per million. Federal standard is 9 parts per million.*

As shown in **Table 3.2-10**, the state and federal one- and eight-hour CO standards would not be exceeded at any of the modeled on- or off-site intersections at Master Plan buildout in 2035. Therefore, CO hotspots are not predicted to exist near these intersections in the future and the contribution of project traffic-related CO at these intersections would not be considered significant.

AIR-6: Project will have the potential to create, or be subjected to, an objectionable odor that could impact sensitive receptors.

The proposed residential, institutional, and recreational uses at CSUN would not generate objectionable odors. These uses typically do not generate objectionable odors. In addition, the *CEQA Air Quality Handbook* indicates typical sources that might generate odor impacts to sensitive receptors (e.g., residences) at a project site might include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, and composting, among others.[22] No such land uses are located in proximity to CSUN such that they would generate objectionable odors that would be detected on the project site. Consequently, no significant impacts from such odors are anticipated under this criterion.

AIR-7: Project will have hazardous materials on site and could result in an accidental release of toxic air emissions or acutely hazardous materials posing a threat to public health and safety.

As described in **Section 3.3, Hazards and Hazardous Materials**, CSUN will house hazardous materials that could pose a threat to the public's health and safety. Some critical hazardous materials that will be stored at the project site include: Plutonium-239 (radioactive), Americum-241 (radioactive), hydrochloric acid, acetylene, and methanol. If accidentally released, these compounds could cause deleterious effects to the surrounding populations through a variety of routes. However, existing procedures enforced by the CSUN Environmental Health and Safety office and compliance with federal, state, and local hazardous materials regulations would minimize such impacts. These procedures are discussed in further detail in **Section 3.3**. As stated in **Section 3.3**, the potential impacts due to accidental releases of hazardous materials would be less than significant.

AIR-8: Project could emit a toxic air contaminant regulated by SCAQMD rules or that is on a federal or state air toxics list;

AIR-9: Project could be occupied by sensitive receptors within one quarter mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401; or

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22 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (Diamond Bar, California: South Coast Air Quality Management District, April 1993), Figure 5-5, p. 5-11.

AIR-10: Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million.

A variety of hazardous or toxic materials, including chemicals in laboratories, cleaning products, and materials necessary to support operations of the campus, are stored or used in multiple locations on the CSUN campus. Some of these chemicals or their ingredients would be listed and federal or state air toxics lists. Generally, however, these chemicals are used in small quantities, and TAC emissions are not expected to occur in significant quantities due to operation of the proposed Master Plan. As a result, no significant impacts would occur under these criteria. Furthermore, any installation of equipment or processes subject to SCAQMD permit requirements would be required to demonstrate compliance with Rule 1401 (New Source Review of Toxic Air Contaminants) as part of the permit evaluation process. Rule 1401 limits the cancer risk associated with new equipment or processes to a maximum of ten in one million. Thus, the emissions from such new equipment or processes under the Master Plan are not expected to exceed these thresholds.

Accordingly, the emissions of TACs associated with the Master Plan's operational-related uses would be minimal and would be less than significant.

Operational Impacts Conclusion

Operational-related emissions generated by implementation of the Master Plan would exceed SCAQMD recommended emission thresholds of significance and, for that reason, the project is considered significant.

The Master Plan implementation would be consistent with the 2003 AQMP and, therefore, would not jeopardize the long-term attainment of the air quality standards predicted in the 2003 AQMP. The project also does not exceed the additional indicators of potential air quality impacts.

3.2.9 MITIGATION MEASURES

Construction Impacts

The SCAQMD has also prepared a list of recommended measures to reduce the impacts of construction-related emissions. CSUN shall include the following SCAQMD-recommended measures in its construction contract conditions:

AIR-1: Develop and implement a construction management plan, as approved by CSUN prior to issuance of a grading permit, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD:

a. Configure construction parking to minimize traffic interference.

b. Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person).

c. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable.

d. Re-route construction trucks away from congested streets.

e. Consolidate truck deliveries when possible.

f. Provide dedicated turn lanes for movement of construction trucks and equipment on and off site.

g. Maintain equipment and vehicle engines in good condition and in proper tune as per manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions.

h. Suspend use of all construction equipment operations during second stage smog alerts. Contact the SCAQMD at 800/242-4022 for daily forecasts.

i. Use electricity from power poles rather than temporary diesel- or gasoline-powered generators.

j. Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel if readily available at competitive prices.

k. Use propane- or butane-powered on-site mobile equipment instead of gasoline if readily available at competitive prices.

AIR-2: Develop and implement a dust control plan, as approved by CSUN prior to issuance of a grading permit, which includes the measures recommended by the SCAQMD, or equivalently effective measures approved by the SCAQMD, as provided in Rule 403 regarding fugitive dust from construction activities.

AIR-3: All on- and off-road construction equipment shall, to the extent feasible as determined by CSUN, use emulsified diesel fuel.

Measures recommended in the SCAQMD's *CEQA Air Quality Handbook* that cannot be implemented in connection with construction of the proposed project because they are infeasible are listed below along with a discussion of why each measure is infeasible:

- Prohibit truck idling in excess of two minutes: The nature of diesel motors does not lend them to constant turning on and off. Premature wear, and increased air emissions from turning the engines on and off, are common results. It is also difficult to effectively monitor the implementation of this measure with contractors who would be concerned about maintaining their equipment. Nonetheless, an ARB Airborne Toxics Control Measure (ATCM) for commercial trucks prohibits idling for more than five minutes. With some exceptions, the ATCM applies to all idling of commercial trucks during loading and unloading activities.

- Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees: SCAQMD Rule 2202 applied to all employers who meet certain criteria for implementing trip reduction measures. The requirement to achieve a specific AVR has been ruled unlawful by the federal government and is no longer recommended.

- Implement a shuttle service to and from retail services and food establishments during lunch hour: Construction workers typically take a half-hour lunch at various times of the day and eat on-site food that was either brought by the workers (brown bag) or purchased from mobile caterers who travel to the site.

Operational Impacts

AIR-4: CSUN shall comply with applicable Title 24 of the Uniform Building Code (UBC) energy conservation requirements.

Despite the trip reduction measures already incorporated into the Master Plan, operational emissions from project-related traffic would exceed suggested significance thresholds for VOC and NO_x and PM_{10} (in 2035). There are no feasible mitigation measures that could reduce the project emissions to a level below significant. However, it is recommended that all available Air Resources Boar (ARB) Airborne Toxics Control Measures (ATCMs) be implemented to reduce any/all identified impacts where feasible. Recommended ATCMs include:

AIR-5: To the extent CSUN has not previously implemented the following transportation control measures, as soon as reasonably feasible, CSUN, or its designee, will:

a. Provide preferential parking spaces on campus for employee carpools and vanpools;

b. Schedule truck deliveries and pickups for off-peak hours where feasible and require that delivery trucks turn off their engines if the anticipated duration of idling exceeds 5 minutes; and

c. Participate in public outreach programs that promote alternative methods of transportation.

Project Impacts after Mitigation

Several mitigation measures have been incorporated into the Master Plan, including but not limited to bicycle lanes, enhanced features to encourage walking between campus buildings, and provisions for transit. These measures have been accounted for in **Tables 3.2-6, 3.2-7, 3.2-8, and 3.2-9, Estimated Operational Emissions without Mitigation, Phases 1 through 4**. However, despite the many construction and transit-related measures incorporated into the Master Plan and the measures presented above, significant construction and operational air quality impacts would still occur. No additional mitigation measures are known that would reduce these impacts to levels less than significant.

3.2.10 CUMULATIVE IMPACTS

The *CEQA Air Quality Handbook* identifies possible methods to determine the cumulative significance of land use projects.[23] All of the SCAQMD's methods are based on performance standards and emission reduction targets necessary to attain the federal and state air quality standards identified in the 2003 AQMP. This EIR evaluates the following methods: (1) the SCAQMD method of whether the project shows a one percent per year reduction in project emissions of CO, VOC, NO_x, SO_x, and PM_{10}; (2) the SCAQMD method of whether the rate of growth in average daily trips exceeds the rate of growth in population; and (3) whether or not the project is consistent with 2003 AQMP and, thus, would jeopardize attainment of state and federal ambient air quality standards in the San Fernando Valley area or the Basin.

The assessment of whether or not the project shows a one percent per year reduction in project emissions of CO, VOC, NO_x, SO_x, and PM_{10} differs from the cumulative impacts analysis methodology used in other sections of this EIR in which all foreseeable future development within a given service boundary or geographical area is predicted and its impacts measured. However, this SCAQMD assessment method is consistent with the SCAQMD's overall goal to reduce emissions within the Basin in order to meet the standards set in the 2003 AQMP. As discussed previously, no additional mitigation measures are known that would reduce Master Plan construction and operational impacts to less than significant level. Feasible mitigation measures to enhance pedestrian travel and transit use would be incorporated into the project design. These measures are estimated to reduce trip generation, and correspondingly the motor vehicle emissions, by ten percent. Thus, implementation of these measures would result in a greater than one percent emission reduction relative to the emissions due to a project that did not include the transportation measures proposed in the Master Plan, and the project would not be considered to have significant cumulative impacts.

Another SCAQMD approach is to compare the rate of growth in VMT and trips is held to the rate of population growth. As specified in the *CEQA Air Quality Handbook*, the ratio of project VMT or average daily trips (ADT) to anticipated VMT or ADT in the city or country is compared to the ratio of the project population to the anticipated population in the city or county.[24] If the growth of VMT or ADT is less than the population growth, then the project is not considered to have a significant cumulative air quality impact. The relevant values are shown in **Table 3.2-11, Comparison of Growth of ADT to Population Growth**. As shown in **Table 3.2-11**, this criterion has been met, and the project would not be considered to have significant cumulative impacts.

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23 Ibid., p. 9-12; Written communication with Steve Smith, South Coast Air Quality Management District, 20 November 2003.

24 Ibid., p. A9-126.

Table 3.2-11
Comparison of Growth of ADT to Population Growth

	Average Daily Trips	Population
CSUN Master Plan	22,549[1]	10,527[2]
Los Angeles County	52,701,012[3]	12,221,799[4]
Ratio of Project to Los Angeles County	0.00043	0.00086

Source: Impact Sciences, Inc.
[1] *Increase in average daily trips at a rate of 2.38 trips per new student, less ten percent, per Master Plan traffic impact analysis.*
[2] *Number of new students associated with CSUN Master Plan.*
[3] *Estimated ADT in Los Angeles County in 2035 (project buildout year) as determined by EMFAC2002.*
[4] *Aggregated population in Los Angeles County in 2030 in SCAG 2004 Regional Transportation Plan. (*Source: Southern California Association of Governments. "City Projections." [Online] [April 28, 2005]. <http:/scag.ca.gov/forecast/index.htm>)

The third approach is to determine the project's consistency with the 2003 AQMP. The proposed Master Plan is within growth forecasts contained in the Growth Management Chapter of SCAG's RCPG, which forms the basis for the land use and transportation control portions of the 2003 AQMP. Therefore, it would be consistent with the 2003 AQMP, indicating that it would not jeopardize attainment of state and federal ambient air quality standards in the Basin.

Based on the results of these three approaches discussed above, the project would cause not significant cumulative impacts on air quality.

In addition to the above criteria, however, the operational emissions associated with the proposed project would exceed the recommended thresholds of significance for VOC, NOx, and/or PM_{10}, as shown in **Tables 3.2-6, 3.2-7, 3.2-8, and 3.2-9, Estimated Operational Emissions without Mitigation, Phases 1 through 4**. Because Basin is nonattainment for the state and federal ozone and PM_{10} standards, a project that creates individually significant air quality impacts for these pollutants or their precursors (VOC and NOx are precursors of both ozone and PM10) would also contribute to cumulatively significant air quality impacts. Thus, the proposed project would have considerable contribution to a significant cumulative impact as measured under this criterion.

3.2.11 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

Although the recommended mitigation measures, if feasible, would reduce the magnitude of construction and operational-related emissions to some extent, no feasible mitigations currently exist that would reduce all of these emissions to below the SCAQMD's recommended thresholds of significance. The Master Plan's construction-related emissions of VOC, NO_x, and CO and operational-related emissions of VOC, NO_x, and PM_{10} are considered unavoidably significant.

Because Mitigation Measure AIR-3 is based on technology that may not be available to the construction contractors, this mitigation measure may be infeasible. However, if this mitigation measure (or similar methods not yet commercially available, but developed during the 30-year Master Plan buildout) is found feasible at the time of construction**,** as shown in **Table 3.2-12, Estimated Mitigated Construction Emissions**, the project's construction-related NO_x and PM_{10} emissions would be reduced substantially. In particular, implementation of this mitigation measure, if feasible, would reduce NO_x and PM_{10} emissions by 14 percent and 63 percent, respectively. However, even with the implementation of this mitigation measure, if feasible, construction emission thresholds for VOC, NO_x, and CO emissions would still be exceeded. As noted in the discussion under the heading **Construction Emissions**, new diesel-powered equipment will have substantially lower NO_x and PM_{10} emissions commencing in 2001. The specific benefits of using such equipment for later phases of construction is speculative as the equipment choices of the contractors are unknown. Accordingly, based on current information, construction air quality impacts are considered significant.

Table 3.2-12
Estimated Mitigated Construction Emissions

		Emissions in Pounds per Day				
Construction Phase	**Year**	**VOC**	**NO_x**	**CO**	**SO_x**	**PM_{10}**
Phase 1	2006	71.20	467.64	525.12	0.06	19.33
	2007	71.13	447.15	541.36	0.00	8.49
	2008	217.40	447.87	602.35	0.00	8.18
Phase 2	2010	109.48	598.58	908.99	0.03	24.86
	2011	109.48	598.58	908.99	0.00	10.19
	2012	213.25	619.71	957.78	0.00	10.74
Phase 3	2015	90.86	498.60	753.28	0.13	23.44
	2016	90.86	498.60	753.28	0.00	8.48
	2017	176.87	519.01	795.30	0.00	8.95
Phase 4	2020	40.22	220.99	333.11	0.01	4.62
	2021	40.22	220.99	333.11	0.00	3.76
	2022	80.67	241.07	369.51	0.00	4.11
Maximum Emissions in Any Year		217.40	619.71	957.78	0.13	24.86
SCAQMD Thresholds		75	100	550	150	150
Exceeds Thresholds?		**YES**	**YES**	**YES**	NO	NO

*Source: Impact Sciences, Inc. Calculations can be found in **Appendix B**.*
Notes: Assumes that construction would occur in four phases, commencing in June 2006. Emissions are estimated for the first two years of each phase.
Assumes conformance with Rule 403 (Fugitive Dust) and use of emulsified fuel.

3.3 HAZARDS AND HAZARDOUS MATERIALS

3.3.1 INTRODUCTION

This section evaluates potential hazards and hazardous materials associated with implementation of the 2005 Master Plan. The analysis considers two potential risks: (1) risks that construction and operation of proposed Master Plan improvements could pose to the surrounding community; and (2) risks to students, faculty and staff at California State University, Northridge (CSUN) from on- and off-campus sources of hazards and hazardous materials.

3.3.2 METHODOLOGY

This section was prepared by evaluating potential human health and environmental impacts that could result from hazardous conditions and/or the known and likely presence of hazards and hazardous materials on the CSUN campus as a result of implementation of the proposed Master Plan. To determine the presence or absence of a potential impact, the evaluation criteria included within Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* and the Draft Los Angeles *CEQA Thresholds Guide* were used.

3.3.3 EXISTING CONDITIONS

Hazardous materials are present in a variety of common products, including, but not limited to, gasoline, paint, cleaning products, refrigerants, building materials, radioactive materials, medical wastes, and infectious substances. Exposure to a hazardous substance can occur through the routine, natural, or accidental emission of air toxics, and discharges to soil, groundwater, or surface water. Hazardous materials are transported, stored and disposed of in a variety of facilities, including railroads, pipelines, power lines, and waste disposal sites.

A variety of hazardous materials, including chemicals in labs, cleaning products, and materials necessary to support operations of the campus, are stored or used in multiple locations on the CSUN campus. A comprehensive inventory of all chemicals and hazardous substances known to be in use on the CSUN campus is maintained by the CSUN Environmental Health and Safety Office. To comply with federal, state, and local hazardous material regulations, CSUN is required to complete a Unified Program (UP) Form for every building, room, and chemical used, stored, transported and/or disposed of on the University campus. According to the inventory forms, the following buildings on the CSUN campus store, transport, and/or dispose of hazardous materials:

- Bookstore
- Brown Center
- Engineering
- Hazardous Waste
- Kinesiology
- Physical Plant Management
- Physical Plant Management, plant
- Reprographics
- Satellite University Student Union
- Science 1
- Science 2
- Science 3
- Science 4
- Speech Drama
- University Park Apartments
- University Park Apartments 13
- University Park Apartments 4
- University Park Apartments 8
- University Student Union
- Art and Design Center

Additionally, CSUN has inventoried all buildings on campus known to have asbestos-containing materials (ACMs). The CSUN Environmental Health and Safety Office has published a 2005 inventory of these buildings, which identifies the specific ACMs and their respective locations. This list includes the following buildings:[1]

- Asian American Studies
- Bank Building
- Black House
- Boiler House
- Bookstore
- Building "O"
- Building "S"
- Building "T"
- Chicano Cultural Center
- Child & Family Studies Lab School
- Engineering
- Faculty Office Building
- Green House
- Jerome Richfield Hall
- Kinesiology
- Music
- Nautilus Center
- Oviatt Library
- Science 1
- Science 2
- Sierra Hall
- Nordhoff Hall
- Student Health Center
- Women's Center
- Youth Services House

To account for the presence, use, storage, transport, and disposal of hazards and hazardous materials on the CSUN campus, the campus has prepared, adopted, and implemented numerous programs, policies, and procedures designed to protect not only the students, faculty, and staff on the University campus, but also to protect land uses surrounding the project site. A recently opened Los Angeles Unified School District high school is located on the eastern side of the CSUN campus, at the intersection of Zelzah Avenue and Halstead Street. Valley New High School No. 1, recently renamed as Northridge Academy

1 http://www-admn.csun.edu/ehos/asbestos_2005.htm. October 1, 2005.

High School, is located on approximately seven acres adjacent to the CSUN campus; under the CEQA Statute §§2100 et seq., schools are considered sensitive receptors to emission from any potentially hazardous materials that are handled or emitted within one-quarter mile and represent a potential public health risk. Also surrounding the campus is a mixture of low-density single-family and multi-family residential neighborhoods to the north, south, east, and west.

CSUN's Environmental Health and Safety Office's existing programs, policies, and procedures designed to protect students, faculty, staff, and surrounding residents are focused on the following:[2]

- Asbestos Awareness Program
- Bloodborne Pathogens Exposure Control
- Chemical Hygiene Program
- Chemical Procurement Program
- Confined Space Entry Program
- Defensive Driver Training Program
- Employee Health and Safety Handbook
- Ergonomics Written Program
- Hazard Communication Manual
- Hearing Conservation Program
- Illness and Injury Prevention Program
- Powered Cart and Low-Speed Vehicle Safety Program
- Radiation Safety Program
- Radiation Safety Policy
- Repetitive Motion Injury Prevention Plan
- Respiratory Protection Program
- Rules for Selling Potentially Hazardous Food
- Stress Management Primer
- University Policy on Smoking
- Use of University and Private Vehicle Guidelines

The Environmental Health and Safety Office has also prepared and adopted Campus Emergency Procedures for the following types of emergencies:[3]

- Building evacuations
- Criminal or violent behavior
- Earthquake preparedness and procedures
- Fire, explosion or similar incident
- Medical and first-aid treatment
- Bomb threat
- Civil disturbance
- Assisting persons with disabilities
- Emergency signals and reporting
- Hazardous materials spills/release

In addition to the Environmental Health and Safety's Campus Emergency Procedures, the CSUN Department of Public Safety has prepared Emergency Preparedness Recommendations for all students, faculty, and staff on the University campus. These preparedness recommendations are available at the following web address: http://www-admin.csun.edu/police/emergency.htm.

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2 http://www-admin.csun.edu/ehos/programs&procedures.htm, October 1, 2005.

3 http://www-admin.csun.edu/ehos/emergency.htm, October 5, 2005.

3.3.4 REGULATORY SETTING

CEQA Statute Public Resources Code (PRC) §21092.6 and Government Code 65962.5 (Lists Relating to Hazardous Waste)

To complete a CEQA-compliant evaluation of potential impacts associated with hazards and hazardous materials, the evaluation must consider CEQA Statute PRC §21092.6 and Government Code §65962.5 (Lists Relating to Hazardous Waste). Section 65962.5 of the Government Code requires the California Environmental Protection Agency (Cal/EPA) to compile, maintain, and update specified lists of hazardous material release sites. CEQA requires each lead agency to consult the lists compiled pursuant to Government Code §65962.5 to determine whether the project and any alternatives are identified on any of the lists.

For each project subject to CEQA, CSUN reviews the §65962.5 list and other available records, which include the following lists or databases:

- EPA National Priorities List (NPL): Lists all sites under the U.S. Environmental Protection Agency's (USEPA's) Superfund program, which was established to fund cleanup of contaminated sites that pose risk to human health and the environment.
- EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and Archived Sites: List contains 15,000 sites nationally identified as hazardous sites. This would also involve a review for archived sites that have been removed from CERCLIS due to No Further Remedial Action Planned (NFRAP) status.
- EPA Resource Conservation and Recovery Act Information System (RCRIS or RCRAInfo): A national inventory system about hazardous waste handlers. Generators, transporters, handlers, and disposers of hazardous waste are required to provide information for this database.
- Department of Toxic Substance Control (DTSC) Cortese List: The DTSC maintains the Hazardous Waste and Substances Sites (Cortese) List as a planning document for use by the state and local agencies to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database (CalSites).
- DTSC HazNet: DTSC uses this database to track hazardous waste shipments.
- SWRCB Leaking Underground Storage Tank (UST) Information System (LUSTIS): The State Water Resources Control Board (SWRCB) maintains an inventory of USTs and leaking USTs, which tracks unauthorized releases.

South Coast Air Quality Management District (SCAQMD) Rule 1403: Asbestos Emissions from Demolition/Renovation Activities

The SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, requires that the owner or operator of any demolition or renovation activity have the affected facility or facility components thoroughly surveyed for the presence of asbestos prior to such activity occurring. The

survey is required to include the inspection, identification, and quantification of all friable and Class I and Class II non-friable asbestos-containing material and any physical sampling of materials.

3.3.5 SIGNIFICANCE CRITERIA

A project would normally have a significant impact on the environment if it would "involve the use, generation, disposal, transport, or management of potentially hazardous or explosive substances (including but not limited to oil, pesticides, chemicals or radiation) in sufficient quantities to cause a potential hazard."[4] The level of significance of hazardous material impacts is decided on a case-by-case basis and is dependent upon factors such as: individual or cumulative physical hazard of materials; amounts of materials on site (either in use or in storage); proximity of hazardous materials to populated areas and compatibility of materials with neighboring facilities; federal, state, local laws, and ordinances governing storage and use of hazardous material; and the potential for spill or release.

Appendix G of the *CEQA Guidelines* indicates that the determination of significance shall be made on a case-by-case basis, considering the following factors:

HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

HAZ-4: Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

HAZ-5: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The CSUN campus is not located within an airport land use plan area, within two miles of either a public airport or a private airstrip, and is not located in an area at risk to damage from wildland fires. Therefore, this analysis does not address potential impacts related to airport or wildlife fire safety hazards.

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4 *Draft L.A. CEQA Thresholds Guide*, City of Los Angeles Environmental Affairs Department, May 14, 1998.

3.3.6 ENVIRONMENTAL IMPACTS

Program-Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next thirty years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents (FTE), over the next 30 years, as well as accommodate the evolving pedagogical needs of the University's academic, administrative, student support, and campus support departments and programs.

Potential hazards and hazardous material impacts generally occur either in the context of site location (i.e., location on a hazardous materials site) or in the context of project operations (hazards associated with the transport, use, or disposal of hazardous materials). Each potential impact is discussed below.

HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Presently, a number of existing uses and operations on the CSUN campus regularly transport, use, and/or dispose of hazardous materials generated by campus operations. All known hazardous materials users, generators, and disposers are inventoried, in compliance with federal and state regulations, by the CSUN Environmental Health and Safety Office. The latest inventory includes a list of all hazardous materials, including their chemical descriptions, located on the campus.

The transport, use, and/or disposal of the existing hazardous materials used and generated on campus is overseen by the CSUN Environmental Health and Safety Office in compliance with federal, state, and local regulations. Implementation of the proposed Master Plan would result in a maximum enrollment increase of an additional 10,000 FTEs and up to an additional 1,320 faculty and staff. Additional campus operations, buildings, instructional facilities, recreational facilities, and student and faculty/staff housing to support the enrollment, faculty, and staff increase would occur through implementation of the proposed Master Plan. The transport, use, storage, and disposal of hazardous materials at CSUN is likely to result from the increased student, faculty, and staff population on campus and the increased intensity of campus operations. However, implementation of the Master Plan is not anticipated to introduce new hazards or hazardous materials onto the CSUN campus; instead, quantities of existing hazardous materials used on campus may incrementally increase as the campus population and operations increase.

As in the case of existing transport, use, and/or disposal of hazardous materials, any increase or additional materials associated with Master Plan build out would be overseen by the CSUN Environmental Health and Safety Office in compliance with federal, state, and local regulations.

Additional use of hazardous materials would be documented in the annual UP Forms and would be subject to Environmental Health and Safety's existing programs, policies and procedures related to hazards and materials safety. Therefore, implementation of the proposed Master Plan would not result in the creation of significant hazards to the public through the routine storage, transport, and/or disposal of hazardous materials. No significant impacts would occur.

HAZ-2: With the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As previously stated, present campus operations already involve the transport, use, and/or disposal of hazardous materials. All known hazardous materials users, generators, and disposers are inventoried, in compliance with federal and state regulations, by the CSUN Environmental Health and Safety Office. The latest inventory includes a list of all hazardous materials, including their chemical descriptions, located on the campus. Additionally, all buildings known to have ACMs are inventoried by the Environmental Health and Safety Department.

The Environmental Health and Safety Office is aware of, and oversees, all hazardous materials present on the CSUN campus in compliance with federal, state, and local regulations. The Environmental Health and Safety Office has prepared and adopted numerous programs, policies and procedures intended to prevent accidents resulting from the release of hazardous materials into the environment. However, in the unlikely event of a real or potential release, the Environmental Health and Safety Office's emergency procedure for Hazardous Materials Spills/Releases is employed. This procedure requires immediate notification of the real or potential release to the Environmental Health and Safety Office, which then contacts the Los Angeles Fire Department (LAFD) and the Cal/EPA.

Implementation of the proposed Master Plan would result in a maximum enrollment increase of an additional 10,000 FTEs and an additional 1,320 faculty and staff. Additional campus operations, buildings, instructional facilities, recreational facilities, and student and faculty/staff housing to support the enrollment, faculty and staff increase would occur through implementation of the proposed Master Plan. The transport, use, storage, and disposal of hazardous materials at CSUN is likely to result from the increased student, faculty, and staff population on campus and the increased intensity of campus operations. Implementation of the Master Plan is not anticipated to introduce new hazards or hazardous materials onto the CSUN campus; instead, quantities of existing hazardous materials used on campus may incrementally increase as the campus population and operations increase.

Additionally, construction activities have the potential to result in the release of ACMs, lead from lead-based paint, and other known hazards and contaminants present in buildings. CSUN's Environmental Health and Safety Office is aware of, and has inventoried, all buildings known and potentially known to contain ACMs. Prior to the demolition of any portion of buildings containing asbestos, lead, and/or other hazardous materials, CSUN, in coordination with appropriate oversight agencies, will survey buildings for the presence of hazardous materials. In the event hazards are found to be present, these will be remediated and/or disposed of by CSUN's Environmental Health and Safety Office in compliance with all federal, state, and local regulations.

Therefore, in the event of a real or potential release of a hazardous substance, the same procedures currently in place at CSUN would be employed upon implementation of components of the proposed Master Plan, and no significant impacts are anticipated.

HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

As discussed in the Environmental Setting section above, one school is located within a quarter-mile of the CSUN campus: Los Angeles Unified School District's Northridge Academy High School, on the eastern side of the CSUN campus on Zelzah Avenue at Halstead Street. Existing uses and operations on the CSUN campus already involve the handling of hazardous materials within a quarter-mile of this high school. All known hazardous materials users, generators, and disposers are inventoried, in compliance with federal and state regulations, by the CSUN Environmental Health and Safety Office. The latest inventory includes a list of all hazardous materials, including their chemical descriptions, located on the campus.

The Environmental Health and Safety Office is aware of and oversees all hazardous materials present on the CSUN campus in compliance with federal, state, and local regulations. The Environmental Health and Safety Office has prepared and adopted numerous programs, policies and procedures intended to prevent accidents resulting from the release of hazardous materials into the environment. However, in the unlikely event of a real or potential release, the Environmental Health and Safety Office's emergency procedure for Hazardous Materials Spills/Releases is employed. This procedure requires immediate notification of the real or potential release to the Environmental Health and Safety Office, who then contacts the LAFD and the Cal/EPA. The Los Angeles Unified School District and high school administrative personnel would also be notified in the event of a real or potential release.

Implementation of the proposed Master Plan would result in a maximum enrollment increase of an additional 10,000 FTEs and an additional 1,320 faculty and staff at CSUN. Additional campus operations,

buildings, instructional facilities, recreational facilities and student and faculty/staff housing to support the enrollment, faculty and staff increase would occur through implementation of the proposed Master Plan. Directly resulting from the population growth on campus and increased intensity of uses at CSUN would likely be an increase in quantity of hazardous materials present on the CSUN campus. Implementation of the Master Plan is not anticipated to introduce new hazards or hazardous materials onto the CSUN campus; instead, quantities of existing hazardous materials used on campus may incrementally increase as the campus population and operations increase.

Additionally, construction activities have the potential to result in the release of ACMs, lead from lead-based paint, and other known hazards and contaminants present in buildings. CSUN's Environmental Health and Safety Office is aware of, and has inventoried, all buildings known and potentially known to contain asbestos materials. Prior to the demolition of any portion of buildings containing asbestos, lead, and/or other hazardous materials, CSUN, in coordination with appropriate oversight agencies, will survey buildings for the presence of hazardous materials. In the event hazards are found to be present, these will be remediated and/or disposed of by CSUN's Environmental Health and Safety Office in compliance with all federal, state, and local regulations.

Therefore, in the event of a real or potential release of a hazardous substance, the same procedures currently in place at CSUN would be employed upon implementation of the proposed Master Plan, thus preventing significant impacts from occurring at the adjacent Northridge Academy High School.

HAZ-4: Would the project be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Presently, the CSUN campus is not known to be listed on a hazardous materials site list compiled pursuant to Government Code §65962.5. However, due to the unknown state of hazardous materials site listings on the CSUN campus, construction and operational activities associated with implementation of the proposed Master Plan could have the potential to create a hazard to the public and/or the environment. This is considered a potentially significant impact. With implementation of Mitigation Measures HAZ-1 through HAZ-5, below, impacts would be reduced to less than significant levels.

HAZ-5: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The CSUN Department of Public Safety has prepared and publicized emergency preparedness recommendations, and the Environmental Health and Safety Office has prepared and adopted campus emergency procedures for use on the CSUN campus in the event of a variety of emergencies. The

response procedures address building evacuations; criminal or violent behaviors; earthquake preparedness and procedures; fire, explosion or similar incidents; medical and first-aid treatment; bomb threats; civil disturbances; assisting persons with disabilities; emergency signals and reporting; and hazardous material spills/releases.

All development proposed in the Master Plan would take place on the existing CSUN campus and would take into account existing emergency routes, response procedures and action plans. However, as a result of altered building locations and potential road closures or realignments, the potential exists for partial impedance and/or alteration of existing response routes, procedures, and evacuation plans. CSUN's Department of Public Safety and Environmental Health and Safety Office would review and update all emergency preparedness recommendations and campus emergency response and evacuation procedures to reflect changes in campus layout through implementation of the proposed Master Plan. Therefore, implementation of the proposed Master Plan would not have the potential to significantly interfere with the campus's adopted emergency preparedness recommendations and/or the emergency response procedures.

Near-Term Project-Level Analysis

As stated in **Section 2.0**, **Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Center, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, the Science 5 facility, and 250 faculty/staff housing units. Phase 2 development projects include Parking Structure G6, Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities, the Student Recreation Center, and 100 faculty/staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Implementation of the near-term projects proposed under Phases 1 and 2, as well as the proposed Valley Performing Arts Center, would result in the same impacts already identified for build out of the Master

Plan. That is, each project would likely incrementally increase the quantities of hazardous materials on campus. As previously stated, the Environmental Health and Safety Office has prepared and adopted numerous programs, policies, and procedures intended to prevent accidents resulting from the release of hazardous materials. Moreover, as each project is developed and implemented, CSUN's Environmental Health and Safety Office would be required to demonstrate compliance with applicable federal, state, and local regulations governing the transport, use, and disposal of hazardous materials.

The Environmental Health and Safety Office maintains an inventory of all known hazardous substances present on the University, including ACMs. Prior to any necessary demolition of buildings for implementation of the proposed near-term Master Plan projects, the Environmental Health and Safety Office is required to survey buildings for other potentially hazardous materials, in coordination with appropriate oversight agencies. In the event hazards are found to be present, they would be disposed of by the Environmental Health and Safety Office in compliance with all federal, state, and local regulations.

For these reasons, implementation of the proposed near-term Master Plan projects would result in less than significant impacts related to hazards associated with: the routine transport, use, or disposal of hazardous materials; reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; and hazardous emissions or the handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

HAZ-4: Would the project be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

As previously stated, the CSUN campus is not known to be listed on a hazardous materials site list compiled pursuant to Government Code §65962.5. However, because of the unknown state of hazardous materials site listings on the CSUN campus, construction and operational activities associated with implementation of the proposed near-term Master Plan could have the potential to create a hazard to the public and/or the environment. This is considered a potentially significant impact. With implementation of Mitigation Measures HAZ-1 through HAZ-5, previously listed, impacts would be less than significant.

HAZ-5: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

As previously stated under program-level analysis of the Master Plan, CSUN's Department of Public Safety has prepared and publicized emergency preparedness recommendations, and the Environmental

Health and Safety Office has prepared and adopted campus emergency procedures for use on the CSUN campus in the event of a variety of emergencies. The response procedures address building evacuations; criminal or violent behaviors; earthquake preparedness and procedures; fire, explosion or similar incidents; medical and first-aid treatment; bomb threats; civil disturbances; assisting persons with disabilities; emergency signals and reporting; and hazardous material spills/releases.

All development proposed in the Master Plan would take place on the existing CSUN campus and would take into account existing emergency routes, response procedures and action plans; although the potential exists for partial impedance and/or alteration of existing response routes, procedures, and evacuation plans as a result of altered building locations and potential road closures or realignments. CSUN's Department of Public Safety and Environmental Health and Safety Office would review and update all emergency preparedness recommendations and campus emergency response and evacuation procedures to reflect changes in campus layout through implementation of the proposed Master Plan. Implementation of proposed near-term Master Plan projects would not have the potential to significantly interfere with the campus's adopted emergency preparedness recommendations and/or the emergency response procedures.

3.3.7 MITIGATION MEASURES

Program-Level Analysis

The following mitigation measures are applicable to impacts identified under significance criteria HAZ-4 and are required to reduce impacts related to hazards and hazardous materials to less than significant levels.

HAZ-1: For each proposed project to be implemented under the CSUN Master Plan, CSUN shall consult specified comprehensive lists of contaminated sites to determine whether the site contains hazardous materials (PRC §21092.6, Government Code §65962.5). Where a proposed project is identified on one of the lists, CSUN shall determine whether the site's hazardous materials pose a significant threat to the public and/or the environment.

HAZ-2: If a proposed project site is listed as a contaminated site and poses a significant threat to the public and/or the environment, in accordance with Mitigation Measure HAZ-1, or if site contamination is known or believed to exist by CSUN, CSUN shall, as necessary, conduct a Phase I environmental assessment of that site. Based on the results of the Phase I environmental assessment, in conjunction with the LARWQCB and/or DTSC, CSUN and the agency(s) shall determine whether or not additional investigation is needed on the proposed project site. The

results of each investigation shall be shared with the Los Angeles Regional Water Quality Control Board (LARWQCB) and/or the California State Department of Toxic Substances Control (DTSC).

HAZ-3: If additional study is deemed to be needed and CSUN intends to proceed with the proposed project, additional investigation of the site shall be conducted in compliance with the requirements set forth by either LARWQCB or DTSC. The environmental evaluation shall include review of the historical use of the property, field sampling and analysis, estimates the potential threat to public health, and assesses potential impacts from off-site sources to the project. Based on review of the additional environmental assessment, either LARWQCB or DTSC would then make a decision on the potential risks posed by the site. This determination shall include one of three options: (1) further investigation is needed through additional more intensive investigations, (2) a removal action is needed; a cleanup agreement would be made between either LARWQCB or DTSC and CSUN, or (3) No Further Action is needed on the site.

HAZ-4: If removal action is required, CSUN shall take necessary steps to ensure proper handling of hazardous materials removed from the site and minimize the potential risks in accordance with the requirements of the public health oversight agency (LARWQCB or DTSC).

HAZ-5: CSUN shall incorporate information regarding site investigations in subsequent environmental review documents prepared for specific projects, which shall be available to the public for review and comment as required by CEQA. The public has the opportunity to review the site-specific investigations through either LARWQCB's or DTSC's public review process.

Near-Term Project-Level Analysis

Mitigation Measures HAZ-1 through HAZ-5 would be applicable to impacts under significance criteria HAZ-4 and would reduce impacts to less than significant levels.

3.3.8 CUMULATIVE IMPACTS

The proposed project could result in a nominal, incremental increase in the quantities of hazardous materials stored, used, transported, and/or disposed of by CSUN operations. The proposed increase in students, faculty, and staff at CSUN, combined with the proposed increased intensity of operations on the campus, could increase demand for and use of, hazardous materials required for daily operations at CSUN. However, the presence of additional hazardous materials on the campus as a result of the proposed Master Plan would be minimal and would be overseen and managed by the CSUN Environmental Health and Safety Office in compliance with federal, state, and local hazardous materials regulations. Therefore, implementation of the Master Plan would result in a less than significant

contribution to a cumulatively considerable increase in the presence of hazardous materials on the University campus and in the project area.

3.3.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

With implementation of the required mitigation measures, impacts related to hazards and hazardous materials would be less than significant.

3.4.1 INTRODUCTION

This section of the EIR addresses potential noise impacts that could result from implementation of the 2005 Master Plan. This analysis is based in part on the traffic study prepared for the project by Kaku Associates, Inc. (July 2005). Noise prediction modeling was also conducted for this analysis and utilized the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108). Modeling data referenced in this analysis is provided in **Appendix C**.

3.4.2 METHODOLOGY

Introduction to Noise

Noise is usually defined as unwanted sound and can be an undesirable by-product of society's normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, causes actual physical harm, or has an adverse effect on health. The definition of noise as unwanted sound implies that it has an adverse effect or causes a substantial annoyance to people and their environment.

Noise is measured on a logarithmic scale of sound pressure known as a decibel (dB). Sound pressure level alone is not a reliable indicator of loudness because the human ear does not respond uniformly to sounds at all frequencies. For example, it is less sensitive to low and high frequencies than to medium frequencies that more closely correspond with human speech. In response to the human ear sensitivity, or lack thereof to different frequencies, the A-weighted noise level, referenced in units of dB(A), was developed to better correspond with people's subjective judgment of sound levels. In general, changes in a community noise level of less than 3 dB(A) are not typically noticed by the human ear.[1] Changes of 3 to 5 dB(A) may be noticed by individuals who are extremely sensitive to changes in noise. An increase of greater than 5 dB(A) is readily noticeable, while the human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound volume. A doubling of sound energy results in a 3 dB(A) increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. Common noise levels associated with certain activities are shown on **Figure 3.4-1, Common Noise Levels**.

Noise sources take two forms: (1) point sources, such as stationary equipment or individual motor vehicles; and (2) line sources, such as a roadway with numerous mobile point sources (i.e., motor vehicles). Sound generated by a stationary point source typically diminishes (attenuates) at a rate of 6

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1 U.S. Department of Transportation, Federal Highway Administration, *Highway Noise Fundamentals*, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.

dB(A) for each doubling of distance from the source to the receptor at acoustically "hard" sites, and it attenuates at a rate of 7.5 dB(A) at acoustically "soft" sites.[2] For example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically "hard" site would be 54 dB(A) at 100 feet from the source, and it would be 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively.[3] Man-made or natural barriers can also attenuate sound levels, as illustrated in **Figure 3.4-2, Noise Attenuation by Barriers**. Solid walls may reduce noise levels by 5.0 to 10.0 dB(A) depending on their height and their horizontal distance relative to the noise source and the noise receptor.[4] A higher noise barrier lengthens the path of a sound wave from the source to the receptor. The longer the distance a sound wave needs to travel to reach the receptor, the greater the sound attenuation.

The minimum attenuation of exterior-to-interior noise provided by typical structures in California is provided in **Table 3.4-1, Outside-to-Inside Noise Attenuation.**

Table 3.4-1[1]
Outside-to-Inside Noise Attenuation

Building Type	Open Windows	Closed Windows[2]
Residences	17	25
Schools	17	25
Churches	20	30
Hospitals/Convalescent Homes	17	25
Offices/Retail	17	25
Theaters	20	30
Hotels/Motels	17	25

Source: Transportation Research Board, National Research Council, Highway Noise: A Design Guide for Highway Engineers, National Cooperative Highway Research Program Report 117.

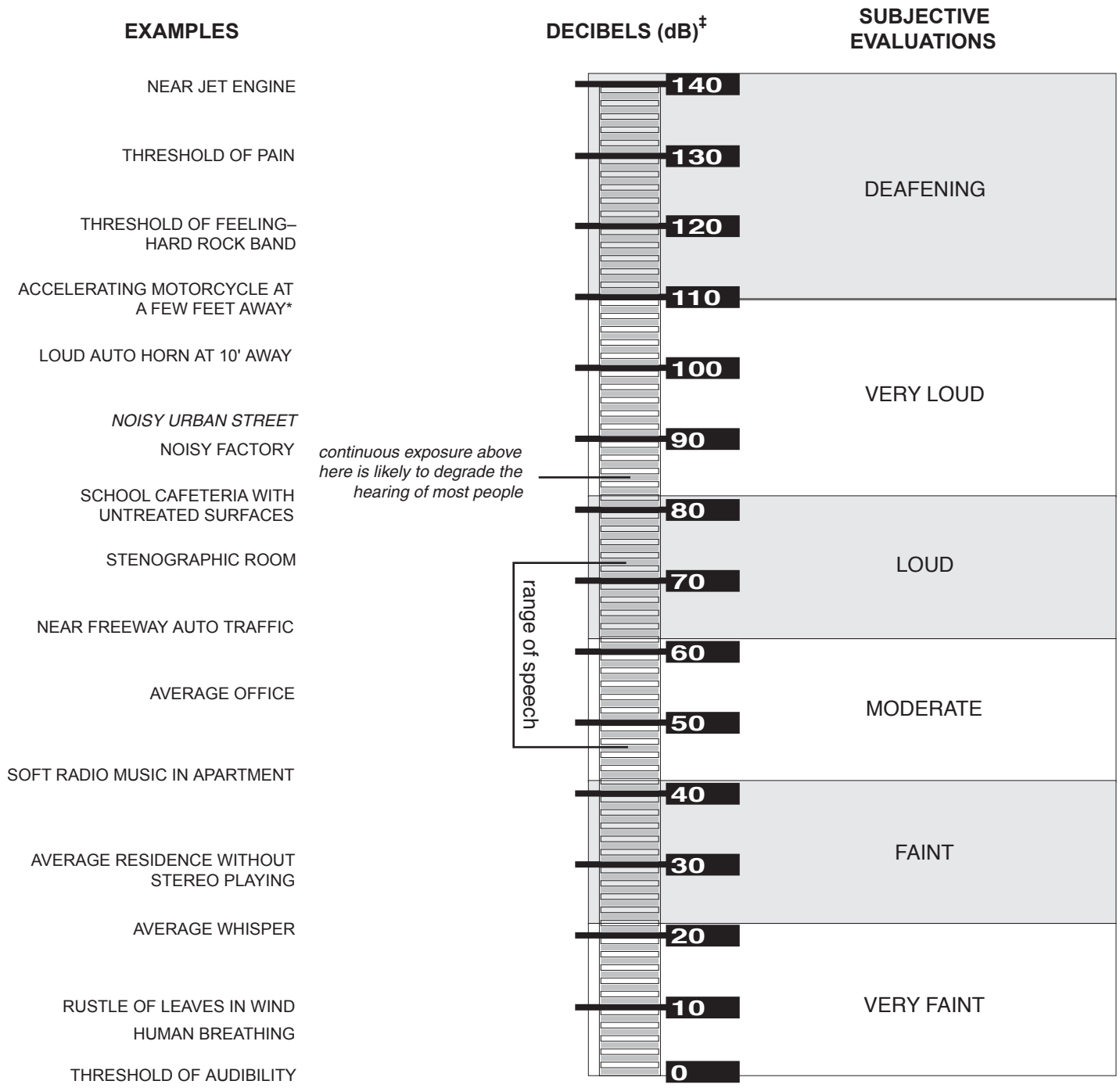
[1] *Levels are measured in dB(A).*

[2] *As shown, structures with closed windows can attenuate exterior noise by a minimum of 25 to 30 dB(A).*

2 Ibid., p. 97. A "hard" or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt, concrete, and very hard packed soils. An acoustically "soft" or absorptive site is characteristic of normal earth and most ground with vegetation.

3 U.S. Department of Transportation, Federal Highway Administration, *Highway Noise Fundamentals*, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 97.

4 Ibid., p. 18.

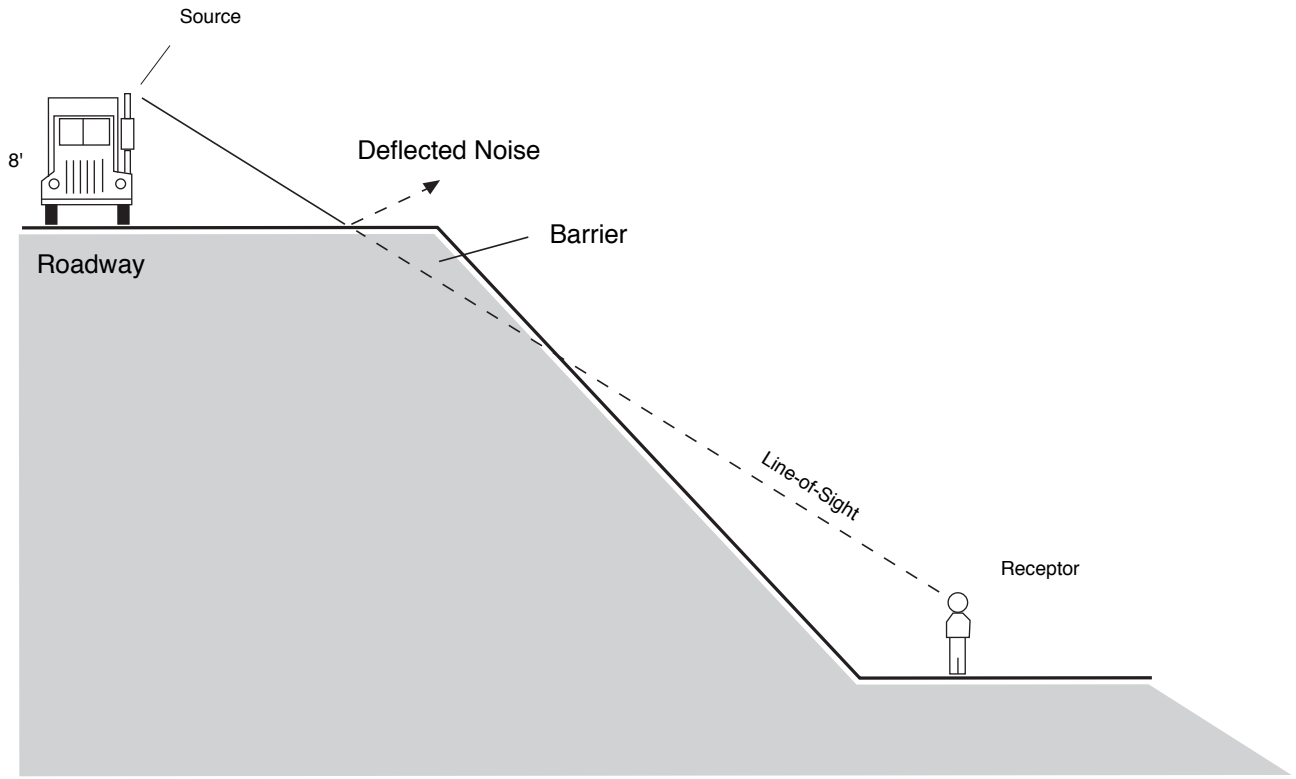


** NOTE: 50' from motorcycle equals noise at about 2000' from a four-engine jet aircraft.*

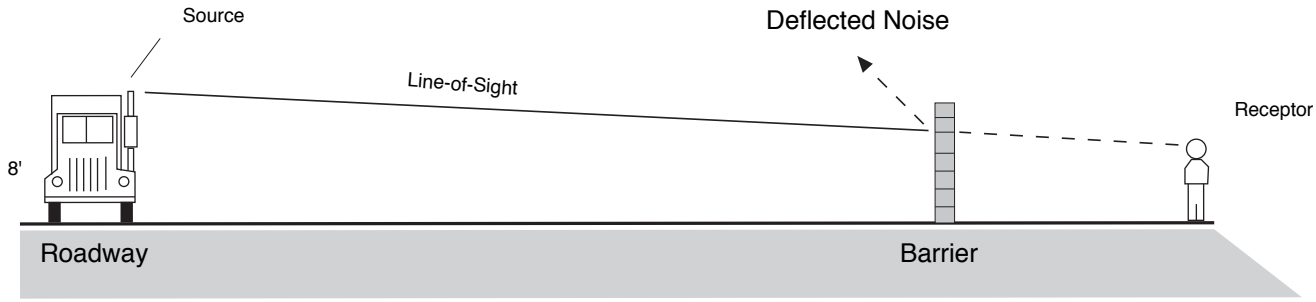
‡NOTE: dB are "average" values as measured on the A–scale of a sound–level meter.

FIGURE **3.4-1**

Common Noise Levels



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: Impact Sciences, Inc. – October 2005

FIGURE **3.4-2**

Noise Attenuation by Barriers

750-001•10/04

When assessing community reaction to noise, a scale is needed that averages varying noise exposure over time and quantifies the result in terms of a single number descriptor. Several scales have been developed that address community noise levels. Those that are applicable to this analysis are the Equivalent Noise Level (L_{eq}) and the Community Noise Equivalent Level (CNEL). L_{eq} is the average A-weighted sound level measured over a given time interval. L_{eq} can be measured over any time period but is typically measured for one-minute, 15-minute, one-hour, or 24-hour periods. CNEL is another average A-weighted sound level measured over a 24-hour period. However, this noise scale is adjusted to account for some individual's increased sensitivity to noise levels during evening and nighttime hours. A CNEL noise measurement is obtained after adding five decibels to sound levels occurring during the evening from 7:00 PM to 10:00 PM and 10 decibels to sound levels occurring during the nighttime from 10:00 PM to 7:00 AM. The logarithmic effect of these additions is that a 60 dB(A), 24-hour L_{eq} would result in a measurement of 66.7 dB(A) CNEL.

3.4.3 EXISTING CONDITIONS

The ambient noise environment on and around the California State University, Northridge (CSUN) campus is characterized by a mix of point and mobile noise sources. At present, major mobile noise sources on the campus include traffic on campus roadways and in parking facilities, and landscape maintenance activities, all of which can be audible to off-site land uses along the campus periphery. On-campus stationary noise sources generally contribute less to the ambient sound environment, since most campus operations are confined to the campus interior and are generally quieter than numerous mobile noise sources.

Noise levels in the project area are highest along the major roadways, including State Route 118 (SR-118), Nordhoff Street, Devonshire Street, and Reseda Boulevard. Off-campus stationary sources of noise include the residential and commercial land uses surrounding the campus. The range of noise sources and associated noise levels in the project area are summarized below.

Roadway Noise in the Project Area

The CSUN campus is located in a predominantly suburban neighborhood and, as previously mentioned, is bordered by several major roadways. Area traffic represents the dominant, and most consistent, source of noise in the area surrounding the campus. In order to characterize the ambient noise environment for noise-sensitive land uses in the study area, off-site noise prediction modeling was conducted. The existing ambient noise environment for off-site roadways was determined by calculating noise levels from vehicular traffic along specific roadway segments.

Since vehicular noise is the dominant source of noise in the area, noise levels at several locations were modeled using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108). This model calculates the average noise level at specific locations based on traffic volumes, auto/truck mix, average speeds, roadway geometry, and site conditions. Average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans).[5] Caltrans data show that California automobile noise is 0.8 to 1.0 dB(A) louder than national levels and that medium and heavy truck noise is 0.3 to 3.0 dB(A) quieter than national levels.[6] Traffic volumes utilized as data inputs to the noise prediction model were based on information provided by Kaku Associates, Inc., the project traffic engineer, and are consistent with analysis provided in **Section 3.8, Transportation and Traffic**, of this EIR.

Table 3.4-2, Existing Modeled Roadway Noise Levels, identifies the existing roadway noise levels for the 96 roadway segments analyzed in the traffic study prepared for the master plan. Roadway noise levels for the following roadways were modeled at various reference locations based on approximate roadway width. The roadways were modeled at reference locations of 100 feet from the roadway centerline. As is indicated in **Table 3.4-2** existing roadway noise levels at reference locations of 100 feet from the roadway currently range from 44.5 to 83.8 dB(A) CNEL.

Table 3.4-2
Existing Weekday Modeled Roadway Noise Levels

Roadway Segment	Existing (2005) CNEL in dB(A)
118 WB Ramps S/O Rinaldi St.	83.5
Rinaldi St. E/O 118 WB Ramps	67.6
Reseda Blvd. N/O Rinaldi St.	60.7
Rinaldi St. E/O Reseda Blvd.	65.8
Reseda Blvd. N/O 118 EB Ramps	65.7
Reseda Blvd. S/O 118 EB Ramps	67.2
118 EB Ramps W/O Reseda Blvd.	83.3
Balboa Blvd. N/O 118 WB Ramps	66.6
Balboa Blvd. S/O 118 WB Ramps	66.7
118 WB Ramps E/O Balboa Blvd.	83.8
Balboa Blvd. N/O 118 EB Ramps	66.7
Balboa Blvd. S/O 118 EB Ramps	66.5
118 EB Ramps E/O Balboa Blvd.	83.7
Reseda Blvd. N/O Chatsworth St.	66.6
Reseda Blvd. S/O Chatsworth St.	66.9
Chatsworth St. W/O Reseda Blvd.	63.1
Chatsworth St. E/O Reseda Blvd.	63.8
Zelzah Ave. N/O Chatsworth St.	61.5
Zelzah Ave. S/O Chatsworth St.	62.9
Chatsworth St. E/O Zelzah Ave.	63.7

5 Rudolf W. Hendriks, *California Vehicle Noise Emission Levels*, (Sacramento, California: California Department of Transportation, January 1987), NTIS, FHWA/CA/TL-87/03.

6 Ibid.

Roadway Segment	Existing (2005) CNEL in dB(A)
Balboa Blvd. S/O Chatsworth St.	65.9
Chatsworth St. E/O Balboa Blvd.	62.6
Reseda Blvd. S/O Devonshire St	66.9
Lindley Ave. S/O Devonshire St	58.8
Devonshire St. W/O Reseda Blvd.	66.6
Devonshire St. E/O Reseda Blvd.	66.5
Devonshire St. E/O Lindley Ave.	66.5
Zelzah Ave. S/O Devonshire St.	63.0
Devonshire St. E/O Zelzah Ave.	66.5
Balboa Blvd. S/O Devonshire St.	65.7
Devonshire St. E/O Balboa Blvd.	66.8
Woodley Ave. N/O Devonshire St	63.0
Woodley Ave. S/O Devonshire St	60.6
Devonshire St. E/O Woodley Ave.	67.1
405 SB Ramps N/O Devonshire St	82.9
405 NB Ramps N/O Devonshire St	82.9
405 NB Ramps S/O Devonshire St	83.0
Devonshire St. E/O 405 NB Ramps	66.8
Tampa Ave. N/O Lassen St.	63.3
Tampa Ave. S/O Lassen St.	67.3
Wilbur Ave. N/O Lassen St.	63.9
Wilbur Ave. S/O Lassen St.	63.8
Reseda Blvd. S/O Lassen St.	63.2
Lindley Ave. S/O Lassen St.	57.4
Zelzah Ave. S/O Lassen St.	64.0
Balboa Blvd. S/O Lassen St.	65.3
Lassen St. W/O Tampa Ave.	64.5
Lassen St. E/O Tampa Ave.	64.9
Lassen St. E/O Wilbur Ave.	64.8
Lassen St. E/O Reseda Blvd.	64.8
Lassen St. E/O Lindley Ave.	65.7
Lassen St. E/O Zelzah Ave.	64.9
Lassen St. E/O Balboa Blvd.	61.4
Tampa Ave. S/O Plummer St.	67.1
Wilbur Ave. S/O Plummer St.	62.2
Reseda Blvd. S/O Plummer St.	65.6
Zelzah Ave. S/O Plummer St.	63.9
Balboa Blvd. S/O Plummer St.	65.4
Plummer St. W/O Tampa Ave.	65.7
Plummer St. E/O Tampa Ave.	63.5
Plummer St. E/O Wilbur Ave.	62.2
Plummer St. E/O Reseda Blvd.	60.4
Plummer St. E/O Zelzah Ave.	60.2
Plummer St. E/O White Oak Ave.	61.6
Plummer St. E/O Balboa Blvd.	62.3
Reseda Blvd. S/O Prairie St.	65.8
Prairie St. E/O Reseda Blvd.	49.9
Zelzah Ave. S/O Prairie St.	63.2
Prairie St. E/O Zelzah Ave.	44.5
Prairie St. E/O White Oak Ave.	43.6
Tampa Ave. S/O Nordhoff St.	67.6
Reseda Ave. S/O Nordhoff St.	65.4
Darby Ave. N/O Nordhoff St.	52.0
W. University Dr. N/O Nordhoff St.	50.1
Etiwanda Ave. S/O Nordhoff St.	45.8
E. University Dr. N/O Nordhoff St.	47.8
Lindley Ave. S/O Nordhoff St.	61.6
Zelzah Ave. S/O Nordhoff St.	54.4
Balboa Blvd. S/O Nordhoff St.	65.7
Woodley Ave. S/O Nordhoff St.	64.4

Roadway Segment	Existing (2005) CNEL in dB(A)
Nordhoff St. W/O Tampa Ave.	66.4
Nordhoff St. E/O Tampa Ave.	67.6
Nordhoff St. E/O Wilbur Ave.	67.3
Nordhoff St. E/O Reseda Blvd.	67.9
Nordhoff St. E/O Darby Ave.	67.9
Nordhoff St. E/O Etiwanda Ave.	67.9
Nordhoff St. E/O Lindley Ave.	68.3
Nordhoff St. E/O Zelzah Ave.	67.4
Nordhoff St. E/O White Oak Ave.	67.2
Nordhoff St. E/O Balboa Blvd.	67.6
Nordhoff St. E/O Woodley Ave.	67.6
405 SB Ramps S/O Nordhoff St.	83.8
405 NB Ramps S/O Nordhoff St.	83.8
Reseda Blvd. S/O Parthenia St.	65.2
Lindley Ave. S/O Parthenia St.	62.6
Reseda Blvd. S/O Roscoe Blvd.	64.4
Lindley Ave. S/O Roscoe Blvd.	61.8
Parthenia St. E/O Lindley Ave.	66.8
Roscoe Blvd. E/O Reseda Blvd.	65.7
Roscoe Blvd. E/O Lindley Ave.	65.7

Source: Impact Sciences, Inc. Model results are contained in ***Appendix C****.*
Note: Noise level estimates are at 100 feet from the roadway centerline.

Point (or Stationary) Sources of Noise

The campus occupies a predominantly suburban setting within the City of Northridge, and the ambient noise environment is typical of such a setting. Stationary sources of noise present on campus generally include campus academic and administrative facility operations, including the operation of rooftop-mounted building heating, ventilation, and air conditioning equipment; periodic athletic events; parking activity (e.g., doors slamming or car alarms); and the operation of routine landscape maintenance equipment. Activities occurring at or near the campus periphery, such as vehicle use of parking facilities and landscape maintenance, have the highest potential to be audible at off-site locations.

Off-site stationary noise sources in the study area include activities associated with the residential and commercial land uses surrounding the campus, such as people talking, doors closing, landscape equipment operation, stereos, domestic animals, tires squealing, and truck deliveries. In general, such noise sources do not generate adverse noise levels that would conflict with existing noise regulations.

Sensitive Receptors

Certain land uses are considered more sensitive to elevated noise levels than others, due to the amount of noise exposure and types of activities typically involved. The City of Los Angeles Draft *CEQA Thresholds Guide* states that residences, transit lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks are generally more sensitive to noise

than are commercial and industrial land uses.[7] Sensitive receptors in the area surrounding the campus include single- and multi-family residences directly adjacent to the campus along Darby Avenue, Halsted Street, Devonshire Street, Zelzah Avenue, Nordhoff Street, and Lindley Avenue directly across from the campus.

3.4.4 REGULATORY SETTING

State of California

The State of California, Department of Health Services, Environmental Health Division, has published recommended guidelines for land use compatibility with regard to community noise exposure. These guidelines rate land use compatibility in terms of the following: normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. **Figure 3.4-3, Land Use Compatibility Guidelines**, identifies exterior noise levels recommended by the Department of Health Services for various land use categories. Each jurisdiction is required to consider these guidelines when developing its General Plan Noise Element and when determining acceptable noise levels within its community. These guidelines are representative of various land uses that include residential, commercial/mixed-use, industrial, and public facilities.

The California Commission of Housing and Community Development officially adopted noise standards in 1974. In 1988, the Building Standards Commission approved revisions to the standards (Title 24, Part 2, California Code of Regulations). As revised, Title 24 establishes an interior noise standard of 45 dB(A) CNEL for residential space.[8]

City of Los Angeles Noise Ordinance

The Los Angeles Municipal Code (LAMC), Section 41.40 and Chapter XI, Articles 1 through 6, establishes regulations regarding allowable increases in noise levels in terms of established noise criteria.

The City of Los Angeles Noise Regulation establishes acceptable ambient sound levels to regulate intrusive noises (e.g., stationary mechanical equipment and vehicles other than those traveling on public streets) within specific land use zones. In accordance with the Noise Regulation limits for residential zones, a noise level increase of 5 dB(A) over the existing average ambient noise level at an adjacent property line is considered a noise violation. For purposes of determining whether or not a violation of the noise regulation has occurred, the sound level measurements of a loud noise with a duration of five minutes or less during a one-hour period is reduced by 5 dB(A) to account for people's increased

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7 City of Los Angeles Draft *CEQA Thresholds Guide*, May 14, 1998, p. I.1-2.

8 Cowan, James P. *Handbook of Environmental Acoustics*, pp. 246–247, 1994.

tolerance for short-duration noise events. In cases where the actual ambient noise level is not known, presumed daytime (7:00 AM to 10:00 PM) minimum ambient noise for properties zoned commercial is considered to be 60 dB(A), while nighttime (10:00 PM to 7:00 AM) ambient noise is considered to be 55dB(A).[9]

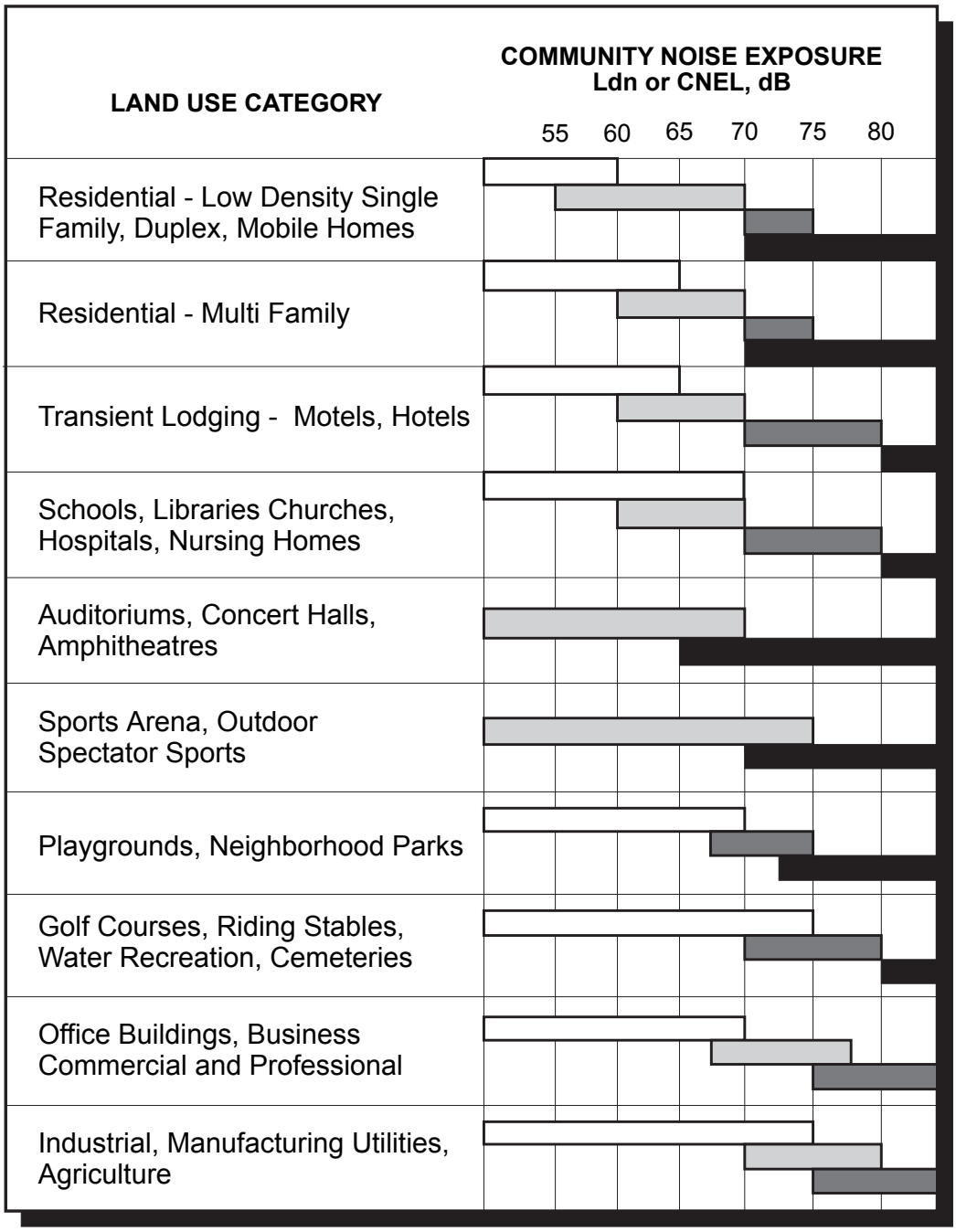
Construction noise sources cannot be directly correlated to a 24-hour community noise standard because this type of noise typically occurs only during certain hours of the day, and construction source noise levels vary greatly over time. Construction activities are also treated separately in many community noise ordinances because they do not represent a chronic, permanent noise source. To abate the potential nuisance from construction noise, the City of Los Angeles Noise Ordinance and Public Welfare Regulations (Chapter IV of the Los Angeles Municipal Code) regulate construction noise in several ways. The standards defined by the City for construction activity noise control include the following:

- Section 41.40(a) limits hours of construction activities to 7 AM to 9 PM if such activities may disturb the sleep of any persons in the vicinity. Construction activities include equipment operations, as well as equipment repair and servicing, and also the delivery of any construction materials (Ordinance No. 158 587).

- Section 41.40(c) further limits hours of allowable operations from 8 AM to 6 PM on Saturday or any holiday (Ordinance No. 166 170; effective 9/29/90). Construction work is not permitted on Sundays.

- Additionally, Section 112.05 of the Los Angeles Municipal Code (Ordinance No. 161 564) establishes performance standards for powered equipment or tools. The maximum allowable noise level for operations within 500 feet of any residential zone is 75 dB(A) measured at 50 feet from the noise source. This restriction holds unless compliance is not technically feasible even with the use of noise "mufflers, shields, sound barriers, and/or other noise reduction devices or techniques."

9 Los Angeles Municipal Code, Chapter XI, Article I, Section 111.03.



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 systems or air conditioning 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 reduction features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

SOURCE: California Department of Health, Office of Health Control, Guidelines for the Preparation and Content of Noise Elements of the General Plan, February 1976.

FIGURE **3.4-3**

Land Use Compatibility Guidelines

City of Los Angeles CNEL Guidelines

The State of California, Department of Health Services, Environmental Health Division, has published recommended guidelines for noise and land use compatibility, referred to as the Guidelines. The City of Los Angeles has adopted local guidelines based, in part, on the State Department of Health Services' noise compatibility guidelines. These guidelines, contained in the City of Los Angeles Draft *CEQA Thresholds Guide*, use CNEL noise categories. CNEL guidelines for specific land uses are classified into four categories: (1) "normally acceptable,"(2) "conditionally acceptable," (3) "normally unacceptable;" and (4) "clearly unacceptable." As shown in **Table 3.4-3**, below, a CNEL value of 60 dB(A) is the upper limit of what is considered a "normally acceptable" noise environment for single-family residential uses, although a CNEL as high as 70 dB(A) is considered "conditionally acceptable." For a less sensitive auditorium use, there is no threshold for "normally acceptable," although a CNEL as high as 70 dB(A) is considered "conditionally acceptable."

Table 3.4-3
City of Los Angeles Land Use Compatibility for Community Noise

	dB(A) CNEL			
Land Use	**Clearly Acceptable**	**Normally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Single-Family, Duplex, Mobile Homes	50–60	55–70	70–75	70+
Multi-Family Homes	50–65	60–70	70–75	70+
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	80+
Transient Lodging – Motels, Hotels	50–65	60–70	70–80	80+
Auditoriums, Concert Halls, Amphitheaters	--	50–70	--	65+
Sports Arena, Outdoor Spectator Sports,	--	50–75	--	70+
Playgrounds, Neighborhood Parks	50–70	--	65–75	72+
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	--	70–80	80+
Office Buildings – Personal, Business, and Professional Commercial	50–70	67–77	75+	--
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	75+	--

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 systems or air conditioning will normally suffice.*
Normally Unacceptable: *New construction or development should 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: City of Los Angeles Draft CEQA Thresholds Guide, *1998.*

3.4.5 SIGNIFICANCE CRITERIA

Off-Site Noise Thresholds

Off-site noise thresholds consider both the Noise Compatibility Criteria and community responses to changes in noise levels. The following thresholds of significance were developed for this noise impact analysis based on information contained in the City of Los Angeles Draft *CEQA Thresholds Guide* and plans and policies identified previously in this EIR section, and also take into account predicted community responses to noise level changes. These thresholds apply to both off-site project and cumulative impacts assessed in this section.

Project Construction

The proposed Master Plan would result in significant off-campus noise impacts from construction if any of the following situations occurred:

NOISE-1: Construction activities lasting more than a day would exceed existing ambient exterior noise levels by 10 dB(A) or more at a noise sensitive use;

NOISE-2: Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dB(A) or more at a noise sensitive use; or

NOISE-3: Construction activities would exceed the ambient noise level by 5 dB(A) at a noise sensitive use between the hours of 9:00 PM and 7:00 AM, Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at anytime on Sunday.[10]

Project Operation

NOISE-4: Project operations would result in a significant impact on noise levels if the project would cause the ambient noise level measured at the property line of affected land uses to increase by 3 dB(A) in CNEL to, or within, the "normally unacceptable" or "clearly unacceptable" category as identified in **Table 3.4-3, City of Los Angeles Land Use Compatibility for Community Noise**, or by 5 dB(A) within the "normally acceptable" or "conditionally acceptable" category;[11] or

NOISE-5: Project-related operational (i.e., non-roadway) noise sources increase off-campus ambient noise levels by 5 dB(A), thus causing a violation of the City of Los Angeles Noise Ordinance.

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10 City of Los Angeles Draft *CEQA Thresholds Guide*, May 14, 1998, p. I.1-3.

11 Ibid., pp. I.2-3–I.2-4.

On-Site Noise Thresholds

The CSUN campus is state property and, therefore, under state jurisdiction. Accordingly, the following thresholds of significance were developed for this noise impact analysis based on both the exterior noise levels recommended by the Department of Health Services and the interior noise standard of 45 dB(A) CNEL for residential space under Title 24. These thresholds apply to both on-site project and cumulative impacts assessed in this section.

The proposed Master Plan would result in significant on-campus noise impacts from construction or operation if any of the following situations occurred:

NOISE-6: Project construction or operation activities would exceed "conditionally acceptable" exterior noise levels recommended by the Department of Health Services for various land use categories; 65 dB(A) maximum noise threshold for multi-family residential uses and 70 dB(A) maximum noise threshold for all other on-site school uses; [12]

NOISE-7: Project construction or operation activities would exceed interior noise level standard of 45 dB(A) CNEL for residential space.[13]

3.4.6 ENVIRONMENTAL IMPACTS

Program-Level Analysis

Off-Site Construction Impacts

NOISE-1: Construction activities lasting more than a day would exceed existing ambient exterior noise levels by 10 dB(A) or more at a noise sensitive use;

NOISE-2: Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dB(A) or more at a noise sensitive use; or

NOISE-3: Construction activities would exceed the ambient noise level by 5 dB(A) at a noise sensitive use between the hours of 9:00 PM and 7:00 AM, Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at anytime on Sunday.[14]

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12 Given that the proposed Faculty/Staff Housing is not low density the multi-family residential threshold was used in this analysis.

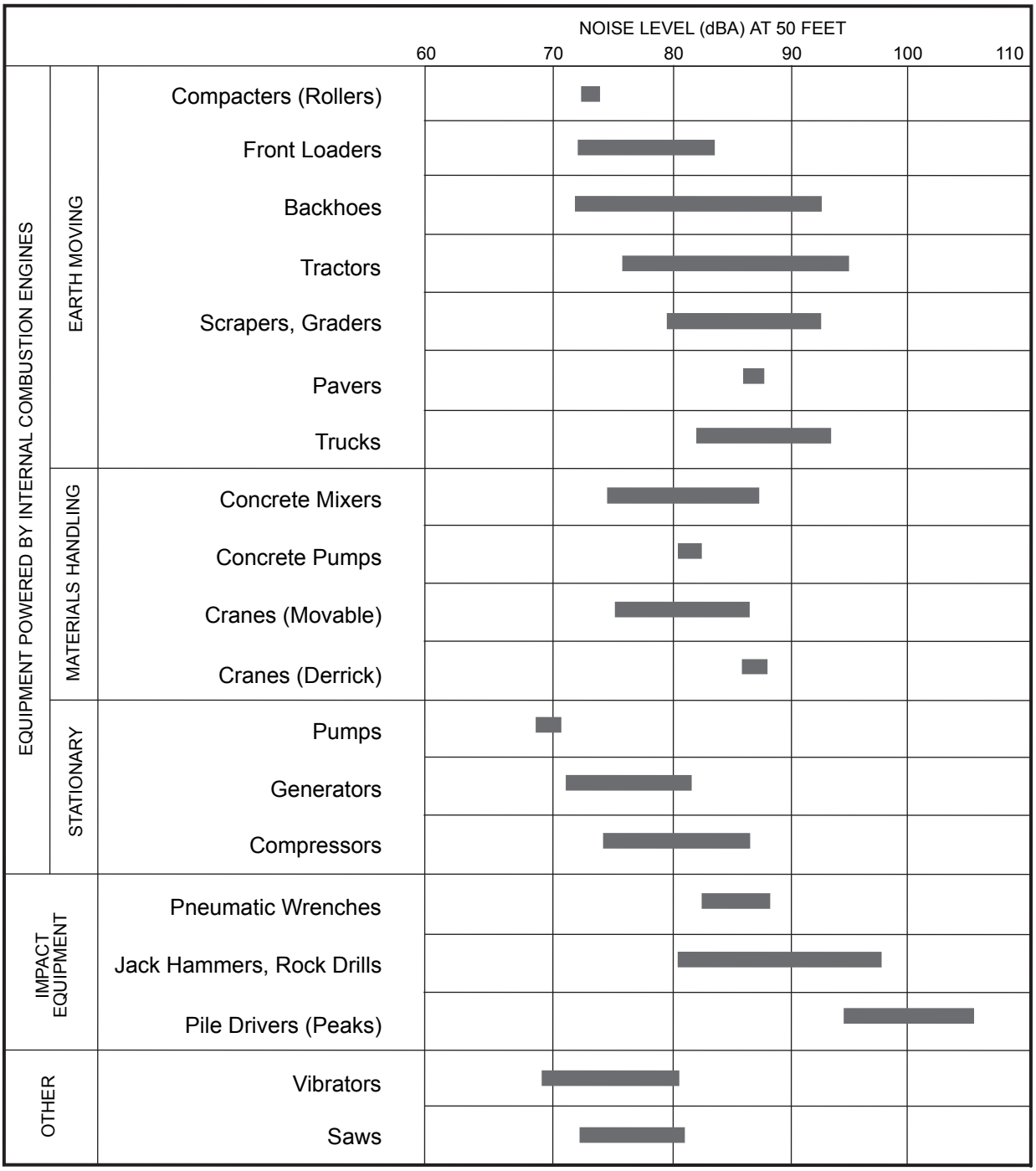
13 Cowan, James P. *Handbook of Environmental Acoustics*, pp. 246–247, 1994.

14 City of Los Angeles Draft *CEQA Thresholds Guide*, May 14, 1998, p. I.1-3.

Implementation of the proposed Master Plan would involve site demolition, clearance and grading; installation of utilities; roadway construction; construction of proposed new buildings and facilities; and post-construction cleanup. These activities typically involve the use of heavy equipment such as excavators, scrapers, motor-graders, compactors, water trucks, tractors, loaders, pavers, and concrete mixers. Trucks would be used to deliver equipment and building materials, and to haul waste materials from the site. Smaller equipment, such as jackhammers, pneumatic tools, saws, and hammers, would also be used periodically throughout the site during the construction phase. This equipment would generate both steady-state and episodic noise that would be heard both on and off the project site. The amount of equipment and number of construction workers on the site would vary with each phase of construction depending on the intensity of the action.

The U.S. Environmental Protection Agency has compiled data on the noise-generating characteristics of specific types of construction equipment. This data is presented in **Figure 3.4-4, Noise Levels of Typical Construction Equipment**. As shown, noise levels generated by heavy equipment can range from approximately 68 dB(A) to greater than 100 dB(A) when measured at 50 feet from the noise source. However, these stationary source noise levels would, as discussed previously, diminish rapidly with distance from the construction site at a rate of approximately 6.0 to 7.5 dB(A) per doubling of distance. Nonetheless, any locations that would have an uninterrupted line-of-sight to construction noise sources could be exposed to some level of construction noise. It should be noted, however, that each piece of construction equipment would not be used continuously; the loudest piece of equipment operating at any one time would represent the ambient noise at that time as it would drown out or partially mask other, lesser noise sources.

The closest sensitive receptors in the vicinity of campus are single-family and multi-family residences located along Halsted Street, Darby Avenue, and Lindley Avenue directly across from campus. Residential uses are typically located approximately 60 feet from the campus boundary. Other residential uses near the project site are located along Devonshire Street, Zelzah Avenue, and Nordhoff Street, at a minimum distance of 100 feet from the campus boundary. Noise levels generated during the development of individual project components would depend upon distance between the construction activity and the affected uses, as well as the noise attenuation effects of any intervening structures built during earlier phases of the project.



Note: Based on limited available data samples.

SOURCE: United States Environmental Protection Agency, 1971, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," NTID 300-1.

FIGURE **3.4-4**

Noise Levels of Typical Construction Equipment

Detailed information on project-related construction activities is not available at this time, and without detailed site plans or construction timelines, it is not possible to accurately predict on- and off-site noise levels during the development of each site. Therefore, this construction noise impact analysis assumes the worst-case scenario by assuming that the loudest construction equipment would operate at the property lines. Because loud construction equipment, such as tractors, backhoes, trucks, and jackhammers, would be utilized during project construction, noise levels over 95 dB(A) are anticipated within 50 feet of their operation.

As indicated in **Table 3.4-2**, roadways surrounding the project site are currently experiencing noise levels between 49.9 dB(A) and 68.1 dB(A). Noise levels generated during implementation of Master Plan components would temporarily affect occupants of the residences along the boundary of the site. As the closest sensitive receptors in these areas are located approximately 60 feet from the project site, temporary and periodic noise levels of up to 93.4 dB(A) are anticipated at these locations and 89.0 dB(A) at 100 feet.[15] In reality, the equipment used on the project site would only operate at the property line for short periods, while the majority of the work would occur within the interior of each site. Construction activities would be restricted on a daily basis in accordance with the City's Zoning Ordinance standards that limit the hours of construction. Given the common use of construction equipment, the finite period associated with grading and construction both off site and in various portions of the site itself, temporary noise impacts associated with these activities are considered a short-term nuisance. Nonetheless, potential construction-related noise impacts are expected to exceed existing ambient exterior noise levels by more than 5 dB(A) at off-site noise-sensitive use, as allowed by the Municipal Code, and noise impacts would, therefore, be considered significant.

In addition to equipment noise, the movement of equipment and workers onto individual project sites during construction would generate temporary traffic noise along access routes to the project areas. The major pieces of heavy equipment would be moved into the development areas once for each construction project and, thereafter, would be staged on campus for the duration of construction, and thus would have a less than significant short-term effect on traffic noise levels. Although the daily commute of construction workers is expected to cause temporary increases in noise levels along project roadways, this traffic would not be a substantial percentage of daily volumes in the area and thus would not increase levels by more than 3 dB(A). Therefore, temporary construction-related traffic noise level increases are considered to be less than significant.

On-Campus Construction Impacts

NOISE-6: Project construction or operation activities would exceed "conditionally acceptable" exterior noise levels recommended by the Department of Health Services for various land use

15 Based on an attenuation rate of 6.0 dB(A) per doubling distance at a reference distance of 100 feet.

categories; 65 dB(A) maximum noise threshold for multi-family residential uses and 70 dB(A) maximum noise threshold for all other on-site school uses.[16]

NOISE-7: Project construction or operation activities would exceed interior noise level standard of 45 dB(A) CNEL for residential space.[17]

The same construction conditions discussed under Off-Site Construction Impacts, Program-Level Analysis, would apply to the on-site impact analysis. As stated above, the loud construction equipment, such as tractors, backhoes, trucks, and jackhammers, would be utilized during project construction, and result in noise levels over 95 dB(A) within 50 feet of their operation. As indicated on **Figure 3.4-3**, the maximum noise level under the "normally acceptable" category for multi-family residential (i.e., dormitories, faculty/staff housing) is 65 dB(A) and 70 dB(A) for school uses. Given an attenuation rate of approximately 6.0 to 7.5 dB(A) per doubling of distance for a stationary source, any campus residential building within 1,581 feet and with an uninterrupted line-of-sight to construction noise sources could be exposed to noise levels above the 65 dB(A) maximum threshold for multi-family residential uses; and all other campus buildings within 889 feet and with an uninterrupted line-of-sight to construction noise sources could be exposed to noise levels above the 70 dB(A) maximum threshold for all other school uses. It should be noted that a single row of houses, or in this case buildings, between the receptor and the noise source reduces the noise level by about 5 dB(A) and 1.5 dB(A) for each additional row of buildings.[18] Nonetheless**,** potential construction-related noise impacts are expected to exceed "normally acceptable" exterior noise levels for multi-family residential and schools uses, as allowed by the Department of Health Services, and construction noise impacts would, therefore, be considered significant.

As shown in **Table 3.4-1**, typical retail buildings in California have an exterior-to-interior noise attenuation level of between 17 to 25 dB(A) depending on whether windows are open or closed. Therefore, any exterior noise level above 62 dB(A) at an on-campus residential use would result in an interior noise level above the 45 dB(A) CNEL maximum interior threshold utilized by the Department of Health Services. Given an attenuation rate of approximately 6.0 to 7.5 dB(A) per doubling of distance for a stationary source, any campus residential building within 2,233 feet and with an uninterrupted line-of-sight to construction noise sources could be exposed to noise levels above the 45 dB(A) CNEL maximum interior threshold for residential uses. As stated above, a single row of houses, or in this case buildings, between the receptor and the noise source reduces the noise level by about 5 dB(A) and 1.5 dB(A) for each

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16 Given that the proposed Faculty/Staff Housing is not low density the multi-family residential threshold was used in this analysis.

17 Cowan, James P. *Handbook of Environmental Acoustics*, pp. 246–247, 1994.

18 T. M. Barry and J. A. Reagan, U.S. Department of Transportation, Federal Highway Administration, Office of Research, Office of Environmental Policy, *FHWA Highway Traffic Noise Prediction Model*, (Washington D.C., December 1978), NTIS, FHWA-RD-77-108, p. 33.

additional row of buildings.[19] Nonetheless, potential construction-related noise impacts are expected to exceed interior noise levels for on-site residential uses, as allowed by the Department of Health Services, and construction noise impacts would, therefore, be considered significant.

Construction noise impacts would remain significant after implementation of the above mitigation measures, because of the proximity of on-site sensitive receptors to the proposed sites of individual project components.

Off-Site Operational Impacts

NOISE-4: The proposed project would result in a significant impact on noise levels from project operation if the project would cause the ambient noise level measured at the property line of affected noise uses to increase by 3 dB(A) in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category as identified in **Table 3.4-3**, or by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category.[20]

NOISE-5: Project-related operational (i.e., non-roadway) noise sources increase ambient noise by 5 dB(A), thus causing a violation of the City Noise Ordinance.

Roadway Noise

As discussed previously, the predominant source of existing noise in the vicinity of the project site and surrounding area is generated by vehicular noise on local roadways. Development of the project would increase the traffic volumes along local roadways. To evaluate the potential permanent impact associated with increased vehicle trips generated by the proposed project, noise prediction modeling utilizing the FHWA noise prediction model was conducted for the same roadway segments that were previously identified in **Table 3.4-2**. Roadway geometrics and traffic volumes for the anticipated segments were obtained from the traffic study prepared for the proposed project. **Table 3.4-4, Future Year (2035) Weekday Modeled Roadway Noise Levels**, identifies the future weekday roadway noise levels in the year 2035 for both with and without project traffic volumes. The year 2035 without project traffic condition is used as the ambient roadway noise level to determine the project-related noise increase at the time of project buildout.

As is indicated in **Table 3.4-4**, implementation of the proposed Master Plan would result in permanent ambient noise level increases ranging from 0.0 to 3.7 dB(A) on surrounding roadways during the weekday. The largest project-related increase of 3.7 dB(A) would occur on Prairie Street east of White

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19 Ibid.

20 Ibid., pp. I.2-3–I.2-4.

Oak Avenue. The increase is directly attributable to the fact that without project weekday traffic conditions, the roadway segment is forecast to have 1,389 daily trips. The project would add an additional 1,522 trips resulting in a total of 2,911 daily trips. However, noise levels in the year 2035 for both with and without project traffic volumes are within the "clearly acceptable" category, and the project would not result in an increase in CNEL by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category.[21] Therefore, impacts would be less than significant.

Table 3.4-4
Future Year (2035) Weekday Modeled Roadway Noise Levels

Roadway Segment	Year 2035 Cumulative Roadway Noise Level	Year 2035 Cumulative Plus Project Roadway Noise Level	Project-Related Increase	Significant Project Impact
118 WB Ramps S/O Rinaldi St.	84.2	84.2	0.0	No
Rinaldi St. E/O 118 WB Ramps	68.3	68.4	0.1	No
Reseda Blvd. N/O Rinaldi St.	61.5	61.5	0.0	No
Rinaldi St. E/O Reseda Blvd.	66.5	66.6	0.1	No
Reseda Blvd. N/O 118 EB Ramps	66.5	66.5	0.0	No
Reseda Blvd. S/O 118 EB Ramps	68.0	68.0	0.0	No
118 EB Ramps W/O Reseda Blvd.	84.0	84.0	0.0	No
Balboa Blvd. N/O 118 WB Ramps	67.3	67.4	0.1	No
Balboa Blvd. S/O 118 WB Ramps	67.5	67.6	0.1	No
118 WB Ramps E/O Balboa Blvd.	84.5	84.5	0.0	No
Balboa Blvd. N/O 118 EB Ramps	67.5	67.6	0.1	No
Balboa Blvd. S/O 118 EB Ramps	67.3	67.6	0.3	No
118 EB Ramps E/O Balboa Blvd.	84.4	84.5	0.1	No
Reseda Blvd. N/O Chatsworth St.	67.4	67.4	0.0	No
Reseda Blvd. S/O Chatsworth St.	67.6	67.6	0.0	No
Chatsworth St. W/O Reseda Blvd.	63.9	63.9	0.0	No
Chatsworth St. E/O Reseda Blvd.	64.6	64.7	0.1	No
Zelzah Ave. N/O Chatsworth St.	62.2	62.5	0.3	No
Zelzah Ave. S/O Chatsworth St.	63.7	64.0	0.3	No
Chatsworth St. E/O Zelzah Ave.	64.6	64.5	0.1	No
Balboa Blvd. S/O Chatsworth St.	66.7	67.0	0.3	No
Chatsworth St. E/O Balboa Blvd.	63.4	63.5	0.1	No
Reseda Blvd. S/O Devonshire St	67.7	67.8	0.1	No
Lindley Ave. S/O Devonshire St	59.6	59.9	0.3	No
Devonshire St. W/O Reseda Blvd.	67.4	67.5	0.1	No
Devonshire St. E/O Reseda Blvd.	67.3	67.5	0.2	No
Devonshire St. E/O Lindley Ave.	67.3	67.6	0.3	No
Zelzah Ave. S/O Devonshire St.	63.7	64.4	0.7	No
Devonshire St. E/O Zelzah Ave.	67.3	67.5	0.2	No
Balboa Blvd. S/O Devonshire St.	66.4	66.6	0.2	No
Devonshire St. E/O Balboa Blvd.	67.5	67.7	0.2	No
Woodley Ave. N/O Devonshire St	63.7	63.7	0.0	No
Woodley Ave. S/O Devonshire St	61.3	61.4	0.1	No
Devonshire St. E/O Woodley Ave.	67.8	68.0	0.2	No
405 SB Ramps N/O Devonshire St	83.7	83.7	0.0	No
405 NB Ramps N/O Devonshire St	83.6	83.6	0.0	No
405 NB Ramps S/O Devonshire St	83.7	83.7	0.0	No
Devonshire St. E/O 405 NB Ramps	67.5	67.5	0.0	No
Tampa Ave. N/O Lassen St.	64.2	64.2	0.0	No

21 Ibid.

Roadway Segment	Year 2035 Cumulative Roadway Noise Level	Year 2035 Cumulative Plus Project Roadway Noise Level	Project-Related Increase	Significant Project Impact
Tampa Ave. S/O Lassen St.	68.3	68.3	0.0	No
Wilbur Ave. N/O Lassen St.	64.7	64.7	0.0	No
Wilbur Ave. S/O Lassen St.	64.5	64.5	0.0	No
Reseda Blvd. S/O Lassen St.	64.0	64.1	0.1	No
Lindley Ave. S/O Lassen St.	58.2	58.2	0.0	No
Zelzah Ave. S/O Lassen St.	64.7	65.2	0.5	No
Balboa Blvd. S/O Lassen St.	66.0	66.3	0.3	No
Lassen St. W/O Tampa Ave.	65.2	65.2	0.0	No
Lassen St. E/O Tampa Ave.	65.6	65.7	0.1	No
Lassen St. E/O Wilbur Ave.	65.6	65.7	0.1	No
Lassen St. E/O Reseda Blvd.	65.6	65.7	0.1	No
Lassen St. E/O Lindley Ave.	66.4	66.5	0.1	No
Lassen St. E/O Zelzah Ave.	65.7	65.8	0.1	No
Lassen St. E/O Balboa Blvd.	62.1	62.2	0.1	No
Tampa Ave. S/O Plummer St.	68.3	68.3	0.0	No
Wilbur Ave. S/O Plummer St.	62.9	62.9	0.0	No
Reseda Blvd. S/O Plummer St.	66.4	66.5	0.1	No
Zelzah Ave. S/O Plummer St.	64.6	64.9	0.0	No
Balboa Blvd. S/O Plummer St.	66.1	66.3	0.2	No
Plummer St. W/O Tampa Ave.	66.6	66.7	0.1	No
Plummer St. E/O Tampa Ave.	64.3	64.5	0.2	No
Plummer St. E/O Wilbur Ave.	63.0	63.3	0.3	No
Plummer St. E/O Reseda Blvd.	61.1	61.7	0.6	No
Plummer St. E/O Zelzah Ave.	60.9	62.2	1.3	No
Plummer St. E/O White Oak Ave.	62.3	63.3	1.0	No
Plummer St. E/O Balboa Blvd.	63.0	63.6	0.6	No
Reseda Blvd. S/O Prairie St.	66.7	66.8	0.1	No
Prairie St. E/O Reseda Blvd.	50.6	50.9	0.3	No
Zelzah Ave. S/O Prairie St.	63.9	64.1	0.2	No
Prairie St. E/O Zelzah Ave.	45.2	48.5	3.3	No
Prairie St. E/O White Oak Ave.	44.3	48.0	3.7	No
Tampa Ave. S/O Nordhoff St.	68.7	68.7	0.0	No
Reseda Ave. S/O Nordhoff St.	66.3	66.4	0.1	No
Darby Ave. N/O Nordhoff St.	52.7	52.7	0.0	No
W. University Dr. N/O Nordhoff St.	50.8	51.8	1.0	No
Etiwanda Ave. S/O Nordhoff St.	46.6	48.3	1.7	No
E. University Dr. N/O Nordhoff St.	48.6	48.8	0.2	No
Lindley Ave. S/O Nordhoff St.	62.4	62.5	0.1	No
Zelzah Ave. S/O Nordhoff St.	55.2	55.2	0.0	No
Balboa Blvd. S/O Nordhoff St.	66.5	66.5	0.0	No
Woodley Ave. S/O Nordhoff St.	65.1	65.1	0.0	No
Nordhoff St. W/O Tampa Ave.	67.6	67.6	0.0	No
Nordhoff St. E/O Tampa Ave.	68.5	68.5	0.0	No
Nordhoff St. E/O Wilbur Ave.	68.2	68.2	0.0	No
Nordhoff St. E/O Reseda Blvd.	68.7	68.7	0.0	No
Nordhoff St. E/O Darby Ave.	68.7	68.7	0.0	No
Nordhoff St. E/O Etiwanda Ave.	68.7	68.8	0.1	No
Nordhoff St. E/O Lindley Ave.	69.1	69.1	0.0	No
Nordhoff St. E/O Zelzah Ave.	68.2	68.3	0.1	No
Nordhoff St. E/O White Oak Ave.	68.0	68.1	0.1	No
Nordhoff St. E/O Balboa Blvd.	68.4	68.5	0.1	No
Nordhoff St. E/O Woodley Ave.	68.4	68.5	0.1	No
405 SB Ramps S/O Nordhoff St.	84.5	84.5	0.0	No
405 NB Ramps S/O Nordhoff St.	84.5	84.5	0.0	No
Reseda Blvd. S/O Parthenia St.	66.1	66.1	0.0	No
Lindley Ave. S/O Parthenia St.	63.3	63.5	0.2	No
Reseda Blvd. S/O Roscoe Blvd.	65.3	65.3	0.0	No

Roadway Segment	Year 2035 Cumulative Roadway Noise Level	Year 2035 Cumulative Plus Project Roadway Noise Level	Project-Related Increase	Significant Project Impact
Lindley Ave. S/O Roscoe Blvd.	62.5	62.6	0.1	No
Parthenia St. E/O Lindley Ave.	67.8	67.8	0.0	No
Roscoe Blvd. E/O Reseda Blvd.	66.6	66.6	0.0	No
Roscoe Blvd. E/O Lindley Ave.	66.5	66.5	0.0	No

Source: Impact Sciences, Inc. Model results are contained in ***Appendix C****.*
Note: Noise level estimates are at 100 feet from the roadway centerline.

In addition to the roadway mentioned above, a project-related increase of 3.3 dB(A) would occur on Prairie Street east of Zelzah Avenue. The increase is directly attributable to the fact that without project weekday traffic conditions, the roadway segment is forecast to have 1,122 daily trips. The project would add an additional 1,511 trips resulting in a total of 2,633 daily trips. However, noise levels in the year 2035 for both with and without project traffic volumes are within the "clearly acceptable" category, and the project would not result in an increase in CNEL by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category.[22] Therefore, impacts are less than significant. As a result, none of the roadway segments would result in an increase in CNEL of 3 dB(A) to or within the "normally unacceptable" or "clearly unacceptable" category as identified in **Table 3.4-4**, or by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category.[23] Impacts would, therefore, be less than significant.

Point-Source Noise

Parking Structures

Development of the proposed project would introduce parking structures and parking lots on the campus, including along the periphery of campus. The parking structures would be a maximum of six levels aboveground and would be located adjacent to proposed academic buildings and faculty/student housing on campus and existing off-campus residential uses as shown on **Figure 2.0-4**. In general, noise associated with the vehicle use of parking structures is not of sufficient volume to exceed community standards based on the time-weighted CNEL scale. Parking structures can be a source of annoyance due to automobile engine start-ups and acceleration, and the occasional accidental activation of car alarms. The closest sensitive receptors to proposed parking structures would be proposed residences and

22 Ibid.
23 City of Los Angeles Draft *CEQA Thresholds Guide*, May 14, 1998, pp. I.2-3–I.2-4.

academic buildings on campus. Parking structures can generate L_{eq} noise levels of between 49 dB(A) L_{eq} (tire squeals) to 74 dB(A) L_{eq} (car alarms) at 50 feet.[24]

Due to the high level of traffic noise along streets surrounding the campus, normal daytime parking structure L_{eq} noise would not likely be audible due to the masking of noise by traffic on nearby roadways. However, single noise events could be an annoyance to residents. The nearest residences to the campus boundary are approximately 60 feet away, and would be farther from on-campus buildings and parking facilities because of setbacks associated with those uses. Because of attenuation associated with the distance separation, the predicted noise level increase caused by activity within the parking structure would not cause a 5 dB(A) increase over the ambient noise level at the nearest sensitive receptor. As a result, impacts would be less than significant.

On-Site Operational Impacts

NOISE-6: Project construction or operation activities would exceed "conditionally acceptable" exterior noise levels recommended by the Department of Health Services for various land use categories; 65 dB(A) maximum noise threshold for multi-family residential uses and 70 dB(A) maximum noise threshold for all other on-site school uses.[25]

NOISE-7: Project construction or operation activities would exceed interior noise level standard of 45 dB(A) CNEL for residential space.[26]

Roadway Noise

As is indicated in **Table 3.4-4**, none of the roadways surrounding or within the campus would exceed 70 dB(A) after implementation of the proposed Master Plan. Therefore, exterior noise levels along the roadways surrounding and within the campus in the year 2035 with project traffic volumes are within the "normally acceptable" category for school uses. Zelzah Avenue south of Lassen Street and Lassen Street east of Lindley Avenue are roadways with noise levels above 65 dB(A), after implementation of the proposed Master Plan, that are adjacent to existing and/or proposed on-site residential uses. In addition, modeled roadway noise levels along Lassen Street east of Lindley Avenue currently exceed the 65 dB(A) maximum threshold under the "normally acceptable" category for multi-family residential, as shown in **Table 3.4-2**. After implementation of the proposed Master Plan, noise levels along Zelzah Avenue south of Lassen Street would be approximately 65.2 dB(A), and noise levels along Lassen Street east of Lindley

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24 M. Harris. *Handbook of Noise Control.* Revised 1989.

25 Given that the proposed Faculty/Staff Housing is not low density the multi-family residential threshold was used in this analysis.

26 Cowan, James P. *Handbook of Environmental Acoustics*, pp. 246–247, 1994.

Avenue would be approximately 66.5 dB(A). As a result, exterior noise levels along the two roadways, in the year 2035 for with project traffic volumes, would be above the "normally acceptable" category for multi-family uses. However, these exterior noise levels would attenuate at a rate of 3 dB(A) per the doubling of distance and by about 5 dB(A) for a single row of building and 1.5 dB(A) for each additional row of buildings.[27] Nonetheless, on-site impacts along these roadways would be significant.

As shown in **Table 3.4-1**, typical retail buildings in California have an exterior-to-interior noise attenuation level of between 17 to 25 dB(A) depending on whether windows are open or closed. Therefore, interior noise levels for on-site residential uses along Zelzah Avenue south of Lassen Street would be approximately 48.2 dB(A) and approximately 49.5 dB(A) for on-site residential uses along Lassen Street east of Lindley Avenue. As a result, interior noise levels along the two roadways, in the year 2035 with project traffic volumes, would be above the 45 dB(A) CNEL maximum interior threshold utilized by the Department of Health Services. However, these interior noise levels would attenuate at a rate of 3 dB(A) per the doubling of distance and by about 5 dB(A) for a single row of building and 1.5 dB(A) for each additional row of buildings.[28] Nonetheless, on-site noise impacts along these roadways would be significant prior to the incorporation of mitigation.

Point-Source Noise

Parking Structures

As previously mentioned, parking structures can generate L_{eq} noise levels of between 49 dB(A) L_{eq} (tire squeals) to 74 dB(A) L_{eq} (car alarms) at 50 feet.[29] Therefore, any school building within 79 feet, and any on-site residential building within 141 feet, with an uninterrupted line-of-sight to a proposed parking structure would experience exterior noise levels above the maximum thresholds under the "normally acceptable" category for multi-family and school uses. However, these exterior noise levels would attenuate at a rate of 6 dB(A) per the doubling of distance and for uses with an interrupted line-of-sight noise would attenuate by about 5 dB(A) for a single row of building and 1.5 dB(A) for each additional row of buildings.[30] Nonetheless for uses within the specified distances, on-site noise impacts associated with parking lot activities would be potentially significant prior to the incorporation of mitigation.

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27 T. M. Barry and J. A. Reagan, U.S. Department of Transportation, Federal Highway Administration, Office of Research, Office of Environmental Policy, *FHWA Highway Traffic Noise Prediction Model*, (Washington D.C., December 1978), NTIS, FHWA-RD-77-108, p. 33.

28 Ibid.

29 M. Harris. *Handbook of Noise Control.* Revised 1989.

30 T. M. Barry and J. A. Reagan, U.S. Department of Transportation, Federal Highway Administration, Office of Research, Office of Environmental Policy, *FHWA Highway Traffic Noise Prediction Model*, (Washington D.C., December 1978), NTIS, FHWA-RD-77-108, p. 33.

Rooftop-Mounted Equipment

Given that typical school and residential buildings in California have a minimum exterior-to-interior noise attenuation level of 17 dB(A), interior noise levels would be approximately 57 dB(A) at 50 feet from a parking structure. Therefore, any on-site residential building within 199 feet and with an uninterrupted line-of-sight to a proposed parking structure would experience interior noise levels above the 45 dB(A) maximum threshold for residential uses.[31] As stated above, these exterior noise levels would attenuate at a rate of 6 dB(A) per the doubling of distance and for uses with an interrupted line-of-sight noise would attenuate by about 5 dB(A) for a single row of building and 1.5 dB(A) for each additional row of buildings.[32] Nonetheless for residential uses within the specified distances, on-site noise impacts associated with parking lot activities would be potentially significant prior to the incorporation of mitigation.

Rooftop-Mounted Equipment

New buildings proposed on campus could introduce a range of stationary noise sources, including electrical and mechanical heating, ventilation, and air conditioning equipment, most of which would be located on rooftops. Typically, rooftop-mounted equipment sources produce noise levels of approximately 56 dB(A) at 50 feet, which is well below the 70 dB(A) and 65 dB(A) maximum exterior noise thresholds under the "normally acceptable" category for on-site school and multi-family uses, respectively. Given that typical school and residential buildings in California have a minimum exterior-to-interior noise attenuation level of 17 dB(A), interior noise levels would be approximately 39 dB(A) at 50 feet from rooftop equipment, which is below the 45 dB(A) maximum interior noise threshold for on-site residential uses. Although these noise levels may be annoying within a quiet environment, the existing ambient noise levels would substantially mask these on-site sources and the height differential between the roof of the project and the nearby receptors, as well as the roof parapet, would attenuate the noise levels associated with rooftop equipment. In addition, ambient noise levels surrounding the project sites were modeled between 47.8 dB(A) and 68.3 dB(A), which is above noise levels generated by rooftop equipment. As a result, interior and exterior noise levels from roof-mounted equipment would be less than significant.

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31 Assuming an attenuation rate of 6 dB(A) per doubling of distance.

32 T. M. Barry and J. A. Reagan, U.S. Department of Transportation, Federal Highway Administration, Office of Research, Office of Environmental Policy, *FHWA Highway Traffic Noise Prediction Model*, (Washington D.C., December 1978), NTIS, FHWA-RD-77-108, p. 33.

Near-Term Project-Level Analysis

Off-Site Construction Impacts

NOISE-1: Construction activities lasting more than a day would exceed existing ambient exterior noise levels by 10 dB(A) or more at a noise sensitive use;

NOISE-2: Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dB(A) or more at a noise sensitive use; or

NOISE-3: Construction activities would exceed the ambient noise level by 5 dB(A) at a noise sensitive use between the hours of 9:00 PM and 7:00 AM, Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at anytime on Sunday.[33]

The University has developed sufficient detail concerning selected specific Master Plan projects to permit evaluation of potential environmental impacts at the project level. Six projects proposed under Master Plan Phase 1, six Master Plan Phase 2 projects, and the Valley Performing Arts Center, originally evaluated at the program level in the 1998 Master Plan, are evaluated at the project level in this EIR.

Given that a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dB(A), construction of projects within the campus would generate lower noise levels at off-site receptors than projects at the campus boundaries. Therefore, the near-term project-level analysis evaluates those projects along the campus boundaries, which would generate the greatest noise levels at off-site receptors.

Detailed information on project-related construction activities is not available at this time, and without detailed site plans or construction timelines, it is not possible to accurately predict on- and off-site noise levels during the development of each site. Therefore, this construction noise impact analysis assumes the worst-case scenario by assuming that the loudest construction equipment would operate at the property lines. Because loud construction equipment, such as tractors, backhoes, trucks, and jackhammers, would be utilized during project construction, noise levels over 95 dB(A) are anticipated within 50 feet of their operation.

Phase I

As indicated in **Table 3.4-2**, the roadway adjacent to the project site for the Transit Center, which is Prairie Street east of Reseda Boulevard, is currently experiencing a noise level of 49.9 dB(A). The

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33 City of Los Angeles Draft *CEQA Thresholds Guide*, May 14, 1998, p. I.1-3.

roadway adjacent to the project site for the Faculty/Staff Housing, which is Lindley Avenue south of Devonshire Street, is currently experiencing a noise level of 58.8 dB(A). The roadway adjacent to the Housing Administration Facility site, which is Lindley Avenue south of Lassen Street, is currently experiencing a noise level of 57.4 dB(A). As the closest sensitive receptors in these areas are located approximately 60 feet from the project sites, temporary and periodic noise levels of up to 93.4 dB(A) are anticipated at these locations.[34]

Phase II

As indicated in **Table 3.4-2**, the roadway adjacent to the project site for the Faculty/Staff Housing, which is Zelzah Avenue south of Devonshire Street, is currently experiencing a noise level of 63.0 dB(A). The roadway adjacent to the project site for the Parking Structure (PS-G6), which is Zelzah Avenue south of Lassen Street, is currently experiencing a noise level of 64.0 dB(A). As the closest sensitive receptors in these areas are located approximately 100 feet from the project sites, temporary and periodic noise levels of up to 89.0 dB(A) are anticipated at these locations.[35]

The Valley Performing Arts Center

The Valley Performing Arts Center is located adjacent to the southern campus boundary along Nordhoff Street. As indicated in **Table 3.4-2**, Nordhoff Street east of Etiwanda Avenue is currently experiencing a noise level of 67.9 dB(A). As the closest sensitive receptors in this area are located approximately 80 feet from the project site, temporary and periodic noise levels of up to 90.9 dB(A) are anticipated at these locations.[36]

In reality, the equipment used on the project site would only operate at the property line for short periods, while the majority of the work would occur within the interior of each site. Construction activities would be restricted on a daily basis in accordance with the City's Zoning Ordinance standards that limit the hours of construction. Given the common use of construction equipment, the finite period associated with grading and construction both off-site and in various portions of the site itself, temporary noise impacts associated with these project sites are considered a short-term nuisance. Nonetheless, potential construction-related noise impacts are expected to exceed existing ambient exterior noise levels by more than 5 dB(A) at off-site noise-sensitive uses, as allowed by the Municipal Code, and individual project noise impacts would, therefore, be considered significant.

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34 Ibid.
35 Ibid.
36 Based on an attenuation rate of 6.0 dB(A) per doubling distance at a reference distance of 80 feet.

In addition to equipment noise, the movement of equipment and workers onto the performing arts center project site during construction would generate temporary traffic noise along access routes to the project area. The major pieces of heavy equipment would be moved into the project site once for each construction project and, thereafter, would be staged on campus for the duration of construction, and thus would have a less than significant short-term effect on traffic noise levels. Although the daily commute of construction workers is expected to cause temporary increases in noise levels along project roadways, this traffic would not be a substantial percentage of daily volumes in the area and thus would not increase levels by more than 3 dB(A). Therefore, temporary construction-related traffic noise level increases are considered to be less than significant.

On-Campus Construction Impacts

NOISE-6: Project construction or operation activities would exceed "conditionally acceptable" exterior noise levels recommended by the Department of Health Services for various land use categories; 65 dB(A) maximum noise threshold for multi-family residential uses and 70 dB(A) maximum noise threshold for all other on-site school uses.[37]

NOISE-7: Project construction or operation activities would exceed interior noise level standard of 45 dB(A) CNEL for residential space.[38]

Each near-term project would involve site demolition, clearance and grading; installation of utilities; roadway construction; construction of proposed new buildings and facilities; and post-construction cleanup. These activities typically involve the use of heavy equipment such as excavators, scrapers, motor-graders, compactors, water trucks, tractors, loaders, pavers, and concrete mixers. Trucks would be used to deliver equipment and building materials, and to haul waste materials from the site. Smaller equipment, such as jackhammers, pneumatic tools, saws, and hammers, would also be used periodically throughout the site during the construction phase. This equipment would generate both steady-state and episodic noise that would be heard both on and off the project site. The amount of equipment and number of construction workers on the site would vary with each near-term project depending on the intensity of the action.

As stated above, the loud construction equipment, such as tractors, backhoes, trucks, and jackhammers, would be utilized during project construction, and result in noise levels over 95 dB(A) within 50 feet of their operation. Therefore, any campus residential building within 1,581 feet and with an uninterrupted line-of-sight to construction noise sources could be exposed to noise levels above the 65 dB(A) maximum

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37 Given that the proposed Faculty/Staff Housing is not low density the multi-family residential threshold was used in this analysis.

38 Cowan, James P. *Handbook of Environmental Acoustics*, pp. 246–247, 1994.

threshold for multi-family residential uses; and all other campus buildings within 889 feet and with an uninterrupted line-of-sight to construction noise sources could be exposed to noise levels above the 70 dB(A) maximum threshold for all other school uses. It should be noted that a single row of houses, or in this case buildings, between the receptor and the noise source reduces the noise level by about 5 dB(A) and 1.5 dB(A) for each additional row of buildings.[39] In reality, only a few of the campus buildings have an uninterrupted line-of-sight of the near-term projects.

Phase I

Given the distance between the non-residential near-term projects and existing/proposed residential structures and the presence of intervening structures, existing non-residential buildings on campus would be mainly affected by construction of non-residential near-term projects. As a result, construction of non-residential near-term projects could expose existing campus buildings to noise levels above the 70 dB(A) maximum threshold for school uses. The sites for the Phase I Faculty/Staff Housing, student housing, and the Housing Administration building are within close proximity to existing on-site residential buildings and other campus structures that construction of these near-term projects could expose existing non-residential and residential campus buildings to noise levels above the 65 dB(A) and 70 dB(A) maximum thresholds for multi-family and school uses.

As shown in **Table 3.4-1**, typical retail buildings in California have an exterior-to-interior noise attenuation level of between 17 to 25 dB(A) depending on whether windows are open or closed. Therefore, any exterior noise level above 62 dB(A) at an on-campus residential use would result in an interior noise level above the 45 dB(A) CNEL maximum interior threshold utilized by the Department of Health Services. Given an attenuation rate of approximately 6.0 to 7.5 dB(A) per doubling of distance for a stationary source, any campus residential building within 2,233 feet and with an uninterrupted line-of-sight to construction noise sources could be exposed to noise levels above the 45 dB(A) CNEL maximum interior threshold for residential uses. As stated above, the sites for the Phase I Faculty/Staff Housing, student housing, and the Housing Administration building are within close proximity to existing on-site residential buildings that construction of these near-term projects could expose existing residential campus buildings to interior noise levels above the 45 dB(A) maximum thresholds for residential uses.

Phase II

Given the distance between the non-residential near-term projects and existing/proposed residential structures and the presence of intervening structures, existing non-residential buildings on campus would be mainly affected by construction of non-residential near-term projects. As a result, construction

[39] Ibid.

of non-residential near-term projects could expose existing campus buildings to noise levels above the 70 dB(A) maximum threshold for school uses. During Phase II of the Master Plan, the Phase I Faculty/Staff Housing project and student housing project would already be constructed and occupied. Construction of the Phase II faculty housing would occur adjacent to the Phase I faculty housing and north of existing student housing. Construction of Phase II student housing would occur adjacent to Phase I student housing and adjacent to existing student housing. As a result, construction of the Phase II housing projects could expose the Phase I housing projects and existing on-site residential uses to noise levels above the 65 dB(A) maximum threshold for multi-family residential. As a result, construction of the Phase II housing projects could have potentially significant noise impacts on the Phase I housing projects and existing on-site residential uses.

As stated above, any exterior noise level above 62 dB(A) at an on-campus residential use would result in an interior noise level above the 45 dB(A) CNEL maximum interior threshold utilized by the Department of Health Services. Given an attenuation rate of approximately 6.0 to 7.5 dB(A) per doubling of distance for a stationary source, any campus residential building within 2,233 feet and with an uninterrupted line-of-sight to construction noise sources could be exposed to noise levels above the 45 dB(A) CNEL maximum interior threshold for residential uses. Construction of Phase II student housing would occur adjacent to Phase I student housing and adjacent to existing student housing. Consequently, construction of the Phase II housing projects could expose the Phase I housing projects and existing on-site residential uses to interior noise levels above the 45 dB(A) maximum threshold for residential uses. As a result, construction of the Phase II housing projects could have potentially significant interior noise impacts on the Phase I housing projects and existing on-site residential uses.

The Valley Performing Arts Center

Given the distance between the non-residential near-term projects and existing/proposed residential structures and the presence of intervening structures, existing non-residential buildings on campus would be mainly affected by construction of non-residential near-term projects. As a result, construction of non-residential near-term projects could expose existing campus buildings to noise levels above the 70 dB(A) maximum threshold for school uses.

Given the common use of construction equipment, the finite period associated with grading and construction both off site and in various portions of the campus itself, temporary noise impacts associated with these activities are considered a short-term nuisance. It should be noted, however, that a single row of houses or in this case buildings between the receptor and the noise source reduces the noise level by about 5 dB(A) and 1.5 dB(A) for each additional row of buildings.[40] Nonetheless, potential construction-

[40] Ibid.

related noise impacts associated with the Valley Performing Arts Center is expected to exceed "normally acceptable" exterior noise levels for on-campus school uses, as allowed by the Department of Health Services, and on-site construction noise impacts would, therefore, be considered significant.

Off-Site Operational Impacts

NOISE-4: The proposed project would result in a significant impact on noise levels from project operation if the project would cause the ambient noise level measured at the property line of affected noise uses to increase by 3 dB(A) in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category as identified in **Table 3.4-3**, or by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category.[41]

NOISE-5: Project-related operational (i.e., non-roadway) noise sources increase ambient noise by 5 dB(A), thus causing a violation of the City Noise Ordinance.

Roadway Noise

As stated above, none of the roadway segments would result in an increase in CNEL of 3 dB(A) to or within the "normally unacceptable" or "clearly unacceptable" category as identified in **Table 3.4-4**, or by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category for the year 2035 with project traffic volumes condition.[42] Given that year 2035 with project traffic volumes includes trips generated by all proposed projects under the Master Plan, trips generated by each project under the near-term project level have been taken into account under the 2035 with project traffic volume condition. Impacts would, therefore, be less than significant for each project under the near-term project level.

Point-Source Noise

Parking Structures

Of the two parking structures proposed under the near-term project level, development of Parking Structure PS-G6 would be located closest to the campus boundary. The roadway adjacent to the parking structure, which is Zelzah Avenue south of Lassen Street, is currently experiencing a noise level of approximately 64.0 dB(A), as indicated in **Table 3.4-2**. As stated above, the parking structures would be a maximum of six levels aboveground. Due to the high level of traffic noise along streets surrounding the campus, normal daytime parking structure L_{eq} noise would not likely be audible due to the masking of noise by traffic on nearby roadways. However, single noise events could be an annoyance to residents.

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41 Ibid., pp. I.2-3–I.2-4.

42 Ibid.

The nearest residences to Parking Structure PS-G6 are approximately 100 feet away. A car alarm, which generates the greatest noise level within a parking structure, would generate a noise level of approximately 68.0 dB(A) at the nearest residence.[43] Because of attenuation associated with the distance separation, the predicted noise level increase caused by activity within the parking structure would not cause a 5 dB(A) increase over the ambient noise level at the nearest sensitive receptor. As a result, impacts would be less than significant.

Rooftop-Mounted Equipment

The proposed Transit Center does not include electrical and mechanical heating, ventilation, and air conditioning equipment and is, therefore, not evaluated with regard to noise generated by rooftop-mounted equipment. As indicated in **Table 3.4-2**, the roadways adjacent to the near-term project sites are currently experiencing a noise level between 58.8 dB(A) and 67.8 dB(A). As the closest sensitive receptors in these areas are located approximately 60 feet from the project sites, temporary and periodic noise levels of up to 54.4 dB(A) are anticipated at these locations.[44] Although these noise levels may be annoying within a quiet environment, the existing ambient noise levels would substantially mask these on-site sources and the height differential between the roof of the project and the nearby receptors, as well as the roof parapet, would attenuate the noise levels associated with rooftop equipment. Given that ambient noise levels surrounding the project sites were modeled between 58.8 dB(A) and 67.8 dB(A), and because of the distance between the campus boundary and the nearest sensitive receptors, rooftop equipment would not cause the ambient noise level measured at the property line of affected noise uses to increase by 3 dB(A) in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category as identified in **Table 3.4-3**, or by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category. Based on the above, noise levels from roof-mounted equipment would be less than significant.

On-Campus Operational Impacts

NOISE-6: Project construction or operation activities would exceed "conditionally acceptable" exterior noise levels recommended by the Department of Health Services for various land use categories; 65 dB(A) maximum noise threshold for multi-family residential uses and 70 dB(A) maximum noise threshold for all other on-site school uses.[45]

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43 Based on an attenuation rate of 6.0 dB(A) per doubling distance at a reference distance of 100 feet.

44 Based on an attenuation rate of 6.0 dB(A) per doubling distance at a reference distance of 60 feet.

45 Given that the proposed Faculty/Staff Housing is not low density the multi-family residential threshold was used in this analysis.

NOISE-7: Project construction or operation activities would exceed interior noise level standard of 45 dB(A) CNEL for residential space.[46]

Roadway Noise

Implementation of the entire Master Plan represents the worst-case scenario with regard to operational impacts. Therefore, near-term projects are also evaluated under the worst-case scenario for analysis of operational impacts.

As stated above, none of the roadways surrounding or within the campus would exceed on-site noise thresholds except for Zelzah Avenue south of Lassen Street and Lassen Street east of Lindley Avenue. Proposed and existing residential uses along Zelzah Avenue south of Lassen Street would experience exterior and interior noise levels of approximately 65.2 dB(A) and 48.2 dB(A), respectively. In addition, modeled roadway noise levels along Lassen Street east of Lindley Avenue currently exceed the 65 dB(A) maximum threshold under the "normally acceptable" category for multi-family residential, as shown in **Table 3.4-2**. Proposed and existing residential uses along Lassen Street east of Lindley Avenue would experience exterior and interior noise levels of approximately 66.5 dB(A) and 49.5 dB(A), respectively. However, these exterior noise levels would attenuate at a rate of 3 dB(A) per the doubling of distance and by about 5 dB(A) for a single row of building and 1.5 dB(A) for each additional row of buildings.[47] Nonetheless, on-site noise impacts associated with near-term projects along these roadways would be significant.

Point-Source Noise

Parking Structures

Parking Structure PS-G3 and PS-G5 are the only parking structures proposed as part of the near-term projects. Both proposed parking structures are adjacent to one or more on-site campus building. However, neither parking structure is adjacent to an existing or proposed on-site residential use. As stated above, any school building within 79 feet and with an uninterrupted line-of-sight to a proposed parking structure would experience exterior noise levels above the maximum thresholds under the "normally acceptable" category for school uses. However, these exterior noise levels would attenuate at a rate of 6 dB(A) per the doubling of distance and for uses with an interrupted line-of-sight noise would attenuate by about 5 dB(A) for a single row of building and 1.5 dB(A) for each additional row of

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46 Cowan, James P. *Handbook of Environmental Acoustics*, pp. 246–247, 1994.

47 T. M. Barry and J. A. Reagan, U.S. Department of Transportation, Federal Highway Administration, Office of Research, Office of Environmental Policy, *FHWA Highway Traffic Noise Prediction Model*, (Washington D.C., December 1978), NTIS, FHWA-RD-77-108, p. 33.

buildings.[48] Nonetheless for a school use within the specified distance, on-site noise impacts associated with parking lot activities would be potentially significant prior to the incorporation of mitigation.

Rooftop-Mounted Equipment

Of the near-term projects, the proposed Transit Center and parking structures would not include electrical or mechanical equipment heating or air conditioning equipment. All other near-term buildings proposed on campus could introduce a range of stationary noise sources, including electrical and mechanical heating, ventilation, and air conditioning equipment, most of which would be located on rooftops. Typically, rooftop-mounted equipment sources produce noise levels of approximately 56 dB(A) at 50 feet, which is well below the 70 dB(A) and 65 dB(A) maximum exterior noise thresholds under the "normally acceptable" category for on-site school and multi-family uses, respectively. Given that typical school and residential buildings in California have a minimum exterior-to-interior noise attenuation level of 17 dB(A), interior noise levels would be approximately 39 dB(A) at 50 feet from rooftop equipment, which is below the 45 dB(A) maximum interior noise threshold for on-site residential uses. Although these noise levels may be annoying within a quiet environment, the existing ambient noise levels would substantially mask these on-site sources and the height differential between the roof of the project and the nearby receptors, as well as the roof parapet, would attenuate the noise levels associated with rooftop equipment. In addition, ambient noise levels surrounding the project sites were modeled between 47.8 dB(A) and 68.3 dB(A), which is within and above noise levels generated by rooftop equipment. As a result, interior and exterior noise levels from roof-mounted equipment would be less than significant.

3.4.7 MITIGATION MEASURES

Program-Level Analysis

Off-Site Construction Impacts. The following mitigation measures are intended to reduce Master Plan buildout construction noise impacts on surrounding residential uses to the extent feasible.

NOISE-1: As per Section 41.40 of the City of Los Angeles Noise Ordinance, construction operations shall be limited to the hours of 7 AM to 6 PM, Monday through Friday, and 8 AM to 6 PM on Saturdays and holidays. No construction operations shall be permitted on Sundays.

NOISE-2: As per Section 112.05 of the City of Los Angeles Noise Ordinance, all technically feasible measures shall be implemented to reduce noise levels of construction equipment operating within 500 feet of residential areas in cases where noise levels exceed 75 dB(A) at 50 feet from the noise source. Technically feasible measures include, but are not limited to, changing the

48 Ibid.

location of stationary construction equipment, shutting off idling equipment, notifying adjacent land uses in advance of construction work, ensuring that construction equipment is fitted with modern sound reduction equipment, and installing temporary acoustic barriers around stationary construction noise sources.

NOISE-3: Equipment used for project construction shall be hydraulically- or electrically-powered impact tools (e.g., jack hammers) wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Where use of pneumatically-powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. A muffler could lower noise levels from the exhaust by up to about 10 dB(A). External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB(A). Quieter procedures shall be used (such as drilling rather than impact equipment) wherever feasible. The project applicant shall require construction contractors to ensure that construction equipment is fitted with sound reduction equipment, per manufacturer's specifications.

NOISE-4: As per the City of Los Angeles Noise ordinance, CSUN shall post signs prior to construction activities with a phone number for residents to call with noise complaints.

NOISE-5: Prior to construction, noise barriers with a sound transmission coefficient (STC) that would attenuate noise levels at off-site noise sensitive uses for all construction phases shall be specified by an acoustical engineer.

On-Campus Construction Impacts. Mitigation Measures NOISE-1 through NOISE-5, above, are applicable to on-campus construction impacts associated with Master Plan buildout, and are intended to reduce construction noise impacts on on-campus uses adjacent to proposed development sites.

Off-Site Operational Impacts. No significant Master Plan operational impacts on off-site uses were identified, and no mitigation measures are required.

On-Campus Operational Impacts. The following measures are intended to reduce Master Plan buildout noise impacts on on-campus uses.

NOISE-6: CSUN shall install a solid barrier between the roadway and on-site residential uses along Zelzah Avenue, between Lassen Street and Parking Lot G7, and along Lassen Street, between

Lindley Avenue and Zelzah Avenue. The solid barrier would reduce noise levels by 5 to 10 dB(A).[49]

NOISE-7: Sound attenuation measures shall be incorporated into the design to minimize noise impacts generated by operation of the aboveground parking structure on the surrounding campus. These measures may include a half-wall on the grade-level parking deck and/or full walls on the sides of the structure that are facing nearby receptors and/or noise control louvers on selected structure facades that potentially influence receptor areas. Acoustical analysis shall be performed to demonstrate that the aboveground parking structure does not result in noise levels that exceed state standards at exterior on-site residential and school uses. These components shall be incorporated into the plans to be submitted by the applicant to CSUN for review and approval prior to the issuance of building permits.

Near-Term Project-Level Analysis

Off-Site Construction Impacts. Mitigation Measures NOISE-1 through NOISE-5, above, are applicable to proposed near-term Master Plan project-related on-campus construction noise impacts, and are intended to reduce impacts on on-campus uses adjacent to proposed development sites.

On-Campus Construction Impacts. Mitigation Measures NOISE-1 through NOISE-5, above, are applicable to proposed near-term Master Plan project-related on-campus construction noise impacts, and are intended to reduce impacts on on-campus uses adjacent to proposed development sites.

Off-Site Operational Impacts. No significant near-term project operational impacts on off-site uses were identified, and no mitigation measures are required.

On-Campus Operational Impacts. Mitigation Measures NOISE-6 and NOISE-7, above, are applicable to proposed near-term Master Plan project-related noise impacts on on-campus uses.

3.4.8 CUMULATIVE IMPACTS

A conservative approach was taken when analyzing cumulative impacts. The cumulative scenario under Program-Level Analysis and Near-Term Project-Level Analysis are both represented by build out of the proposed Master Plan. Therefore, both levels of analysis are analyzed together.

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[49] U.S. Department of Transportation, Federal Highway Administration, *Highway Noise Mitigation*, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 18.

Construction Impacts

There are eight related projects located within the project vicinity that have the potential to cause construction noise impacts. Due to the noise attenuation of distance, the cumulative effect of construction noise would occur when construction sites are in close proximity (within 1,500 feet). Sound levels may also be attenuated 3.0 to 5.0 dB(A) by the first row of houses and 1.5 dB(A) for each additional row of houses in residential environments. Consequently, in order to achieve a cumulative increase in noise levels, more than one source emitting high levels of noise would need to be located in close proximity to the noise receptor. One such related project is located at 9423 Reseda Boulevard, less than 0.25 mile west of the western campus boundary, with several intervening structures between the two sites; it is close enough to the campus to contribute to cumulative noise impacts. The related project by itself would generate noise levels above the acceptable City of Los Angeles noise threshold for construction activities and above thresholds for on-site uses. The combination of construction activities associated with the related project and projects associated with the 2005 Master Plan could all or partially occur during the same period. Therefore, there is the potential for combined construction noise impacts if activities are occurring simultaneously. While the projects would implement standard construction techniques to reduce noise, the combined noise effect of related projects and the project's contribution would be cumulatively significant.

Roadway Noise

Cumulative noise impacts would primarily occur as a result of increased traffic on local roadways due to ambient growth and other developments in the vicinity of the project site. The traffic study conducted for the proposed project projected future traffic volumes based on year 2035 weekday conditions. Based on the predicted future traffic levels under year 2035 weekday conditions identified in the traffic study, future noise levels were calculated using the FHWA Noise Prediction Model for the same roadway segments at the same reference locations analyzed throughout this analysis.[50] The results of the noise prediction modeling are presented in **Table 3.4-5, Cumulative Weekday Modeled Roadway Noise Levels**.

As shown, the cumulative increase in noise levels predicted to occur on the studied roadway segments would range from 0.7 to 4.4 dB(A). As shown in **Table 3.4-5**, below, the project's contribution is a maximum of 3.7 dB(A). Given that both the existing and year 2035 plus project conditions are within the "clearly acceptable" category, the project's contribution would not cause the ambient noise level measured at the property line of affected noise uses to increase by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category as identified in **Table 3.4-4**.[51] Although noise levels for some of

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50 Kaku Associates, Inc., *Draft Traffic and Parking Study for the California State University Northridge Master Plan*, September 2005; Noise Models contained in **Appendix C**.

51 City of Los Angeles Draft *CEQA Thresholds Guide*, May 14, 1998, pp. I.2-3–I.2-4.

the roadway segments would exceed "normally acceptable" category for various uses, the project's contribution to the roadway segments would not cause the ambient noise level measured at the property line of affected noise uses to increase by 3 dB(A) in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category or by 5 dB(A) within "normally acceptable" or "conditionally acceptable" category.[52] Therefore, the project would not result in a considerable contribution to cumulative roadway noise level increases.

Under cumulative traffic conditions, the highest roadway noise level on the roadway segments adjacent to the project site would occur on Nordhoff Street east of Lindley Avenue. At this location, exterior noise levels of 68.9 dB(A) generated by vehicular traffic can be anticipated at points 100 feet from the centerline of the roadway. The maximum cumulative noise increase expected on roadways adjacent to the project site would be 4.4 dB(A). This noise level increase is below the 5 dB(A) threshold of significance used in this analysis.

With regard to on-site uses, **Table 3.4-4** indicates that none of the roadways surrounding or within the campus would exceed 70 dB(A) after implementation of the proposed Master Plan. Therefore, exterior noise levels along the roadways surrounding and within the campus in the year 2035 with project traffic volumes are within the "normally acceptable" category for school uses. Regarding on-site residential uses, Zelzah Avenue south of Lassen Street and Lassen Street east of Lindley Avenue are roadways with noise levels above 65 dB(A), after implementation of the proposed Master Plan, that are adjacent to existing and/or proposed on-site residential uses. However, modeled roadway noise levels along Lassen Street east of Lindley Avenue currently exceed the 65 dB(A) maximum threshold under the "normally acceptable" category for multi-family residential, as shown in **Table 3.4-2** at 65.7 dB(A). After implementation of the proposed Master Plan, noise levels along Lassen Street east of Lindley Avenue would increase by 0.1 dB(A) compared to the year 2035 without project condition. Prior to implementation of the proposed Master Plan, noise levels along Zelzah Avenue south of Lassen Street would be approximately 64.7 dB(A) compared to 65.2 after implementation of the Master Plan. However, implementation of Mitigation Measure NOISE-6 would reduce exterior noise levels below the 65 dB(A) maximum threshold for multi-family uses and interior noise levels below the 45 dB(A) threshold for residential uses. Therefore, the project's contribution to on-site noise levels is not cumulatively considerable.

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52 Ibid.

Table 3.4-5
Cumulative Weekday Modeled Roadway Noise Levels

Roadway Segment	Existing 2005 Roadway Noise Level	Year 2035 Cumulative Roadway Noise Level	Year 2035 Cumulative Plus Project Roadway Noise Level	Cumulative Related Increase	Project-Related Increase
118 WB Ramps S/O Rinaldi St.	83.5	84.2	84.2	0.7	0.0
Rinaldi St. E/O 118 WB Ramps	67.6	68.3	68.4	0.8	0.1
Reseda Blvd. N/O Rinaldi St.	60.7	61.5	61.5	0.8	0.0
Rinaldi St. E/O Reseda Blvd.	65.8	66.5	66.6	0.8	0.1
Reseda Blvd. N/O 118 EB Ramps	65.7	66.5	66.5	0.8	0.0
Reseda Blvd. S/O 118 EB Ramps	67.2	68.0	68.0	0.8	0.0
118 EB Ramps W/O Reseda Blvd.	83.3	84.0	84.0	0.7	0.0
Balboa Blvd. N/O 118 WB Ramps	66.6	67.3	67.4	0.8	0.1
Balboa Blvd. S/O 118 WB Ramps	66.7	67.5	67.6	0.9	0.1
118 WB Ramps E/O Balboa Blvd.	83.8	84.5	84.5	0.7	0.0
Balboa Blvd. N/O 118 EB Ramps	66.7	67.5	67.6	0.9	0.1
Balboa Blvd. S/O 118 EB Ramps	66.5	67.3	67.6	1.1	0.3
118 EB Ramps E/O Balboa Blvd.	83.7	84.4	84.5	0.8	0.1
Reseda Blvd. N/O Chatsworth St.	66.6	67.4	67.4	0.8	0.0
Reseda Blvd. S/O Chatsworth St.	66.9	67.6	67.6	0.7	0.0
Chatsworth St. W/O Reseda Blvd.	63.1	63.9	63.9	0.8	0.0
Chatsworth St. E/O Reseda Blvd.	63.8	64.6	64.7	0.9	0.1
Zelzah Ave. N/O Chatsworth St.	61.5	62.2	62.5	1.0	0.3
Zelzah Ave. S/O Chatsworth St.	62.9	63.7	64.0	1.1	0.3
Chatsworth St. E/O Zelzah Ave.	63.7	64.6	64.5	0.8	0.1
Balboa Blvd. S/O Chatsworth St.	65.9	66.7	67.0	1.1	0.3
Chatsworth St. E/O Balboa Blvd.	62.6	63.4	63.5	0.9	0.1
Reseda Blvd. S/O Devonshire St	66.9	67.7	67.8	0.9	0.1
Lindley Ave. S/O Devonshire St	58.8	59.6	59.9	1.1	0.3
Devonshire St. W/O Reseda Blvd.	66.6	67.4	67.5	0.9	0.1
Devonshire St. E/O Reseda Blvd.	66.5	67.3	67.5	1.0	0.2
Devonshire St. E/O Lindley Ave.	66.5	67.3	67.6	1.1	0.3
Zelzah Ave. S/O Devonshire St.	63.0	63.7	64.4	1.4	0.7
Devonshire St. E/O Zelzah Ave.	66.5	67.3	67.5	1.0	0.2
Balboa Blvd. S/O Devonshire St.	65.7	66.4	66.6	0.9	0.2
Devonshire St. E/O Balboa Blvd.	66.8	67.5	67.7	0.9	0.2
Woodley Ave. N/O Devonshire St	63.0	63.7	63.7	0.7	0.0
Woodley Ave. S/O Devonshire St	60.6	61.3	61.4	0.8	0.1
Devonshire St. E/O Woodley Ave.	67.1	67.8	68.0	0.9	0.2
405 SB Ramps N/O Devonshire St	82.9	83.7	83.7	0.8	0.0
405 NB Ramps N/O Devonshire St	82.9	83.6	83.6	0.7	0.0
405 NB Ramps S/O Devonshire St	83.0	83.7	83.7	0.7	0.0
Devonshire St. E/O 405 NB Ramps	66.8	67.5	67.5	0.7	0.0
Tampa Ave. N/O Lassen St.	63.3	64.2	64.2	0.9	0.0
Tampa Ave. S/O Lassen St.	67.3	68.3	68.3	1.0	0.0
Wilbur Ave. N/O Lassen St.	63.9	64.7	64.7	0.8	0.0
Wilbur Ave. S/O Lassen St.	63.8	64.5	64.5	0.7	0.0
Reseda Blvd. S/O Lassen St.	63.2	64.0	64.1	0.9	0.1
Lindley Ave. S/O Lassen St.	57.4	58.2	58.2	0.8	0.0
Zelzah Ave. S/O Lassen St.	64.0	64.7	65.2	1.2	0.5
Balboa Blvd. S/O Lassen St.	65.3	66.0	66.3	1.0	0.3
Lassen St. W/O Tampa Ave.	64.5	65.2	65.2	0.7	0.0
Lassen St. E/O Tampa Ave.	64.9	65.6	65.7	0.8	0.1
Lassen St. E/O Wilbur Ave.	64.8	65.6	65.7	0.9	0.1
Lassen St. E/O Reseda Blvd.	64.8	65.6	65.7	0.9	0.1
Lassen St. E/O Lindley Ave.	65.7	66.4	66.5	0.8	0.1
Lassen St. E/O Zelzah Ave.	64.9	65.7	65.8	0.9	0.1

Roadway Segment	Existing 2005 Roadway Noise Level	Year 2035 Cumulative Roadway Noise Level	Year 2035 Cumulative Plus Project Roadway Noise Level	Cumulative Related Increase	Project-Related Increase
Lassen St. E/O Balboa Blvd.	61.4	62.1	62.2	0.8	0.1
Tampa Ave. S/O Plummer St.	67.1	68.3	68.3	1.2	0.0
Wilbur Ave. S/O Plummer St.	62.2	62.9	62.9	0.7	0.0
Reseda Blvd. S/O Plummer St.	65.6	66.4	66.5	0.9	0.1
Zelzah Ave. S/O Plummer St.	63.9	64.6	64.9	1.0	0.0
Balboa Blvd. S/O Plummer St.	65.4	66.1	66.3	0.9	0.2
Plummer St. W/O Tampa Ave.	65.7	66.6	66.7	1.0	0.1
Plummer St. E/O Tampa Ave.	63.5	64.3	64.5	1.0	0.2
Plummer St. E/O Wilbur Ave.	62.2	63.0	63.3	1.1	0.3
Plummer St. E/O Reseda Blvd.	60.4	61.1	61.7	1.3	0.6
Plummer St. E/O Zelzah Ave.	60.2	60.9	62.2	2.0	1.3
Plummer St. E/O White Oak Ave.	61.6	62.3	63.3	1.7	1.0
Plummer St. E/O Balboa Blvd.	62.3	63.0	63.6	1.3	0.6
Reseda Blvd. S/O Prairie St.	65.8	66.7	66.8	1.0	0.1
Prairie St. E/O Reseda Blvd.	49.9	50.6	50.9	1.0	0.3
Zelzah Ave. S/O Prairie St.	63.2	63.9	64.1	0.9	0.2
Prairie St. E/O Zelzah Ave.	44.5	45.2	48.5	4.0	3.3
Prairie St. E/O White Oak Ave.	43.6	44.3	48.0	4.4	3.7
Tampa Ave. S/O Nordhoff St.	67.6	68.7	68.7	1.1	0.0
Reseda Ave. S/O Nordhoff St.	65.4	66.3	66.4	1.0	0.1
Darby Ave. N/O Nordhoff St.	52.0	52.7	52.7	0.7	0.0
W. University Dr. N/O Nordhoff St.	50.1	50.8	51.8	1.7	1.0
Etiwanda Ave. S/O Nordhoff St.	45.8	46.6	48.3	2.5	1.7
E. University Dr. N/O Nordhoff St.	47.8	48.6	48.8	1.0	0.2
Lindley Ave. S/O Nordhoff St.	61.6	62.4	62.5	0.9	0.1
Zelzah Ave. S/O Nordhoff St.	54.4	55.2	55.2	0.8	0.0
Balboa Blvd. S/O Nordhoff St.	65.7	66.5	66.5	0.8	0.0
Woodley Ave. S/O Nordhoff St.	64.4	65.1	65.1	0.7	0.0
Nordhoff St. W/O Tampa Ave.	66.4	67.6	67.6	1.2	0.0
Nordhoff St. E/O Tampa Ave.	67.6	68.5	68.5	0.8	0.0
Nordhoff St. E/O Wilbur Ave.	67.3	68.2	68.2	0.9	0.0
Nordhoff St. E/O Reseda Blvd.	67.9	68.7	68.7	0.9	0.0
Nordhoff St. E/O Darby Ave.	67.9	68.7	68.7	0.8	0.0
Nordhoff St. E/O Etiwanda Ave.	67.9	68.7	68.8	0.8	0.1
Nordhoff St. E/O Lindley Ave.	68.3	69.1	69.1	0.8	0.0
Nordhoff St. E/O Zelzah Ave.	67.4	68.2	68.3	0.9	0.1
Nordhoff St. E/O White Oak Ave.	67.2	68.0	68.1	0.9	0.1
Nordhoff St. E/O Balboa Blvd.	67.6	68.4	68.5	0.9	0.1
Nordhoff St. E/O Woodley Ave.	67.6	68.4	68.5	0.9	0.1
405 SB Ramps S/O Nordhoff St.	83.8	84.5	84.5	0.7	0.0
405 NB Ramps S/O Nordhoff St.	83.8	84.5	84.5	0.7	0.0
Reseda Blvd. S/O Parthenia St.	65.2	66.1	66.1	0.9	0.0
Lindley Ave. S/O Parthenia St.	62.6	63.3	63.5	0.9	0.2
Reseda Blvd. S/O Roscoe Blvd.	64.4	65.3	65.3	0.9	0.0
Lindley Ave. S/O Roscoe Blvd.	61.8	62.5	62.6	0.8	0.1
Parthenia St. E/O Lindley Ave.	66.8	67.8	67.8	1.0	0.0
Roscoe Blvd. E/O Reseda Blvd.	65.7	66.6	66.6	0.9	0.0
Roscoe Blvd. E/O Lindley Ave.	65.7	66.5	66.5	0.8	0.0

Source: Impact Sciences, Inc. Model results are contained in ***Appendix C****.*
Note: Noise level estimates are at 100 feet from the roadway centerline.

3.4.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

Even with the implementation of the required mitigation measures, construction noise impacts would be significant and unavoidable because of the proximity of sensitive receptors on-campus and off site. However, construction noise impacts would be short term in duration and would not constitute a substantial contribution to cumulatively considerable noise impacts. Operational noise impacts would be reduced to less than significant levels with mitigation and would not constitute a substantial contribution to cumulatively considerable noise impacts.

3.5 POPULATION AND HOUSING

3.5.1 INTRODUCTION

This section analyzes the potential for implementation of the 2005 Master Plan to result in substantial population growth or displacement of housing. This analysis is based on information obtained from the City of Los Angeles General Plan (Northridge Community Plan), Southern California Association of Governments (SCAG), and United States Census Bureau.

3.5.2 METHODOLOGY

The methodology used to evaluate population and housing impacts is that presented in the City of Los Angeles *Draft California Environmental Quality Act (CEQA) Thresholds Guide*. In order to assess potential impacts, the increase in local residential population and introduction of housing units proposed under the CSUN Master Plan is compared to SCAG and City of Los Angeles population and housing projections.

3.5.3 EXISTING CONDITIONS

United States Census 2000

The U.S. census is conducted every 10 years (during the years ending in "0") to document the population and number of housing units for the entire United States. While its primary purpose is to provide the population counts that determine how seats in the U.S. House of Representatives are apportioned, the census data forms the basis for most demographic projections. The census data, which was compiled using answers to surveys sent to all households in the United States, are provided for the nation, all states, all counties, and each individual city.

The CSUN campus is located within Census Tract 1152.02. In 2000, the most recent year for which census data are available, the population of Tract 1152.02 was 4,674. This population resided in 1,858 households with an average household size of 2.5 persons per household.[1]

State of California Department of Finance

Based on Census benchmark data, the California State Department of Finance provides population estimates for the years in between the Census for cities throughout the state. To produce these estimates, the Department of Finance compiles data on new construction, annexations, and demolitions.

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1 U.S. Census Bureau, 2000 Census, American Fact Finder. Data available on-line at http://censtats.census.gov. Date accessed: October 14, 2005.

The Department of Finance estimated the population of the City of Los Angeles at the start of 2005 was 3,957,875 and that the City is currently growing at approximately 1.1 percent per year.[2]

Southern California Association of Governments

The project site is located within the six-county jurisdiction of the SCAG, which includes Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. To facilitate regional planning efforts, the SCAG planning area is further divided into 14 subregions. The project site is located within the City of Los Angeles subregion.

One of SCAG's primary functions is to forecast population, housing, and employment growth for the region, subregions, and cities. The latest forecast was compiled as part of the 2004 Regional Transportation Plan update.

City of Los Angeles Subregion

Table 3.5-1, SCAG Forecast of Population and Housing for the City of Los Angeles Subregion, shows the SCAG population, housing, and employment projections for the City of Los Angeles subregion in five-year increments from the year 2000 through 2030. The population in this subregion is expected to grow at an annual rate of 0.5 percent, which is slower than the rest of Los Angeles County, projected to grow at an annual rate of 0.9 percent. The projected household annual growth rate in the subregion is 0.9 percent, higher than the projected population growth rate for the same area. As shown in the table, the population is currently 4,032,474, occupying 1,330,724 households. In 2030, the population is predicted to grow to 4,413,425 and occupy 1,663,002 households.

Table 3.5-1
SCAG Forecast of Population and Housing for the City of Los Angeles Subregion

	2000	2005	2010	2015	2020	2025	2030
Population	3,788,752	4,032,474	4,176,079	4,237,887	4,298,891	4,357,359	4,413,425
Households	1,295,410	1,330,724	1,393,635	1,460,680	1,528,771	1,596,055	1,663,002

Source: 2004 Regional Transportation Plan/Growth Vision: Socio-Economic Forecast Report, June 2004.

2 California State Department of Finance, E-1 City/County/State Population Estimates with Annual Percent Change, January 1, 2004 and May 2005.

City of Los Angeles

As shown in **Table 3.5-2, SCAG Forecast of Population and Housing for the City of Los Angeles**, the population of the City of Los Angeles is currently 3,950,347 and is expected to increase to 4,309,625 by the year 2030. This population currently occupies 1,311,134 households and will occupy 1,637,475 households by the year 2030.

Table 3.5-2
SCAG Forecast of Population and Housing for the City of Los Angeles

	2000	2005	2010	2015	2020	2025	2030
Population	3,711,969	3,950,347	4,090,125	4,147,285	4,203,702	4,257,771	4,309,625
Households	1,276,578	1,311,134	1,372,873	1,438,731	1,505,615	1,571,712	1,637,475

Source: 2004 Regional Transportation Plan/Growth Vision: Socio-Economic Forecast Report, June 2004.

Northridge Community Plan

The Northridge Community Plan, updated February 24, 1998, contains projections for population and dwelling unit count for the year 2010 within the plan area. These projections are based on the residential, commercial, and industrial densities and intensities proposed by the plan. The plan projected that the 2010 plan area population would be 66,351 and the number of dwelling units would be 23,627. Based on the 2000 Census, the population of the Northridge Community Plan area was 62,784 and 22,437 dwelling units. The City estimates that in 2004 the population reached 66,870, with 22,765 dwelling units.[3] According to this estimate, the Northridge community population already exceeds 2010 population projections by 519 persons and the number of dwelling units in the community has increased to within 862 units of the projected 2010 total.

3.5.4 REGULATORY SETTING

City of Los Angeles General Plan: Northridge Community Plan

The Northridge Community Plan is one of 35 community plans that comprise the City of Los Angeles General Plan Land Use Element. Chapter III, Land Use Policies and Programs, of the Northridge Community Plan contains goals and policies regarding population and housing in the community. Plan goals include providing high-quality and affordable residential uses for all economic levels and locating housing in areas that result in traffic reduction. Policies to achieve these goals include not allowing

3 Los Angeles Department of City Planning/Demographic Research Unit, May 2005.

commercial development in areas designated for residential uses and locating higher density residential uses near existing commercial uses.

3.5.5 SIGNIFICANCE CRITERIA

According to the City of Los Angeles *CEQA Thresholds Guide*, a significant population and housing impact would occur if:

POP-1: The project would cumulatively exceed official local population projections;

POP-2: The project would induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or as a result of an extension of major infrastructure); and/or

POP-3: The project would displace existing housing, especially affordable housing.

3.5.6 ENVIRONMENTAL IMPACTS

Program Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next thirty years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents (FTEs), over the next 30 years, as well as accommodate the evolving pedagogical needs of the University's academic, administrative, student-support, and campus-support department and programs.

POP-1: The project would cumulatively exceed official local population projections.

Implementation of the Master Plan would include the development of student housing for up to 2,688 students and 600 faculty/staff residential units. Future student housing, dining, and parking facilities are proposed as infill on three sites on campus. Four residential buildings (H1–H4) housing a total of 896 students would be located in University Park near existing student housing. Two new student housing communities would be located in the Northwest Precinct of campus. Each student housing community in the Northwest Precinct would encompass four residential buildings (H5–H8 and H9–H12); each four-building community would house 896 students.

Faculty/staff housing is proposed on two sites: 50 units in the Northwest Precinct at the corner of Halsted Street and Darby Avenue, and a larger complex, or village, north of Lassen Street. This housing would be a mix of rental units and for-sale units with purchase conditions to ensure units remain affordable and

available to University employees. The 600-faculty/staff housing residential units are projected to house 1,500 persons, based on a factor of 2.5 persons per unit.

The total on-campus residential population would increase by 4,188 with the construction of all proposed student and faculty/staff housing units. According to SCAG projections, the City of Los Angeles would have a population of 4,309,625 by the year 2030. Growth associated with Master Plan implementation would account for 1.2 percent of the SCAG projected growth. This increase accounts for a minor percentage of SCAG's growth projections.

The Northridge Community Plan projects the local population through year 2010. As stated previously, the most recent estimates show that population and number of dwelling units exceed this projection by 519 and 862, respectively and it should be noted that the Community Plan was last updated in 1998. Phase I of the Master Plan implementation would be complete by 2009. Included in this phase is one student housing building (H1) with 252 student beds and 250 faculty/staff residential units. The residential components of the Master Plan that would be completed by the year 2010 represent the supply needed to meet demand associated with the growing Northridge community. Further, by providing housing for students and employees of CSUN, the University would accommodate a portion of its own growth on campus while reducing the need for commuting. This is consistent with Objective 1-2 of Chapter III, Land Use Policies and Programs of the Northridge Community Plan, which recommends locating new housing appropriately in a manner which reduces vehicular trips and which increases accessibility to services and facilities. Further, the Master Plan residential component is consistent with Policy 1-2.3 of the Community Plan, which states that there should be an adequate supply of housing to meet the needs of students attending CSUN without creating adverse impacts on adjacent permanent residential neighborhoods. Therefore, the Master Plan is considered consistent with the Northridge Community Plan.

In addition to being consistent with the SCAG projections and the Community Plan, the additional housing proposed on campus, as with all components of the 2005 Master Plan, is specifically intended to accommodate projected enrollment increases at CSUN through 2035. Faculty/staff housing is intended to aid in faculty/staff recruitment to maintain the necessary faculty-to-student ratio at the University. Master Plan implementation is not growth inducing and would not result in the exceedance of local population projections. Impacts related to local population projections would be less than significant.

POP-2: The project would induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or as a result of an extension of major infrastructure).

The student and faculty/staff housing proposed as part of the 2005 Master Plan would occur within existing campus boundaries, which constitute an urbanized area with established infrastructure. As urban infill, residential development proposed under the Master Plan would neither encroach on isolated or open space areas nor remove physical impediments to growth. Implementation of the CSUN Master Plan would not directly or indirectly induce substantial growth in an undeveloped area, and impacts would be less than significant.

POP-3: The project would displace existing housing, especially affordable housing.

The CSUN Master Plan proposes to introduce new student and faculty/staff housing units to the campus to increase the 24-hour residential population on campus. Master Plan implementation would not result in the displacement of existing housing on or off campus. Furthermore, residential units intended for University employees would be priced so as to be affordable to that demographic. Impacts related to the displacement of existing housing and affordable housing would be less than significant.

Near-Term Project Level Analysis

As stated in **Section 2.0**, **Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Center, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, the Science 5 facility, and 250 faculty/staff housing units. Phase 2 development projects include Parking Structure G6, Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities, the Student Recreation Center, and 100 faculty/staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

POP-1: The project would cumulatively exceed official local population projections.

Phase 1

Phase 1 of the Master Plan proposes the development of a student residential facility housing 252 student beds, and 250 faculty/staff residential units. These projects would increase the on-campus residential population by 877 persons, using a factor 2.5 per faculty/staff residential unit. This population growth and increase in the number of dwelling units represents 0.6 percent of SCAG's 2010 population growth projections for the City of Los Angeles and would, therefore, be consistent with these projections. As discussed above, while the population within the Northridge Community Plan area has already exceeded projections for 2010, the proposed project is consistent with Community Plan policies and increases the local housing supply, which would partially satisfy existing demand. As such, Phase 1 of the Master Plan

would not result in the exceedance of official local population projections. Impacts would be less than significant.

The non-residential components of those analyzed in this EIR under Phase 1 of the CSUN Master Plan would not result in an increase in population that exceeds official local projections. The Transit Center, Parking Structure G3, Science 5 building, and Student Housing Administration Building are intended to serve the existing campus community. Impacts would be less than significant.

Phase 2

This EIR addresses potential impacts associated with implementation of 100 faculty/housing units (FH-2) as part of Phase 2 of the Master Plan. This would increase the residential population on campus by 250 persons, based on a factor of 2.5 residents per unit. This increase is consistent with 2015 SCAG projections for the City of Los Angeles and would represent 0.1 percent of the projected population growth. As such, impacts would be less than significant.

The non-residential components of those analyzed in this EIR under Phase 2 of the CSUN Master Plan would not result in an increase in population that exceeds official local projections. Parking Structure G6, Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities and the Student Recreation Center are intended to serve the existing campus community. Impacts would be less than significant.

Valley Performing Arts Center

As with the non-residential components of Phase 1 and 2, implementation of the Valley Performing Arts Center would not result in an increase in population that exceeds published population projections. This facility is intended for use by the existing campus and Northridge community. Impacts would be less than significant.

POP-2: The project would induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or as a result of an extension of major infrastructure).

The discussion of program-level impacts applies to all of the student beds proposed in the University Park Student Housing and faculty/staff housing units proposed under Phases 1 and Phase 2. These Master Plan components would constitute urban infill residential development in an area with established infrastructure. As such, their development would not encroach on isolated or open space areas nor remove physical impediments to growth. In addition, implementation of the Transit Center, Parking Structure G3 and Student Housing Administration Building as part of Phase 1; Parking Structure G6, Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities and Student Recreation Center as part of Phase 2; and Valley Performing Arts Center and Science Five Facility would not directly or

indirectly induce substantial growth in an undeveloped area as these structures are also urban infill and are intended for use by the existing campus community. Impacts would be less than significant.

POP-3: The project would displace existing housing, especially affordable housing.

The discussion of program-level impacts applies to the near-term Master Plan projects proposed under Phase 1 and Phase 2 as well as the Valley Performing Arts Center and Science Five Facility. None of these projects would result in the displacement of existing housing on or off campus. The University Park student housing and 250 faculty/staff housing units as part of Phase 1 and 100 faculty/staff housing units as part of Phase 2 would provide additional housing for those who work for and attend CSUN. As stated previously, these units would be priced appropriately for the demographic they are intended to serve. Impacts related to the displacement of existing housing and affordable housing as a result of implementation of those near-term projects analyzed in this EIR would be less than significant.

3.5.7 MITIGATION MEASURES

Program-Level Analysis

The Master Plan would result in less than significant impacts related to population growth or housing displacement, and no mitigation measures are required.

Near-Term Project-Level Analysis

The proposed near-term Master Plan projects would result in less than significant impacts related to population growth or housing displacement, and no mitigation measures are required.

3.5.8 CUMULATIVE IMPACTS

The list of related projects shown in **Section 1.0, Executive Summary**, of this Draft EIR includes 514 new dwelling units. SCAG projects that the City of Los Angeles will add 326,341 dwelling units and have an increase in population of 359,278 between 2005 and 2030. The additional housing and associated population growth proposed as part of the CSUN Master Plan and the identified related projects would represent less than 1 percent and 1.2 percent of the projected increases for the City of Los Angeles, respectively. As with the 2005 Master Plan, the related projects are located in areas that are already urbanized and that contain established infrastructure. As urban infill, these projects would not encroach on isolated or open space areas nor remove physical impediments to growth. As such, the Master Plan would not contribute to cumulatively considerable population growth or housing availability impacts.

3.5.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

The project would not result in unavoidable significant impacts with respect to population or housing.

3.6 PUBLIC SERVICES

3.6.1 INTRODUCTION

This section evaluates the potential impacts of the proposed 2005 Master Plan on public services, specifically City of Los Angeles fire and police protection services and University police protection services. Analysis is based on information provided by the California State University, Northridge (CSUN) University Police Department, Los Angeles Police Department (LAPD) and Los Angeles Fire Department (LAFD). The State Fire Marshall and California State University Police maintain ultimate review and approval authority over aspects of the proposed project that relate to fire and police protection, respectively.

3.6.2 METHODOLOGY

Potential project impacts on fire protection services were determined based on the potential for the Master Plan implementation to affect the ability of the LAFD to maintain adequate service ratios, response times, or other performance objectives.

Potential project impacts on police protection services were evaluated based on the adequacy of existing and anticipated staffing, equipment, and facilities to meet any additional demand for City of Los Angeles police protection services resulting from development of the proposed project. Potential effects on the officer-to-population ratio and the net increase in reported incidents and calls for service were taken into consideration when determining the impact of the Master Plan on police protection services.

3.6.3 EXISTING CONDITIONS

Fire Protection

Fire prevention, fire protection, and emergency medical services (EMS) for the CSUN campus are provided by the LAFD. The LAFD operates a total of 103 fire stations grouped into 18 battalions and three divisions.[1] Primary fire protection for the south campus is provided by Fire Station No. 103, located at 18143 Parthenia Street in Northridge, approximately 0.5 mile to the south. Fire Station No. 70, located at 9861 Reseda Boulevard in Northridge, approximately 1.5 miles to the northeast, provides primary fire protection for the north campus. **Figure 3.6-1, Fire Station Locations**, shows the location of Fire Station Nos. 103 and 70 relative to the CSUN campus. Target response times within the City of Los Angeles are 5 minutes for first response and 8 minutes for paramedic response. Currently, average response times are 5.5 minutes for first response and 3.7 minutes for paramedic response in the Northridge community. At this time, the LAFD considers fire protection services in the Northridge community adequate based on

1 Los Angeles Fire Department, www.lafd.org, accessed September 6, 2005.

equipment, staffing, facilities, and response times.[2] A description of equipment and staffing at Fire Station Nos. 103 and 70 is provided below.

Fire Station No. 103 is equipped with a Paramedic Assessment Fire Engine and a Paramedic Rescue Ambulance. Fire Station No. 103 is supported by six staff members at all times. Four staff members at this station are assigned to the Paramedic Assessment Fire Engine, and two members are assigned to the Paramedic Rescue Ambulance. Staffing at this station is considered adequate.[3]

Fire Station No. 70 is equipped with a Paramedic Assessment Light Force (Truck and Engine Company), Basic Life Support (BLS) Fire Engine, Hazardous Materials Squad, Paramedic Rescue Ambulance, and Battalion Command Team. Fire Station No. 70 is supported by 18 staff members at all times. Six staff members are assigned to the Paramedic Assessment Light Force, four to the BLS Fire Engine, four to the hazardous materials squad, two to the Paramedic Rescue Ambulance, and two to the Battalion Command Team. Staffing at this station is considered adequate.[4]

Police Protection

California State University, Northridge Police Department

First-response police protection services for the CSUN campus are provided by the University Police Department, which is a part of the CSUN Department of Public Safety. The department station is currently located at 9757 Zelzah Avenue, UPA Building 14, on the CSUN campus. Construction of a new parking and public safety building was recently completed near the corner of Darby and Prairie Street and will house both the University Police Department and Parking Services.

The University Police Department is currently supported by 26 sworn police officers. Under the direction of the Day Watch Patrol Operations Lieutenant, there are 2 patrol sergeants, 2 corporals, 4 police officers, and 3 public safety dispatchers. The Night Watch Patrol Operations Lieutenant also oversees 2 patrol sergeants, 2 corporals, and 3 public safety dispatchers, but has 5 police officers and 44 community service student assistants and Matador Patrol Safety Escorts. The Special Services Division Lieutenant directs 1 detective sergeant, 1 detective corporal, and 1 crime prevention corporal. The Department of Public Safety fleet includes 6 marked black-and-white police cars, 3 unmarked police cars (two carrying emergency equipment), 2 Harley-Davidson Road King police motorcycles (fully equipped with emergency equipment), 2 Kawasaki Police 1000 motorcycles, 10 patrol bicycles, 1 black-and-white special operations van, and 1 traffic control trailer with radar and digital display. The department also recently added a K-9 unit with 1 dog to its fleet.

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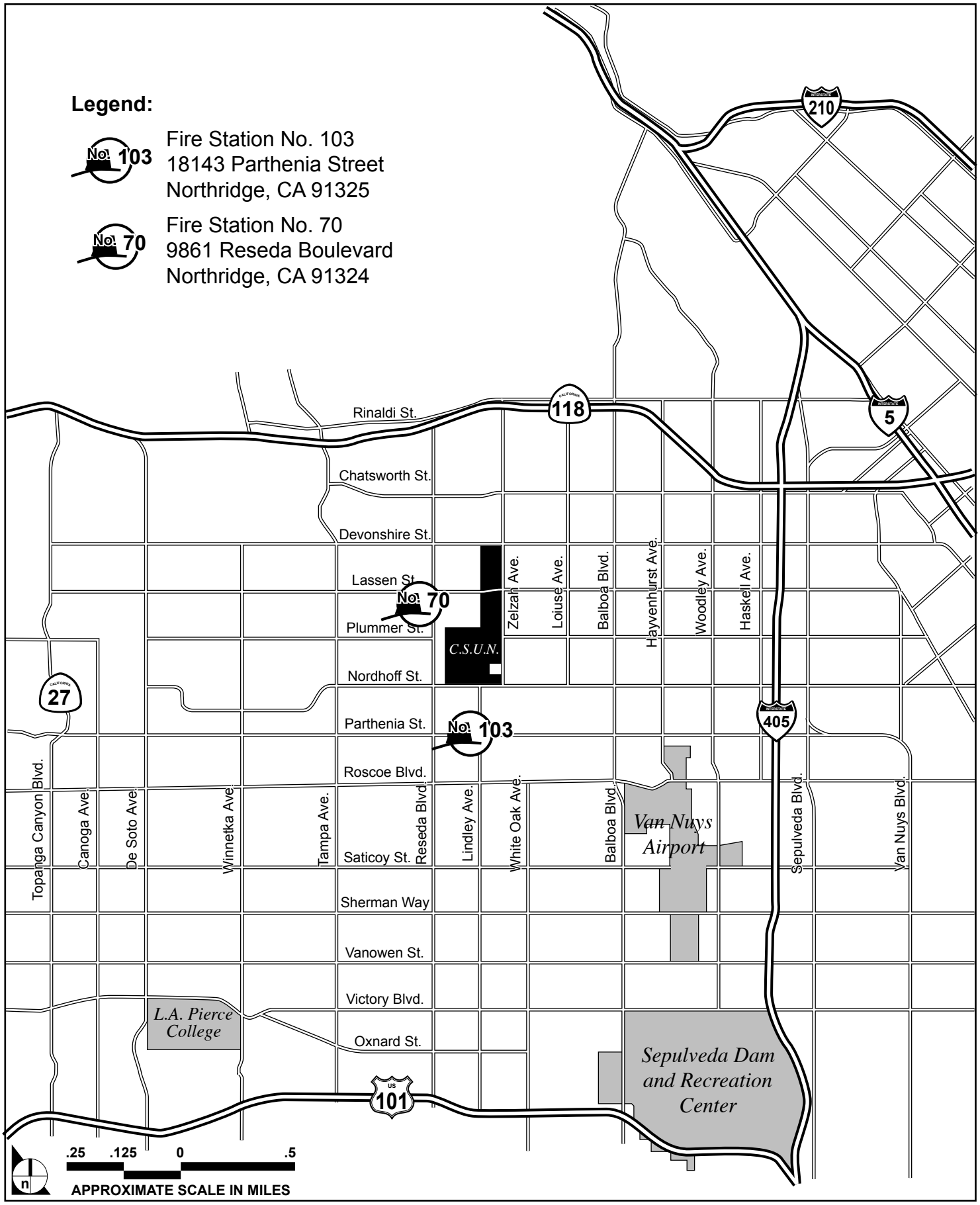
2 Written correspondence with Captain William N. Wells, LAFD, September 1, 2005.
3 Ibid.
4 Ibid.



SOURCE: Thomas Bros. Maps – 2002, Impact Sciences, Inc. – April 2004

FIGURE **3.6-1**

Fire Station Locations

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The University Police Department Patrol Operations Division provides 24-hour patrol of University property, buildings, parking lots and residence halls. All laws and codes of the state and the United States are enforced on the campus, including regulations the University establishes to administer the campus community. The Special Services Division includes an investigations unit, several law enforcement training programs, Livescan services, a Rape Aggression Defense Program (RAD), and crime prevention programs and seminars. Campus crime prevention and security programs include Auto Theft and Burglary Prevention, Bicycle Theft Prevention, Evening Escort Program, Sobriety Checkpoints and Drug/Alcohol Awareness. Campus emergency "blue light" phones are provided throughout the campus and provide a direct connection to campus police department dispatchers.

The University Police Department is currently operating below the University's recommended ratio of one officer per 1,000 enrolled students. The department's 26 sworn officers currently serve a total student population of 33,000. Currently, Priority 1 calls, or those considered most critical, requiring officers to immediately clear all calls and/or investigations and respond, are responded to within two minutes. Priority 2 calls, defined as urgent calls for service that take precedence over general/non-emergency calls, are responded to within four minutes. Priority 3 calls, which are general calls for service, are responded to within 10 minutes. While the University does not have specified target response times, the University considers the above response times adequate. During the period of January 1, 2005 through June 30, 2005, the department received 3,234 calls for service. Typical calls on the CSUN campus include criminal complaints, medical calls, lost and found, unsecured property, security concerns, suspicious persons, disturbances, lockouts, smell of smoke, intrusion and fire alarms, hazardous situations, missing persons, and suspicious circumstances.[5]

Los Angeles Police Department

Off-campus police protection services and on-campus calls for felony offenses are provided by the LAPD. The CSUN University Police Department has a Memorandum of Agreement (MOA) with the LAPD for mutual aid, jurisdictional issues, and any other relevant mutual assistance. According to the University Police Department, this is a satisfactory working relationship.[6]

The Devonshire Area Community Police Station provides service to the CSUN campus. The station is located at 10250 Etiwanda Avenue in Northridge. Currently, 211 sworn officers are on staff at the Devonshire Area Community Station. This represents a population-to-officer ratio of 875 to one and is considered adequate for the area. The station is equipped with patrol vehicles, motorcycles, helicopters,

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5 Written correspondence with Anne Glavin, Chief of Police, California State University, Northridge, September 1, 2005.

6 Ibid.

and K-9 teams. The amount and type of equipment at the station are also considered adequate to serve the needs of the community.[7]

The department has a set goal for response times for emergency calls, termed the Median Response Time to citizen, of 7 minutes or less. The current Median Response Time to citizen is 8.2 minutes. While the current Median Response Time to citizen is considered adequate, the department is striving to attain the goal of a seven minutes or less response time to emergency calls for service.[8]

The Devonshire Area Community Police Station receives a variety of calls for service from the CSUN campus and no single type of incident is prevalent. As an example, during the period of September 1, 2005 through October 1, 2005, the station received six calls for service, which included assault with a deadly weapon, vandalism, disorderly conduct, false impersonation, battery, and possession of a controlled substance.

Disaster Preparedness and Emergency Plans

State Emergency Response/Evacuations Plans

After the 1993 Oakland fire, the State of California passed legislation authorizing the State's Office of Emergency Services to prepare a Standard Emergency Management System (SEMS) program which sets forth measures by which a jurisdiction handles emergency disasters. By December 1996, each jurisdiction was required to show the Office of Emergency Services that it is in compliance with SEMS through a number of measures, including having an up-to-date emergency management plan, which would include an emergency evacuation plan. Non-compliance with SEMS can result in the state withholding disaster relief from the non-complying jurisdiction in the event of an emergency.

The Governor's Office of Emergency Services coordinates an emergency organizational network of local Emergency Operations Centers (EOCs) in the state's cities, regional EOCs within each county, and the Governor's Office of Emergency Services. The regional office of the Governor's Office of Emergency Services is located in Los Alamitos, and the closest EOC is on the CSUN campus within the Physical Plant Management Building near the intersection of Plummer Street and Darby Avenue. The County Office of Emergency Management has prepared the County's Multi-Hazard Functional Plan, which details the coordination of County agencies during and after a catastrophic event and establishes the framework for the mutual aid agreements with the CHP, and federal, state, and other local governments in the region. It

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7 Written correspondence, Captain James H. Cansler, Commanding Officer, Planning and Research Division, LAPD, October 5, 2005.

8 Ibid.

also serves as the emergency management plan (including emergency evacuation plan) for the entire County. The Los Angeles County Board of Supervisors adopted a revised plan on February 17, 1998.

Funding for the Office of Emergency Services comes primarily from the State General Fund, while other funding may come from the Federal Government's Federal Emergency Management Act (FEMA) and other sources. Funding is used in two ways: for public assistance in the event of a disaster, and for hazard mitigation to avert a potential disaster.

Campus Emergency Procedures

Each California State University (CSU) campus is required to implement and maintain an emergency management system program on campus. At CSUN, the Department of Public Safety has a full-time Emergency Preparedness Coordinator who is responsible for development of action plans for campus-wide response to emergencies, provision of training in emergency response skills, SEMS compliance, plan reviews and updates, and periodic plan testing.

The CSUN Emergency Operations Plan provides specific guidelines on notifications, mobilization of the Crisis Action Team and possible activation of the EOC. The Campus Closure Integrated Communication Protocol supplements the Emergency Operations Plan and provides detailed guidelines for communication with members of the campus community when classes are cancelled or the campus is closed due to an emergency or other unforeseen circumstance. In the event of an emergency, the Crisis Action Team manages and coordinates the initial response and consists of the President, Provost and VP of Academic Affairs, VP of Administration and Finance, VP of Student Affairs, VP of University Advancement, Chief of Police, Public Relations Director and Associate VP of Academic Resources, President's Chief of Staff or their designees. The EOC is located in the Physical Plant Management complex. The activation of the EOC is at the discretion of the Crisis Action Team and is usually triggered by the need for emergency response beyond CSUN capabilities, an emergency of long duration, where major policy decisions must or may be required, declaration of a local or state emergency, or for contribution to successful emergency management. In emergencies that require EOC activation, the California Standardized Emergency Management System is utilized.

In 2003, approximately 50 top campus administrators underwent two days of specialized training on campus emergency procedures, including operating the EOC. After the training was completed, the campus Department of Public Safety made recommendations for improving safety and organization in times of emergency. Those recommendations are posted on the department website.

The CSUN Department of Environmental Health and Safety has developed campus emergency procedures for building evacuation, criminal or violent behavior, earthquake preparedness and

procedures, fire, explosion or similar incident, medical and first aid treatment, bomb threat, civil disturbance, assisting persons with disabilities, emergency signals and reporting, and hazardous materials spill/release.

In 2003, the CSUN Department of Public Safety University Police Division implemented the Incident Command Post System. This campus-wide system provides an Incident Command structure for emergency personnel response to critical incidents on campus such as fire and hazards. A bright orange cone with an affixed sign indicates an Incident Command Post. All first responders to an incident recognize the orange cone as the symbol indicating the area in which to gather for emergency response management.

Los Angeles Police Department Emergency Operations Guide

The LAPD Emergency Operations Guide (EOG) contains all department emergency and disaster response procedures. The Devonshire Area Community Police Station is aware of and capable of performing assigned duties in accordance with the EOG.[9]

3.6.4 REGULATORY SETTING

Fire Protection

California State Office of the Fire Marshall

The California State Fire Marshall is responsible for review and approval of all capital construction projects on CSU campuses and other educational institutions, including renovations and new construction. Review is conducted to verify compliance with California Code of Regulations Title 19; Title 24, Part 9, California Fire Code; and Title 24, Part 2, California Building Code (CBC). Facility construction documents are required to be submitted to the office for approval and granting of final occupancy.

City of Los Angeles General Plan Fire Protection and Prevention Plan

The Fire Protection and Prevention Plan, an Element of the City of Los Angeles General Plan, and the Fire Code section of the Los Angeles Municipal Code serve as guidelines for the construction, maintenance, and operation of fire protection facilities located within the City of Los Angeles. Policies and programs

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9 Ibid.

addressed in these documents include required fire flow, fire hydrant standards and locations, access provisions, and emergency ambulance service.[10]

The City of Los Angeles Fire Code specifies maximum response distances allowed between a specific land use and truck companies, which is also based upon fire flow requirements. For high-density residential and neighborhood commercial uses, the Fire Code indicates a maximum response distance of 1.5 miles to the nearest engine and truck company. The fire flow requirement for the CSUN campus is 9,000 gallons per minute (gpm). Based on this required fire flow, the nearest engine company should be within 1 mile of the campus and the nearest truck company should be within 1.5 miles. As stated above, Fire Station No. 103, a single-engine company, is located 0.5 mile from the campus, and Fire Station No. 70, a truck company, is located 1.5 miles from the campus.

In addition, the availability of sufficient on-site water pressure is a basic requirement of the LAFD. Fire flow is normally measured in gpm and defined as the quantity of water available or needed for fire protection. The LAFD fire flow requirements vary from 2,000 gpm from three adjacent fire hydrants flowing simultaneously in low-density residential areas to 12,000 gpm in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (psi) is to remain in the water system while the required gpm is flowing in order to be considered adequate by Fire Code Standards.[11]

Fire hydrants and building fire water service systems connect directly to local water mains. Water for fire flow is provided to the project site by existing Los Angeles Department of Water and Power (DWP) water mains under the adjacent roadways. According to the Fire Code, all first-story portions of proposed structures are required to be located within 300 feet of an approved fire hydrant.[12] Fire hydrant type and spacing is dependent on land use. The CSUN campus is considered an Industrial and Commercial land use by the LAFD, and fire service systems in such areas must be connected to double hydrants measuring 2.5 inches by 4 inches or 4 inches by 4 inches, located a maximum distance of 300 feet apart.[13] The net land area served by each hydrant is limited to approximately 80,000 square feet for commercial uses.[14] However, specific fire hydrant requirements are determined during plot plan review.

The CSUN campus is not within a Mountain Fire District, a very high Fire Hazard Severity Zone, or a Fire Buffer Zone.

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10 The City of Los Angeles General Plan, Fire Protection and Prevention Plan, adopted January 1979.

11 Written correspondence, Alfred B. Hernandez, Assistant Fire Marshall, Bureau of Fire Prevention and Public Safety, City of Los Angeles, December 28, 2004.

12 Los Angeles Municipal Code, Section 57.09.06.

13 Ibid.

14 Ibid.

Police Protection

California State Penal Code

All law enforcement agencies within the State of California are organized and operate in accordance with the applicable provisions of the California Penal Code. This code sets forth the authority, rules of conduct, and training for peace officers. Under state law, all sworn municipal and county officers are State Peace Officers.

California State University Police Department

The CSU Police Department has regulatory authority over all campus police departments. This authority includes regulation over campus police department staff training, equipment, policies and procedures. As stated previously, the CSU Police Department has ultimate review authority over the 2035 CSUN Master Plan.

County of Los Angeles Mutual Aid Agreement

The County of Los Angeles is required by state law to organize a formal mutual aid agreement between all police departments within its jurisdiction. This agreement is set forth in the Mutual Aid Operations Plan for Los Angeles County. The Mutual Aid Operations Plan provides a structure of response should an emergency in Los Angeles arise that requires immediate response by more law enforcement personnel than would be available to the LAPD using all available resources.

City of Los Angeles Crime Prevention Program

The City of Los Angeles has adopted a program to help crime prevention through environmental design called Design Out Crime. The Design Out Crime program introduces ways to deter crime by changing the design of buildings and public spaces. It involves simple, preventative steps that developers, architects, and individuals can take to reduce crime in their homes, businesses, and neighborhoods. The Design Out Crime program is an inter-agency program with a task force led by the City Planning Department and the Police Department.

3.6.5 SIGNIFICANCE CRITERIA

Fire Protection

According to the City of Los Angeles *CEQA Thresholds Guide*, a significant impact on fire protection services would occur if:

PUB-1: The project would result in inadequate emergency access or access to nearby uses;

PUB-2: The project would involve increased fire hazard in areas with flammable brush, grass, or trees; and/or

PUB-3: The project would have an effect upon, or result in a need for, new or altered government services in the area of fire protection.

Police Protection

According to the City of Los Angeles *CEQA Thresholds Guide*, a significant impact on police protection services would occur if the project would have an effect upon, or result in a need for, new or altered government services in the area of police protection. The determination of significance is determined by considering the following:

PUB-4: The population increase resulting from the proposed project, based on the net increase of residential units or square footage of non-residential floor area;

PUB-5: The demand for police services anticipated at the time of project buildout compared to the expected level of service available. As applicable, scheduled improvements to LAPD services (facilities, equipment and officers) and the project's proportional contribution to the demand are considered; and

PUB-6: Whether the project includes security and/or design features that would reduce the demand for police services.

3.6.6 ENVIRONMENTAL IMPACTS

Fire Protection

Program-Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next 30 years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents (FTEs) over the next 30 years, as well as accommodate the evolving pedagogical needs of the University's academic, administrative, student support, and campus support department and programs.

PUB-1: Would the project result in inadequate emergency access or access to nearby uses?

Construction of individual development projects as part of the Master Plan would increase traffic both on and adjacent to the campus during typical weekday working hours as commuting construction workers, trucks, and other large construction vehicles would be added to normal traffic. Slow-moving, construction-related traffic on campus and surrounding roadways, as well as temporary construction-related obstruction of roadways, may temporarily reduce optimal traffic flows on those roadways and could conceivably delay emergency vehicles traveling through the area. This potential is considered minor given the periodic nature of construction traffic and the short-term duration of construction, and CSUN requires its contractors to employ standard construction site precautions to safeguard against disruption of traffic or other ongoing activities on and around campus. Construction impacts on emergency access would be less than significant.

The CSUN campus currently has through-roads that provide for adequate vehicle circulation, including service and emergency vehicles. Service and emergency access to the site and circulation within the campus following Master Plan buildout would typically follow the same routes as general traffic, with few exceptions. Although some campus points of entry and exit would be redesigned, the improvements are intended to improve circulation around and within campus and would not impede emergency and service vehicle access, and some roadways would be designated specifically for service and emergency vehicles. Operational impacts on emergency access would be less than significant.

As individual Master Plan development projects are implemented over the 30-year Master Plan timeline, the CSUN Emergency Preparedness Coordinator would revise the campus Emergency Operations Plan consistent with SEMS, coordinate with the Crisis Action Team and all relevant government offices including but not limited to OES, LAFD, LAPD and FEMA, to assure that the campus is adequately

prepared in the event of an emergency. For this reason, operational impacts associated with emergency preparedness would be less than significant.

PUB-2: Would the project involve increased fire hazard in areas with flammable brush, grass, or trees?

Construction activities associated with implementation of the CSUN Master Plan would occur in a variety of locations on the campus over a period of 30 years. During construction, large amounts of wood framing would occur on portions of the campus. In association with the framing operations, electrical, plumbing, communications, and ventilation systems are installed in each structure. However, the risk of fire is considered minimal, and the project site is the developed campus. Project construction would not increase fire hazards in flammable areas and impacts would be less than significant.

Specific fire and life safety requirements for new development on campus would be addressed at the time each new building's fire plan is reviewed, and additional fire and life safety requirements may be required during that time. Required adherence to all applicable codes and requirements during project operations would reduce the potential for increased fire hazards to a less than significant level.

PUB-3: Would the project have an effect upon, or result in a need for, new or altered government services in the area of fire protection?

Existing fire protection services for the CSUN campus are considered adequate, and construction associated with buildout of the Master Plan would not substantially increase demand for those services. Master Plan buildout construction impacts on fire protection services would, therefore, be less than significant.

With respect to operations, the LAFD works with the City of Los Angeles to review plans for new development. LAFD areas of concern for new development include adequate access, proper fire flow, hydrant locations, and overall site plan layout. In addition, the State Fire Marshal maintains ultimate review and approval authority over aspects of the proposed Master Plan that relate to fire protection, and may identify further recommendations and/or requirements. Operations resulting from Master Plan buildout are expected to result in an increase in the number of required building plan-check reviews and building inspections, as well as ongoing public education activities, participation in community events, and communication with the campus Departments of Public Safety and Environmental Health and Services.

The current fire protection water system is shown in **Figure 3.6-2, Existing Fire Water System**. This system is currently compliant with all applicable state and local codes and ordinances, and guidelines stated in the *Fire Protection and Fire Prevention Plan Element* and the *Safety Element*, both of which are

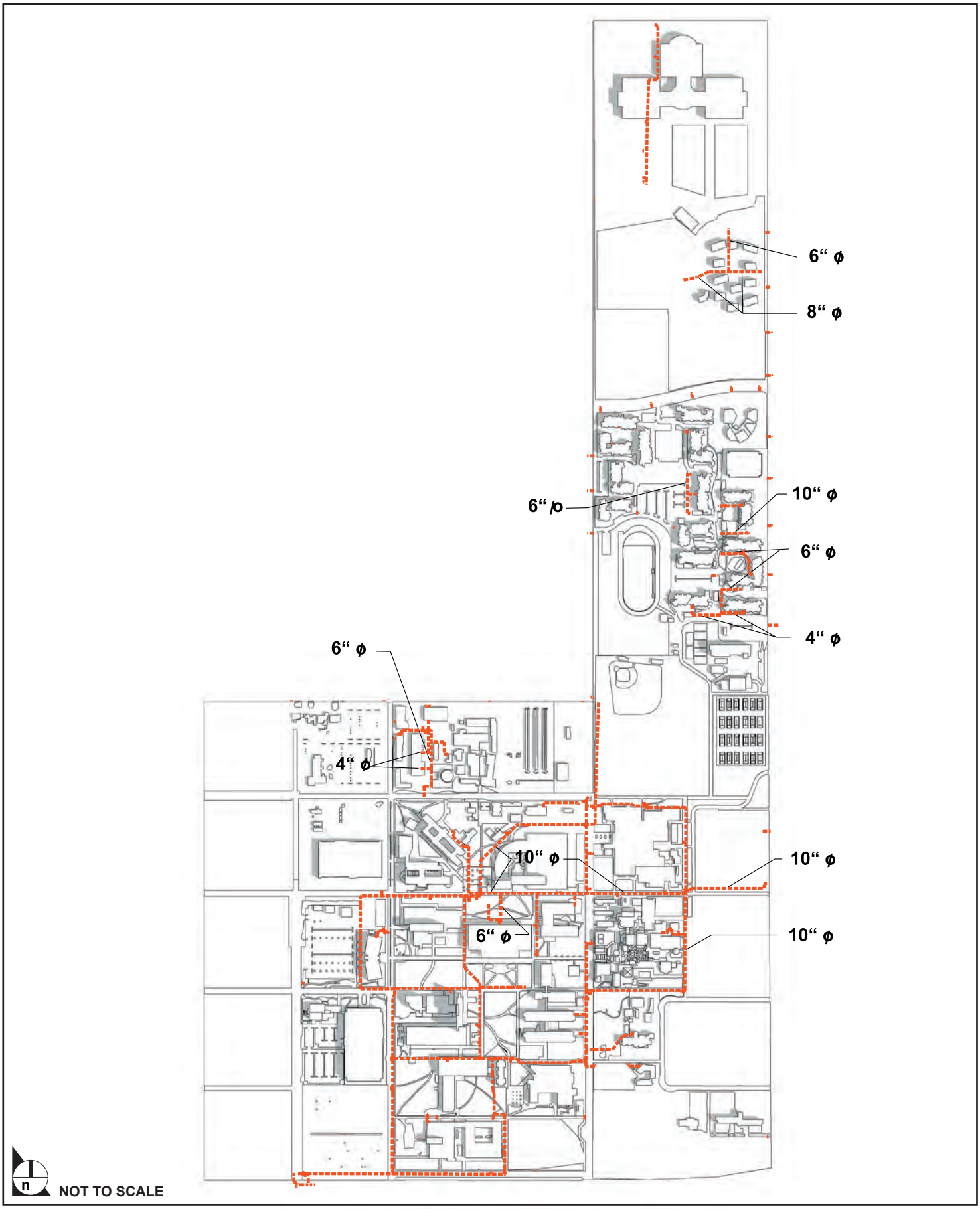
elements of the *General Plan of the City of Los Angeles*. As individual buildings are developed on campus, building plans would expand on the current water system to provide new buildings with adequate water supply. Individual development projects would also be required to comply with applicable fire and life safety standards and code requirements such as fire hydrant flows, hydrant spacing, adequate fire land turning-radius, access, and design to comply with LAFD's fire protection requirements. In addition, individual development projects on campus would comply with standard design requirements in accordance with the CBC, which include fire sprinklers and fire alarm devices. New building construction would also be required to install backflow preventers, post indicator valves, and LAFD connections for new building sprinkler systems. Since the campus boundaries would not change with implementation of the CSUN Master Plan, the proposed project would remain in compliance with the City of Los Angeles Fire Code specified maximum response distances between land uses and the nearest fire station. Impacts on fire protection services resulting from Master Plan implementation would be reduced by the above-stated measures and through required compliance with applicable fire and life safety codes, standards, and guidelines. Impacts would be less than significant.

Near-Term Project-Level Analysis

As stated in **Section 2.0**, **Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Hub, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, the Science 5 facility, and 250 faculty/staff housing units. Phase 2 development projects include Parking Structure G6, Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities, the Student Recreation Center, and 100 faculty/staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

PUB-1: Would the project result in inadequate emergency access or access to nearby uses?

As shown in **Figure 2.0-17**, **Master Plan Phase 1**, and **Figure 2.0-18, Master Plan Phase 2**, construction of these development projects would occur at various locations on campus over a 10-year period. Construction of these near-term projects would result in the same potentially significant impacts on emergency access as buildout of the Master Plan. As stated therein, the potential for construction-related interference with emergency access is considered minor, given the periodic nature of construction traffic and the short-term duration of construction, and standard construction site precautions would be employed to safeguard against disruption of traffic or other ongoing activities on and around campus. Impacts would be less than significant.



SOURCE: California State University Northridge Master Plan – September 2005

FIGURE **3.6-2**

Existing Fire Water System

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With respect to operations, the CSUN campus currently has through-roads that provide for adequate vehicle circulation, including service and emergency vehicles. Service and emergency access to the site and circulation within the campus during Master Plan buildout would typically follow the same routes as general traffic, with few exceptions. Additional access points would be available for service and emergency vehicles. Service and emergency vehicles would also be able to use internal roadways designated for this purpose by the Master Plan. Near-term project operation impacts on emergency access would be less than significant.

As the near-term Master Plan projects are implemented, the CSUN Emergency Preparedness Coordinator would revise the campus Emergency Operations Plan consistent with SEMS, coordinate with the Crisis Action Team and all relevant government offices including but not limited to OES, LAFD, LAPD, and FEMA, to assure that the campus is adequately prepared in the event of an emergency. For this reason, near-term project operation impacts associated with emergency preparedness would be less than significant.

PUB-2: Would the project involve increased fire hazard in areas with flammable brush, grass, or trees?

Implementation of the near-term Master Plan Phase 1 and Phase 2 projects, including the Valley Performing Arts Center, would not result in increased fire hazards in areas with flammable brush, grass, or trees, since the CSUN campus is located in a suburban area. Construction and operational impacts related to increased fire hazards would be less than significant.

PUB-3: Would the project have an effect upon, or result in a need for, new or altered government services in the area of fire protection?

Existing fire protection services for the CSUN campus are considered adequate, and construction of the near-term Master Plan projects would not substantially increase demand for those services. Near-term project construction impacts on fire protection services would, therefore, be less than significant.

With respect to operations, the LAFD would review plans for new development to ensure adequate access, proper fire flow, and hydrant locations, and to review overall site plan layout. In addition, the State Fire Marshal maintains ultimate review and approval authority over aspects of the proposed Master Plan that relate to fire protection, and may identify further recommendations and/or requirements. Individual development projects would also be required to comply with applicable fire and life safety standards and code requirements, such as fire hydrant flows, hydrant spacing, adequate fire land turning-radius, access, and design to comply with LAFD's fire protection requirements, as well as standard design requirements in accordance with the CBC, which include fire sprinklers and fire alarm devices.

As is the case for operations associated with full Master Plan buildout, impacts on fire protection services resulting from operation of near-term Master Plan projects would be reduced to less than significant levels through required compliance with applicable fire and life safety codes, standards, and guidelines.

Police Protection

Program-Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next 30 years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents (FTEs) over the next 30 years, as well as accommodate the evolving pedagogical needs of the University's academic, administrative, student support, and campus support department and programs.

PUB-4: What is the population increase resulting from the proposed project, based on the net increase of residential units or square footage of non-residential floor area?

The 2005 CSUN Master Plan is intended to accommodate an additional 10,000 FTEs and 1,320 faculty/staff members. As part of the Master Plan, 2,688 student beds and 600 faculty/staff dwelling units would be provided. This represents a campus residential population increase of 4,688, assuming 2.5 persons per faculty/staff dwelling unit. The University Police Department currently provides police protection services to the campus. University Police Department staff rations are currently below the recommended ratio of one officer per 1,000 students, and staffing and equipment are, therefore, not sufficient to serve the growth associated with the proposed Master Plan. However, as this increase in the campus residential population is planned, the department would continually reassess the need for additional staff and equipment and acquire those resources accordingly, so that service to the campus remains adequate. Impacts on the University Police Department would be less than significant. Moreover, since the University Police Department has primary jurisdiction over the University campus, on-campus residential population growth would have a less than significant impact on LAPD police protection services.

PUB-5: Would the project increase demand for police services at the time of project buildout compared to the expected level of service available, taking into account scheduled improvements to LAPD services (facilities, equipment and officers) and the project's proportional contribution to the demand are considered?

Construction activities associated with implementation of the CSUN Master Plan would occur in a variety of locations on the campus over a period of 30 years. Anticipated crime and safety issues during

construction include theft of building materials and construction equipment, malicious mischief, graffiti, and general vandalism. Such activities at a construction site are not unusual, but are only occasional and do not typically place undue demands on police protection services. During the construction phase of the project, response times for emergency and non-emergency calls are not expected to vary from those currently experienced on campus. Master Plan impacts during construction would be less than significant.

As stated above, current staffing and equipment are not sufficient to serve the growth associated with the proposed Master Plan. The University Police Department expects to receive the same type of calls for service as the Master Plan is implemented. However, additional staff and equipment would be required to handle the increased volume of calls for service. The public safety building currently under construction is intended to accommodate a growing University Police Department and will provide sufficient space for additional staff and equipment for many years.[15] As individual development projects occur on campus over the next 30 years, the department would continually reassess the need for additional staff and equipment and acquire those resources accordingly, so that service to the campus always remains adequate. As maintaining public safety is a crucial, CSU would provide sufficient funding to support the acquisition of additional staff and equipment, gradually, during Master Plan implementation. In addition, the University would maintain its strong relationship with LAPD in order to provide a safe environment both on campus and in the surrounding area. Based on the above information, operational impacts on police protection would be less than significant.

PUB-6: Does the project include security and/or design features that would reduce the demand for police services?

Since the University Police Department provides primary service to the campus, no additional security or design features would be required to reduce project demand on the LAPD. Impacts would be less than significant.

Near-Term Project-Level Analysis

As stated in **Section 2.0, Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Hub, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, and 250 faculty/staff housing units. Phase 2 development projects include Parking Structure G6; faculty offices and lecture hall; two lecture/laboratory facilities; the student recreation center; and 100 faculty/staff housing units. Projects

15 Ibid.

already evaluated at the program level in the 1998 Master Plan EIR and evaluated at the project level in this EIR include the Valley Performing Arts Center and the Science 5 facility.

PUB-4: What is the population increase resulting from the proposed project, based on the net increase of residential units or square footage of non-residential floor area?

A residential population increase of 877 students and 250 faculty/staff would result from Phase 1 and Phase 2 implementation, respectively. While it is difficult to predict the number of FTEs during implementation of the near-term projects, it can be conservatively assumed that the campus would enroll an additional 5,000 FTEs. As stated in the program level analysis, the University Police Department continually reassesses department resources and funding for additional staff and/or equipment would be provided by CSU as needed. Impacts on University Police Department services would be less than significant, and impacts on LAPD police protection services would also remain less than significant.

PUB-5: Would the project increase demand for police services at the time of project buildout compared to the expected level of service available, taking into account scheduled improvements to LAPD services (facilities, equipment and officers) and the project's proportional contribution to the demand are considered?

Potential crimes and safety issues during construction of the near-term analyzed projects include theft of building materials and construction equipment, malicious mischief, graffiti, and general vandalism. As stated in the program level discussion above, such activities at a construction site are not unusual, but are only occasional and do not typically place undue demands on police protection services. During the construction phase of each of the near-term projects, response times for emergency and non-emergency calls are not expected to vary from those currently experienced on campus. The University Police Department and LAPD currently have sufficient resources to adequately serve the growth associated with the near-term projects. Consistent with the program-level discussion above, the department continually assesses the need for additional resources. In the event that additional staff or equipment resources are deemed necessary during Phase 1, Phase 2, Valley Performing Arts Center, or Science Five Facility implementation, CSU would provide adequate funding to fill that need. Project-related increased demand for University Police Department and LAPD services would be less than significant.

PUB-6: Does the project include security and/or design features that would reduce the demand for police services?

Since the University Police Department provides primary service to the campus, no additional security or design features would be required to reduce project demand on the LAPD. Impacts on University Police Department and LAPD services would be less than significant.

3.6.7 MITIGATION MEASURES

Fire Protection

Program-Level Analysis

Implementation of the proposed 2005 CSUN Master Plan would not result in any significant impacts to fire protection services; therefore, no mitigation is required.

Near-Term Project-Level Analysis

Implementation of the proposed near-term Master Plan projects would not result in any significant impacts to fire protection services; therefore, no mitigation is required.

Police Protection

Program Level Analysis

Implementation of the proposed 2005 CSUN Master Plan would not result in any significant impacts to police protection services; therefore, no mitigation is required.

Near-Term Project-Level Analysis

Implementation of the proposed near-term Master Plan projects would not result in any significant impacts to fire protection services; therefore, no mitigation is required.

3.6.8 CUMULATIVE IMPACTS

Fire Protection

A list of related development projects is provided in **Section 1.0, Executive Summary**. **Table 3.6-1, Related Projects and Associated Population Growth**, shows the expected population growth projected to occur as a result of the eight related projects. As shown, the related projects combined would result in a population increase of 3,053 in the project area.

Table 3.6-1
Related Projects and Associated Population Growth

Project	Location	Size	Population Generation Factor	Projected Population Growth
Shopping Center	19401 Business Center Dr.	59,000 sq. ft.	3 persons/ 1,000 sq. ft.	177
Convenience Store	18173 Chatsworth St.	2,000 sq. ft.	3 persons/ 1,000 sq. ft.	6
Light Industrial Building	8817 Amigo Ave.	28,000 sq. ft.	3 persons/ 1,000 sq. ft.	84
Target Store	8999 Balboa Blvd.	30,000 sq. ft.	3 persons/ 1,000 sq. ft.	90
Apartments and Retail	9423 Reseda Blvd.			
Apartments		202 d.u.	4 persons/unit	808
Retail		4,000 sq. ft.	3 persons/ 1,000 sq. ft.	12
Fast Food with Drive-Through	8800 Tampa Ave.	3,300 sq. ft.	3 persons/ 1,000 sq. ft.	9.9
Apartments and Retail	19401 Parthenia St.			
Apartments		312 d.u.	4 persons/unit	1248
Retail		43,000 sq. ft.	3 persons/ 1,000 sq. ft.	129
Discount Store	19350 Nordhoff Way	163,000 sq. ft.	3 persons/ 1,000 sq. ft.	489
Total Population Growth				**3,053**

Source: Impact Sciences, Inc., October 2005.
Population factors are provided in the City of Los Angeles CEQA Thresholds Guide.
sq. ft. = square feet; d.u. = dwelling unit

As capital construction projects proposed under the Master Plan are developed, each will be required to demonstrate compliance with applicable fire code and will be subject to review and approval by the Office of the California State Fire Marshall. Implementation of the Master Plan would not result in significant impacts on fire protection services, and is not expected to contribute to cumulatively considerable impacts.

Police Protection

The population growth associated with the related projects listed in **Table 3.6-1** would result in an increased demand for police protection services in the area. The related projects will be off-campus and, therefore, would be under the jurisdiction of LAPD. Each project would be required to comply with all relevant regulations and would be subject to LAPD review. As such, the related projects in conjunction

with the proposed Master Plan would not contribute to a cumulatively considerable impact on police protection.

Cumulative Mitigation Measures

As no impacts have been identified, no mitigation measures are recommended.

3.6.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

No unavoidable significant impacts would occur.

3.7 RECREATION

3.7.1 INTRODUCTION

This section evaluates the potential impacts of the proposed 2005 Master Plan on parks and recreational facilities at California State University, Northridge (CSUN) and in the surrounding project area.

3.7.2 METHODOLOGY

This section was prepared by comparing recreational facilities and opportunities proposed under the 2005 Master Plan to existing facilities on the CSUN campus, and evaluating project components, such as housing, for their potential to increase demand on off-site recreational resources.

3.7.3 EXISTING CONDITIONS

The current student enrollment at CSUN is approaching 25,000 full-time equivalent (FTE) students and employs approximately 3,300 faculty and staff. The demand for recreational facilities generated by students, faculty, and staff is primarily met by the University's existing recreational facilities, which occupy approximately 40 acres, or nearly 9 percent, of the 356-acre CSUN campus. The present ratio of recreational space to campus student population is 1.6 acres per 1,000 FTEs. Students, faculty, and staff may also use the public recreational facilities in the community of Northridge when not on campus.

The majority of the University's facilities devoted to recreational and athletic instructional activities are concentrated in the eastern half of the campus, adjacent to the University Student Union, Kinesiology and Housing facilities, as shown in **Figure 2.0-3, Existing Campus,** in **Section 2.0, Project Description,** of this EIR. The University presently has the following recreational and athletic facilities:

- An athletic field in the northern portion of the campus, just south of the Medtronic/MiniMed facility;
- A track & field area;
- Two soccer fields;
- Baseball and softball diamonds;
- Two open field spaces;
- Tennis courts;
- An intercollegiate athletics office;
- Racquetball courts;
- A golf facility;

- A swimming pool;
- A fitness center within the University Student Union;
- Basketball courts;
- Two weight-training centers; and
- Activity gyms within the Kinesiology Building (Redwood Hall).

Immediately surrounding CSUN, the City of Los Angeles Department of Recreation and Parks owns and operates several recreational facilities. These facilities, together with their respective addresses, relative proximity to CSUN, acreage, and recreational amenities, are listed in **Table 3.7-1**, below.

Table 3.7-1
Parks within Proximity to CSUN

Park/Recreational Facility	Address	Approx. Distance to CSUN	Acres	Recreational Amenities
Dearborn Neighborhood Park[1]	17141 Nordoff St. Northridge, CA 91330	1.1 miles	9 acres	Basketball Courts (lighted/ outdoor) Children's Play Area Picnic Tables Tennis Courts (lighted)
Vanalden Neighborhood Park[2]	8956 Vanalden Ave. Northridge, CA 91324	1.4 miles	10 acres	Basketball Courts (lighted/ outdoor) Children's Play Area Picnic Tables Tennis Courts (lighted)
Northridge Community Park and Recreation Center[3]	18200 Lemarsh St. Northridge, CA 91325	2.1 miles	24 acres	Auditorium Barbecue Pits Baseball Diamond (lighted) Basketball Courts (lighted/ indoor and outdoor) Children's Play Area Community Room Indoor Gym (without weights) Picnic Tables Seasonal Pool (outdoor/heated) Soccer Field (lighted) Tennis Courts (lighted)
Sepulveda Dam Recreation Area[4]	17017 Burbank Blvd. Encino, CA 91316	6.0 miles	2,031 acres	Archery Range Bike Path Cricket Fields Model Airplane Field Off-leash Dog Area Wildlife Refuge

Sources:
[1] *http://www.laparks.org/dos/parks/facility/dearbornPk.htm*
[2] *http://www.laparks.org/search_engine.htm?searchbox=vanalden*
[3] *http://www.laparks.org/dos/reccenter/facility/northridgeRC.htm*
[4] *http://www.laparks.org/dos/reccenter/facility/sepulvedaBasinRC.htm*

3.7.4 REGULATORY SETTING

City of Los Angeles General Plan Public Recreation and Open Space Element

The Los Angeles Department of Recreation and Parks is responsible for operating and maintaining parks throughout the City of Los Angeles. The Public Recreation Plan and the Open Space Element of the City's General Plan govern park, recreational facility, and open space planning and development. The Northridge Community Plan classifies public parks within the plan area according to the following three types: regional, community, and neighborhood. There are no regional parks in Northridge. According to the Northridge Community Plan, in order to accommodate adequate recreation and park facilities that meet the needs of the residents, the community has adopted the following objectives applicable to recreational and park land within the plan area:

- Objective 4-1: To conserve, maintain and better utilize existing recreation and park facilities which promote the recreational experiences.
- Objective 4-2: To provide facilities for specialized recreational needs within the community, with consideration given to utilizing existing public lands such as flood control channels, utility easements, or Department of Water and Power property.
- Objective 4-3: To acquire and develop properties as mini-parks where it is not possible to acquire sufficient acreage for neighborhood parks.
- Objective 4-4: To expand and improve local parks throughout the Plan area, as funds and land become available.
- Objective 4-5: To ensure the accessibility, security and safety of parks by their users, particularly families with children and senior citizens.

In addition to the above objectives for recreation and parkland, the following objective was adopted by the Northridge community related to open space:

- Objective 5-1: To preserve existing open space resources and, where possible, develop new open space.

3.7.5 SIGNIFICANCE CRITERIA

Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* states that a proposed project may have a potentially significant impact relative to recreation and recreational facilities.

REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

REC-2: Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The City of Los Angeles Draft *CEQA Thresholds Guide* further provides that a proposed project may have a significant impact on recreation and recreational facilities if the project would:

REC-3: Would the project affect existing recreational opportunities?

3.7.6 ENVIRONMENTAL IMPACTS

Program-Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next 30 years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 FTEs over the next 30 years, as well as accommodate the evolving pedagogical needs of the University's academic, administrative, student support, and campus support department and programs.

REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

REC-2: Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

REC-3: Would the project affect existing recreational opportunities?

Implementation of the proposed 2005 Master Plan is intended to accommodate the additional 10,000 FTEs projected to enroll at CSUN by 2035, the year of Master Plan buildout. At that time, the on-campus population would be 35,000 FTEs. The increased student population would likewise increase demand for campus athletic and recreational facilities.

The 2005 Master Plan proposes a total of 46 acres of playfields, representing a 6-acre increase over existing playfield acreage. Because of the projected 40 percent increase of on-campus FTE population by 2035, the ratio of athletic facility acreage to student population would decrease from 1.6 acres to 1.3 acres per 1,000 FTEs. However, no existing recreational facilities would be removed; instead, additional playfields and athletic facilities would be developed and existing open space would be enhanced.

Under the 2005 Master Plan, a majority of the existing playfields and athletic facilities currently located in the Instructional/Athletics/Recreation Precinct, on the east side of campus, would remain unchanged. The existing track, baseball, softball, and soccer fields and the racquetball courts would not be altered by the Master Plan. However, within the Master Plan's Instructional/Athletics/Recreation Precinct, the existing tennis courts would be relocated to a site just south of the track. In addition, a small building would be constructed to provide space for restroom facilities, storage and concession operations and other support needed for outdoor facilities and events.

In addition to the proposed changes in the Instructional/Athletics/Recreation Precinct, the Master Plan proposes athletic and recreational facilities in other campus precincts. One large playfield is proposed in the North Campus Faculty/Staff Housing Precinct; two large playfields are proposed within the East Gateway Precinct; and a new Student Recreation Center is proposed in the East Gateway Precinct. Construction of these new facilities accounts for the 6 acres of recreational space that would be added to the CSUN campus under the 2005 Master Plan.

The Master Plan also proposes to enhance existing open space and create more "usable" outdoor areas throughout the campus. The campus's present "primary" open spaces would be retained and enhanced through the introduction of landscaping, hardscape improvements, and furnishings such as seating and lighting to reinforce their programmed uses. The Master Plan also proposes to create new "secondary" open space areas such as courtyards, quadrangles, and plazas through new building placement, landscaping, and hardscape improvements. These areas are intended to create links within the academic core and to campus housing and parking facilities.

The Master Plan proposes to develop on-campus housing communities to accommodate approximately 2,688 student beds. Each of the proposed housing communities would include landscaped open space immediately surrounding the residential facilities that could accommodate passive recreational activities.

The Master Plan also proposes to build up to 600 dwelling units for faculty and staff on University property north of Lassen Street. The final number and configuration of units will be determined by the University at the time of development. The faculty/staff housing community may include dedicated open space for use by residents.

Master Plan implementation would accommodate the projected enrollment increase of 10,000 FTEs and increase the residential population of the Northridge community through the construction of faculty/staff housing, both of which would increase campus-related demand for recreational resources. However, this demand would be met by existing campus facilities as well as through the proposed enhancement of athletic and recreational facilities in the Instructional/Athletics/Recreation Precinct,

construction of additional athletic and recreational facilities elsewhere on campus, open space enhancements, and the provision of passive and active recreational facilities as part of new student housing and, possibly, faculty/staff housing.

Project implementation is not expected to increase the use of neighborhood or regional parks or other recreational facilities in the project area; require the construction or expansion of recreational facilities that might have an adverse effect on the environment; or otherwise adversely affect existing recreational opportunities. Use of off-campus recreational resources by the additional students and resident faculty and staff would be nominal.

Project impacts on recreational resources would, therefore, be less than significant. Moreover, insofar as public access to new University athletic and recreational facilities is provided, the 2005 Master Plan would have a beneficial impact on the availability of recreational resources in the project area.

Near-Term Project-Level Analysis

As stated in **Section 2.0**, **Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Hub, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, the Science 5 facility, and 250 Faculty/Staff housing units. Phase 2 development projects include Parking Structure G6, Faculty Offices and Lecture Hall, two Lecture/Laboratory facilities; the Student Recreation Center, and 100 Faculty/Staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

REC-2: Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

REC-3: Would the project affect existing recreational opportunities?

The proposed Student Recreation Center would be a 120,000-square-foot facility with a gymnasium with multiple indoor courts for basketball and other court sports, an indoor jogging track, a fitness center with weight training and cardiovascular training equipment, and other facilities. This would increase recreational and athletic instructional opportunities on campus in proximity to existing recreational and

athletic instructional facilities and would have a beneficial, and, therefore, less than significant impact on recreational opportunities.

Several of the near-term projects proposed under the Master Plan would enhance usable open space on campus. The Valley Performing Arts Center would include an outdoor public gathering space at its location on Nordhoff Street in the South Campus Arts Precinct. Moreover, the planned University Park Student Housing Expansion and Faculty/Staff Housing could introduce common areas that would serve to increase usable, landscaped open space on campus. Impacts on recreational opportunities would be beneficial and, therefore, less than significant.

The remaining near-term Master Plan projects would have no impact on recreational opportunities on campus or off site.

3.7.7 MITIGATION MEASURES

Program-Level Analysis

Implementation of the proposed 2005 CSUN Master Plan would not result in any significant impacts; therefore, no mitigation to reduce impacts to less than significant levels is required.

Near-Term Project-Level Analysis

Implementation of the proposed near-term Master Plan projects would not result in any significant impacts; therefore, no mitigation to reduce impacts to less than significant levels is required.

3.7.8 CUMULATIVE IMPACTS

The proposed project could result in a nominal, incremental increase in demand for recreational facilities and opportunities in the Northridge community. The proposed increase in students, faculty, and staff at CSUN associated with the increased enrollment cap, combined with introduction of the proposed faculty/staff housing community, could increase demand for, and use of, existing recreational facilities in Northridge. However, the additional recreational demand generated by the proposed Master Plan would largely be accommodated by the existing and proposed new athletic and recreational facilities on the CSUN campus. Therefore, implementation of the 2005 CSUN Master Plan would result in a less than significant contribution to a cumulatively considerable increase in demand for the Northridge community's existing recreational facilities.

3.7.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

Implementation of the proposed 2005 CSUN Master Plan would result in less than significant impacts and no mitigation is required. Therefore, impacts associated would remain less than significant.

3.8 TRANSPORTATION/TRAFFIC

3.8.1 INTRODUCTION

This section presents an overview of the existing traffic and access characteristics in the Northridge area and discusses the potential impacts associated with implementation of the Envision 2035, California State University, Northridge (CSUN) Master Plan. In addition, a discussion of the cumulative impacts of the CSUN Master Plan in conjunction with other related projects is provided. The information and analysis presented in this section of the EIR is based on the traffic impact study prepared for the project by Kaku Associates, Inc. in September 2005. Refer to **Appendix D** of this EIR for a copy of the study.

3.8.2 METHODOLOGY

Traffic conditions for the areas surrounding the CSUN campus were evaluated in the traffic study for the existing year (2005) and for full Master Plan buildout (2035). Forty-six local intersections and eight neighborhood street segments were analyzed for each scenario. Available traffic count data was obtained from a variety of sources in order to quantify existing traffic conditions. Future year traffic volumes for the years 2015 and 2035 for all intersections analyzed and the local freeway system were derived from the Southern California Association of Governments (SCAG) regional transportation demand forecasting model.

Levels of Service

The traffic impact assessment methodologies identified in the latest version of the Transportation Research Board's *Highway Capacity Manual* (HCM 2000) were used to evaluate the signalized study intersections. The HCM 2000 methodology addresses the capacity, volume-to-capacity (V/C) ratio, level of service (LOS) of intersection approaches, and the LOS of the intersection as a whole. Capacity is defined as the maximum sustainable volume of vehicles which reasonably can be expected to pass through an intersection or roadway segment during one hour under given roadway, geometric, traffic, environmental, and control conditions. The V/C ratio is the ability to carry (the capacity) compared to the level of traffic during a peak period (volume). Traffic volumes can be obtained through a summation of the critical movement volumes at that intersection. Critical movement volumes are the highest combination of conflicting movements which must be accommodated at that intersection. LOS is a qualitative measure which describes operational conditions within a traffic stream in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Levels range from A to F with A representing excellent (free-flow) conditions and F representing extreme congestion, as described in **Table 3.8-1**, **Roadway Level of Service Criteria**. The measures of effectiveness for signalized intersections are assessed based on average control delay per

vehicle, critical V/C ratios, and LOS. The LOS is based on the average control delay for various intersection movements.

Table 3.8-1
Roadway Level of Service Criteria

Level of Service	Interpretation	Delay per Vehicle (seconds)
Signalized Intersections		
A	Very short delay, with extremely favorable progression. Most vehicles arrive during the green phase and do not stop at all.	≤ 10.0
B	Good progression, with more vehicles stopping than for LOS A, causing higher levels of average delay.	10.1–20.0
C	Light congestion, with individual cycle failures beginning to appear. Number of vehicles stopping is significant at this level.	20.1–35.0
D	Congestion is more noticeable, with longer delays resulting from combinations of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines.	35.1–55.0
E	Limit of acceptable delay. High delays result from poor progression, high cycle lengths, and high V/C ratios.	55.1–80.0
F	Unacceptable delays occurring, with over-saturation.	≥ 80.0
Unsignalized Intersections		
A	Very short delay, with extremely favorable progression. Most vehicles arrive during the green phase and do not stop at all.	≤ 5.0
B	Good progression, with more vehicles stopping than for LOS A, causing higher levels of average delay.	5.1–10.0
C	Light congestion, with individual cycle failures beginning to appear. Number of vehicles stopping is significant at this level.	10.1–20.0
D	Congestion is more noticeable, with longer delays resulting from combinations of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines.	20.1–30.0
E	Limit of acceptable delay. High delays result from poor progression, high cycle lengths, and high V/C ratios.	30.1–45.0
F	Unacceptable delays occurring, with over-saturation.	≥ 45.0

Source: Highway Capacity Manual, *2000.*
Note: For unsignalized intersections, the average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. In situations where the degree of saturation is greater than about 0.9, the amount of average total delay is also dependent on the length of the analysis period. Average total delay of less than 5 seconds per vehicle is defined as LOS A. Follow-up times of less than 5 seconds have been measured when there is no conflicting traffic for a minor street movement, so this range is appropriate. A total delay of 45 seconds per vehicle is assumed as the break point between LOS E and LOS F.

Average control delay is defined as the total time vehicles that are stopped in an intersection approach during a specified time interval divided by the volume departing from the approach during the same period. It does not include queue follow-up time (i.e., the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position). A V/C ratio less than 1.00 indicates that all movements at the intersection can be accommodated within the defined cycle length and phase sequence by proportionally allocating green time. In other words, the total available green time in the phase sequence is adequate to handle all movements, if properly allocated.

Unsignalized intersections are typically categorized as either two-way stop-controlled (TWSC) or all-way stop-controlled (AWSC) intersections. The performance measures for TWSC and AWSC intersections are control delay, delay to major street through vehicles, queue length, and V/C ratio. However, the LOS is primarily related to the average control delay, which is given in terms of seconds of delay per vehicle by minor movement and intersection approach. Control delay is the time required for initial deceleration, moving up in the queue, stopping, and final acceleration. The average control delay for any particular minor movement is a function of the capacity of the approach and the volume-to-capacity ratio. As shown in **Table 3.8-2**, below, there are specific LOS definitions for TWSC intersections.

Table 3.8-2
Level of Service Definitions for TWSC Intersections

Level of Service	Average Total Delay (seconds/vehicle)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: Highway Capacity Manual, 2000.

Table 3.8-3, below, shows the LOS definitions for freeway segments.

Table 3.8-3
LOS Definitions for Freeway Mainline Segments

LOS	Volume/Capacity Ratio
A	0.00 – 0.35
B	>0.35 – 0.54
C	>0.54 – 0.77
D	>0.77 – 0.93
E	>0.93 – 1.00
F (0)	>1.00 – 1.25
F (1)	>1.25 – 1.35
F (2)	>1.35 – 1.45
F (3)	>1.45

Source: Kaku Associates, Inc., September 2005.

3.8.3 EXISTING CONDITIONS

Regional Highway Network

Regional access to the CSUN campus is provided by Interstate 405 (I-405), State Route 118 (SR-118), and the Ventura Freeway (US-101). Interstate 405 is located approximately 3 miles to the east of the campus and runs north/south. SR-118 generally runs east/west and is approximately 2 miles north of the CSUN campus. The Ventura Freeway is located approximately 4.5 miles south of the campus and runs east/west in the San Fernando Valley vicinity. These highways can be accessed via the Foothill Freeway (I-210), Golden State Freeway (I-5), State Route 134 (SR-134), and State Route 170 (SR-170).

Local Roadway Network

The following roadways within the project vicinity are categorized as Major Highways Class II. Major Highway Class II roadways are those that have four full-time through lanes, two part-time parking lanes, and one median/left-turn lane.

- Nordhoff Street
- Zelzah Avenue from Nordhoff Street to Chatsworth Street
- Reseda Boulevard
- Devonshire Street
- Balboa Boulevard

- Rinaldi Street
- Woodley Avenue
- Tampa Avenue
- White Oak Avenue
- Roscoe Boulevard

The following roadways are classified as Secondary Highways. Secondary highways have four full-time through lanes, all-day parking and one median/left-turn lane.

- Lindley Avenue from Roscoe Boulevard to Nordhoff Street
- Lassen Street
- Plummer Street
- Chatsworth Street
- Wilbur Avenue
- Parthenia Street

The following roadways are designated as Collector Streets. Collector streets are characterized by two full-time through lanes and two full-time parking lanes.

- Zelzah Avenue from Roscoe Boulevard to Nordhoff Street
- Lindley Avenue from Plummer Street to Devonshire Street
- Prairie Street
- Etiwanda Avenue from Vincennes Street to Chatsworth Street

The following roadways are considered Local Streets:

- Darby Avenue
- West University Drive
- East University Drive
- Etiwanda Avenue from Nordhoff Street to Dearborn Street
- Halsted Street

Local Roadway Improvements

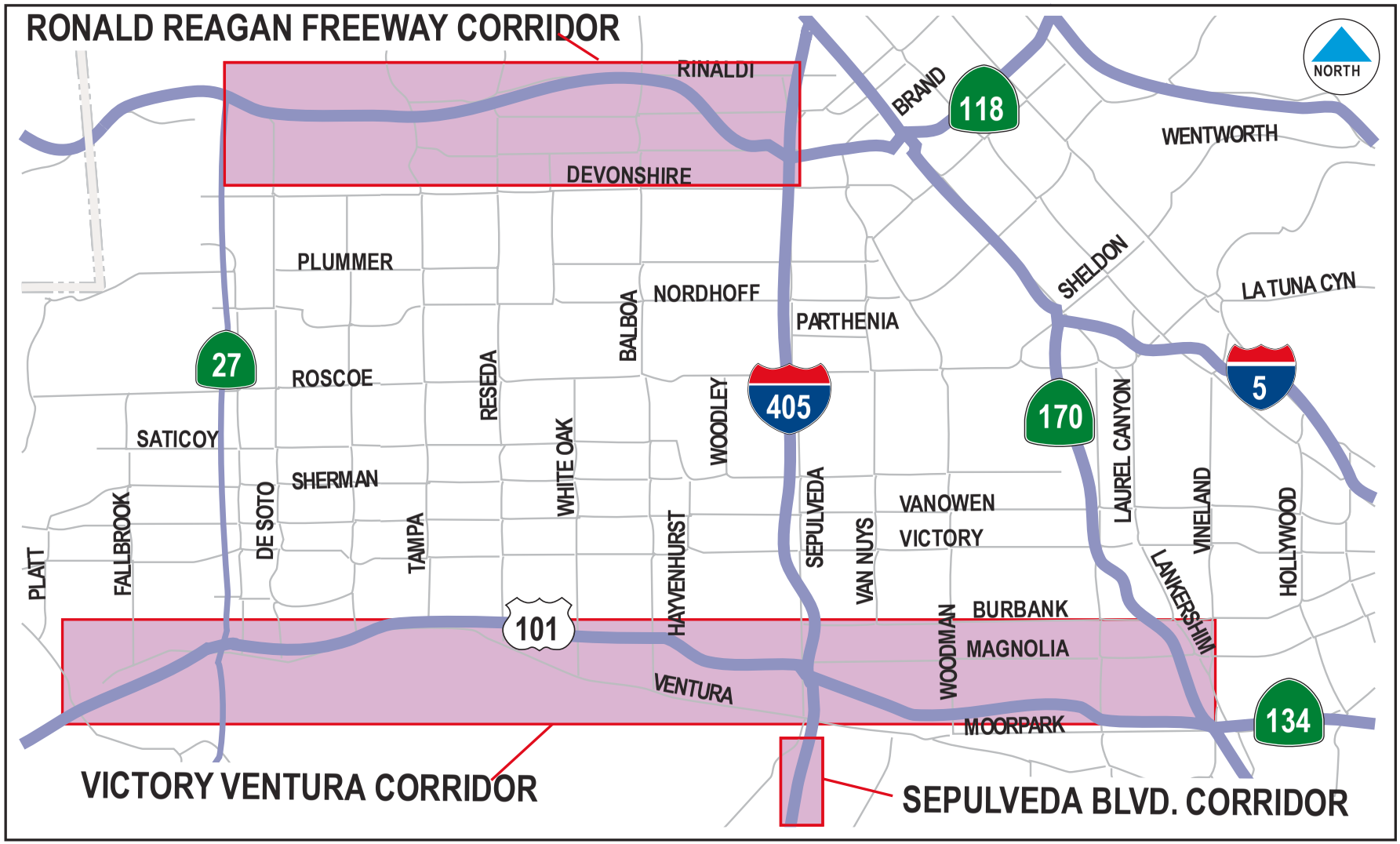
As part of the San Fernando Valley Corridor Signal System Improvement program currently being implemented by the Los Angeles Department of Transportation (LADOT), three local areas will receive signal improvements. The areas scheduled for improvement are the Ronald Reagan Freeway Corridor, located to the north of the project site; the Victory Ventura Corridor located in the southern portion of the San Fernando Valley along US 101; and the Sepulveda Boulevard Corridor, located south of the Victory Ventura Corridor along Sepulveda Boulevard. These areas are shown in **Figure 3.8-1, Local Roadway Improvements.** Improvements within the Ronald Reagan Freeway Corridor include the implementation of the Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) at 59 intersections. The Victory Ventura Corridor improvements will include the retrofit of 479 ATSAC signalized intersections. The ATCS would be implemented at 18 ATSAC intersections as part of the Sepulveda Boulevard Corridor improvements.

Public Transportation

The Los Angeles County Metropolitan Transportation Authority (MTA) and LADOT provide transit services within the Northridge area. Current regional transit information available through the MTA indicates that several bus routes have stops within a reasonable walking distance (approximately one-quarter mile) of the project site. Current schedules indicate that the existing transit routes in the vicinity of CSUN campus provide a combined total of about 240 buses operating per direction during the weekday, with about 24 and 23 buses per direction operating during the AM and PM peak hours, respectively. The routes in the immediate project vicinity are described below. When transfer opportunities are considered, the bus and rail lines outlined below provide access between the project site and key destinations throughout the Los Angeles metropolitan area.

MTA Line 158 provides service between Northridge, Chatsworth, Granada Hills, Arleta, Panorama City, Van Nuys, and Sherman Oaks. In the campus vicinity, **Line 158** provides service along Devonshire Street and stops on Devonshire Street at Balboa Boulevard. Weekday service on **Line 158** is provided on headways of approximately 15 to 30 minutes during AM peak hours, and one hour for the rest of the day. Saturday, Sunday, and holiday service is provided on headways of approximately one hour.

MTA Line 166 provides service between Northridge, Chatsworth, Panorama City, Pacoima, Sun Valley, North Hollywood, and Universal City. In the campus vicinity, **Line 166** provides service along Nordhoff Street and stops at Nordhoff Street and Reseda Boulevard. Weekday service on **Line 166** is provided on headways of approximately 15 to 30 minutes during the entire service period. Saturday, Sunday, and holiday service is provided on headways of approximately 30 minutes.



SOURCE: City of Los Angeles – Undated

FIGURE **3.8-1**

Local Roadway Improvements

750-001•10/05

Metropolitan Transit Authority (MTA) Line 167 provides service between Northridge, Chatsworth, Panorama City, North Hollywood, and Studio City. In the campus vicinity, **Line 167** provides service along Plummer Street and stops at Nordhoff Street and Reseda Boulevard. Weekday service on **Line 167** is provided on headways ranging from approximately 15 to 45 minutes during the entire service period. Saturday, Sunday, and holiday service is provided on headways of approximately one hour.

MTA Line 168 provides service between Northridge, Chatsworth, North Hills, Pacoima, and San Fernando. In the campus vicinity, **Line 168** provides service along Lassen Street and stops at Lassen Street and Balboa Boulevard. Weekday service on **Line 168** is provided on headways of approximately one hour during the entire service period. **Line 168** does not provide service on Saturday, Sunday, and holidays.

MTA Line 239 provides service between Northridge, Granada Hills, Mission Hills, San Fernando, Encino, and Reseda. In the campus vicinity, **Line 239** provides service along Zelzah Avenue and stops at Zelzah Avenue and Nordhoff Street. Weekday service on **Line 239** is provided on headways of approximately one hour during the entire service period. Saturday, Sunday, and holiday service is provided on headways of approximately one hour.

MTA Line 240 provides service between Northridge, Reseda, Tarzana, Encino, Sherman Oaks, Studio City, Universal City, Canoga Park, and Woodland Hills. In the campus vicinity, **Line 240** provides service along Reseda Boulevard and stops at Reseda Boulevard and Nordhoff Street. Weekday service on **Line 240** is provided on headways of approximately 10 to 30 minutes during the entire service period. Saturday, Sunday, and holiday service is provided on headways of approximately 30 minutes.

LADOT Commuter Express 419 provides express service from Chatsworth Park to the Downtown Los Angeles area in the morning and reverse in the evening. Service is provided to Chatsworth, Northridge, Granada Hills, Mission Hills, Downtown Los Angeles, and Exposition Park/University of Southern California (USC). In the project vicinity, this line operates along Devonshire Street with a stop provided at Reseda Boulevard. This commuter route operates Monday through Friday only during the peak commute hours (5:30–9:30 AM and 3:45–8:30 PM), on headways of 15 to 20 minutes.

LADOT Commuter Express 573 provides express service from Chatsworth to Century City (with less reverse service) in the morning, and from Century City to Chatsworth (with less return service) in the evening. Along the route, service is provided to Mission Hills, Granada Hills, Northridge, North Hills, Reseda, Encino, Westwood, and Century City. In the project vicinity, this line operates along Balboa Boulevard and Chatsworth Street with a stop provided on Balboa Boulevard at Nordhoff Street. This

commuter route operates Monday through Friday only during the peak commute hours (5:00–10:00 AM and 3:00–8:00 PM), on headways of approximately 15 to 20 minutes.

LADOT Commuter Express 574 provides express service from the Sylmar Metrolink Station to the Los Angeles International Airport (LAX) area in the morning and reverse in the evening. Along the route, service is provided to Sylmar, Granada Hills, North Hills, Reseda, Encino, LAX, and El Segundo. In the project vicinity, this line operates along Balboa Boulevard and Chatsworth Street with a stop provided on Balboa Boulevard at Roscoe Boulevard. This commuter route operates Monday through Friday only during the peak commute hours (5:15–8:45 AM and 3:30–7:30 PM), on headways of 15 to 20 minutes.

LADOT Dash Northridge Route provides service within the Northridge area. This Dash Route stops at Reseda Boulevard and Nordhoff Street and has headways ranging from 10 to 15 minutes Monday through Saturday. The Dash Northridge Route does not provide service on Sundays and holidays.

Metrolink's Ventura County Line provides service from Union Station in Downtown Los Angeles to the Montalvo Station in Ventura. Stops along this route include Glendale, Burbank, Burbank Airport, Van Nuys, Chatsworth, Simi Valley, Moorpark, Camarillo, and Oxnard. The Northridge Station is located near the intersection of Wilbur Avenue and Parthenia Street at 8775 Wilbur Avenue.

Public Transit System Improvements

The proposed San Fernando Valley North-South Transit Corridor Project (SFVNS) is intended, in part, to enhance transit access to CSUN in the future. As part of the SFVNS and the Los Angeles County MTA's Metro Rapid Implementation Plan, Metro Rapid service along Reseda Boulevard and Nordhoff Street in the vicinity of the CSUN campus would be provided. This service, termed the Reseda Metro Rapid line, would begin at the corner of Ventura Boulevard and Reseda Boulevard in Tarzana and travel north along Reseda Boulevard to Nordhoff Street, east along Nordhoff Street to Woodley Avenue and then along portions of Woodley Avenue, Plummer Street, Sepulveda Boulevard, Brand Boulevard, and San Fernando Road to the Sylmar Metrolink Station. In addition to connecting with Metrolink, the Reseda Metro Rapid service would connect with the existing Ventura Boulevard Metro Rapid line, the Metro Orange Line transitway currently under construction, and the proposed Sepulveda Boulevard and San Fernando Road Metro Rapid lines.

The Reseda Metro Rapid line would have a stop adjacent to the south side of the campus along Nordhoff Street between Lindley and Zelzah Avenues. According to information from MTA, implementation of the Reseda Metro Rapid service is anticipated by June 2006.

Existing Traffic Conditions

Local Intersections

An analysis of current traffic conditions was conducted on the streets and highways serving the campus area. Detailed traffic analyses for the project were performed at the following 46 intersections. **Figure 3.8-2, Analyzed Intersections**, depicts the location of the studied intersections relative to the CSUN campus.

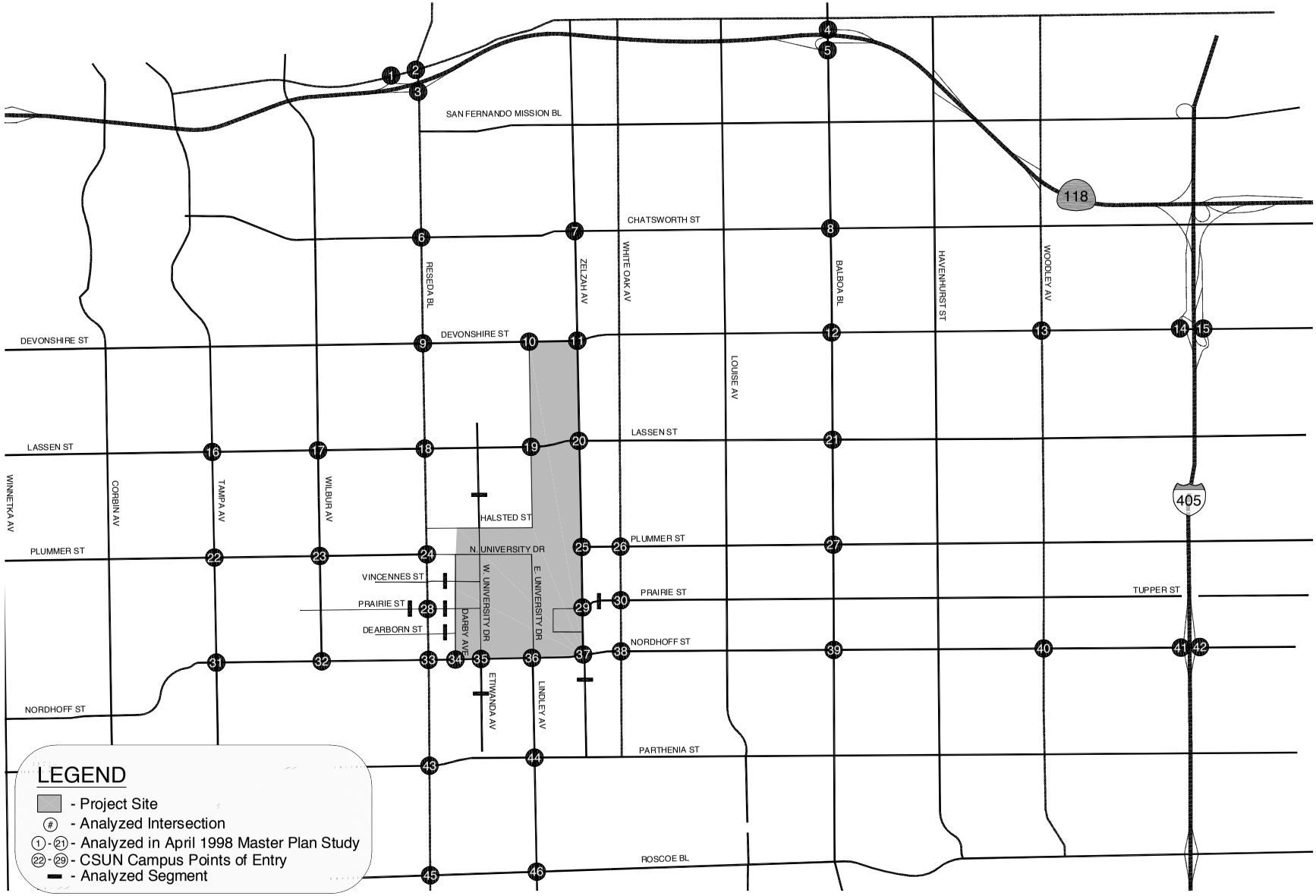
1. Amigo Avenue, SR-118 West Bound Ramps & Rinaldi Street
2. Reseda Boulevard &Rinaldi Street
3. Reseda Boulevard & SR-118 East Bound Ramps
4. Balboa Boulevard & SR-118 West Bound Ramps
5. Balboa Boulevard & SR-118 East Bound Ramps
6. Reseda Boulevard & Chatsworth Street
7. Zelzah Avenue & Chatsworth Street
8. Balboa Boulevard & Chatsworth Street
9. Reseda Boulevard & Devonshire Street
10. Lindley Avenue & Devonshire Street
11. Zelzah Avenue & Devonshire Street
12. Balboa Boulevard & Devonshire Street
13. Woodley Avenue & Devonshire Street
14. I-405 South Bound Ramps, Blucher Avenue & Devonshire Street
15. I-405 North Bound Ramps & Devonshire Street
16. Tampa Avenue & Lassen Street
17. Wilbur Avenue & Lassen Street
18. Reseda Boulevard & Lassen Street
19. Lindley Avenue & Lassen Street
20. Zelzah Avenue & Lassen Street
21. Balboa Boulevard & Lassen Street
22. Tampa Avenue & Plummer Street
23. Wilbur Avenue & Plummer Street
24. Reseda Boulevard & Plummer Street
25. Zelzah Avenue & Plummer Street
26. White Oak Avenue & Plummer Street
27. Balboa Boulevard & Plummer Street
28. Reseda Boulevard & Prairie Street
29. Zelzah Avenue & Prairie Street

30. White Oak Avenue & Prairie Street
31. Tampa Avenue & Nordhoff Street
32. Wilbur Avenue & Nordhoff Street
33. Reseda Boulevard & Nordhoff Street
34. Darby Avenue & Nordhoff Street
35. W University Drive, Etiwanda Avenue & Nordhoff Street
36. E University Drive, Lindley Avenue & Nordhoff Street
37. Zelzah Avenue & Nordhoff Street
38. White Oak Avenue & Nordhoff Street
39. Balboa Boulevard & Nordhoff Street
40. Woodley Avenue & Nordhoff Street
41. I-405 South Bound Ramps & Nordhoff Street
42. I-405 North Bound Ramps & Nordhoff Street
43. Reseda Boulevard & Parthenia Street
44. Lindley Avenue & Parthenia Street
45. Reseda Boulevard & Roscoe Boulevard
46. Lindley Avenue & Roscoe Boulevard

All of the intersections listed above are signalized except White Oak Avenue & Plummer Street, White Oak Avenue & Prairie Street, and Darby Avenue & Nordhoff Street. These three intersections are "stop-controlled" (i.e., controlled by stop signs). White Oak Avenue & Plummer Street and Darby Avenue & Nordhoff Street are TWSC and White Oak Avenue & Prairie Street is AWSC.

Weekday morning and evening peak hour traffic counts were conducted at the analyzed intersections in September 2004 and March 2005. The traffic counts were conducted on Tuesdays, Wednesdays and Thursdays, the days with the highest levels of activity on the CSUN campus, during non-holiday weeks in order to represent a typical travel pattern in the vicinity. Likewise, traffic count dates were in the early to middle of the fall and spring semesters. Of the 46 intersections, seven were counted in September 2004. Traffic counts at these locations were factored by 1 percent to represent 2005 conditions. **Figure 3.8-3, Existing Intersection Traffic Volumes**, illustrates the existing traffic volumes for the 46 analyzed intersections.

The traffic volumes discussed above were used to determine the current levels of service, average vehicular delay, and V/C ratios for the surveyed intersections. This information is shown in **Table 3.8-4, Intersection Level of Service, Average Vehicular Delay, and V/C Ratios**. As shown, 24 intersections currently experience LOS D, E, or F during the AM peak hour. During the PM peak hour, 26 study intersections currently experience LOS D or worse.



NOT TO SCALE

SOURCE: Kaku Associates – September 2005

FIGURE **3.8-2**

Analyzed Intersections

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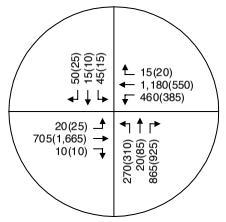
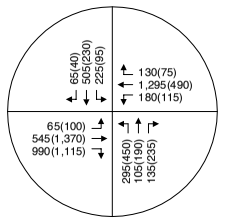
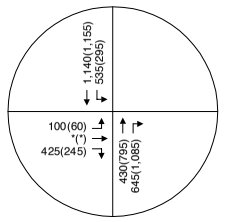


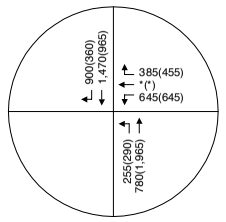
1. AMIGO AV/SR-118 WB RAMPS
RINALDI ST



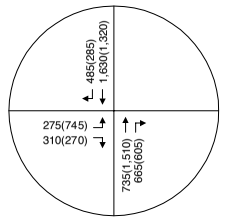
2. RESEDA BL
RINALDI ST



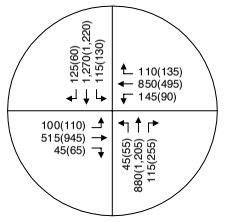
3. RESEDA BL
SR-118 EB RAMPS



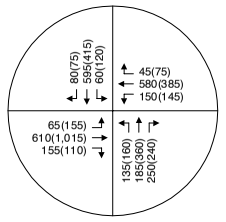
4. BALBOA BL
SR-118 WB RAMPS



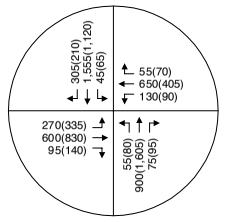
5. BALBOA BL
SR-118 EB RAMPS



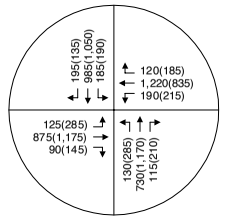
6. RESEDA BL
CHATSWORTH ST



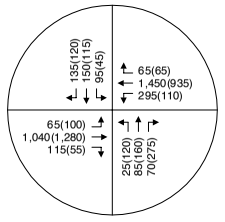
7. ZELZAH AV
CHATSWORTH ST



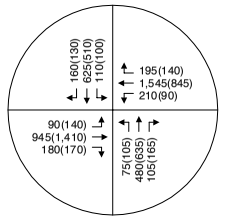
8. BALBOA BL
CHATSWORTH ST



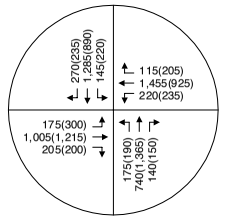
9. RESEDA BL
DEVONSHIRE ST



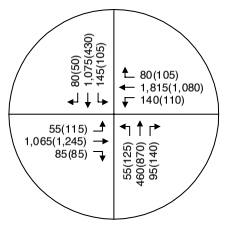
10. LINDLEY AV
DEVONSHIRE ST



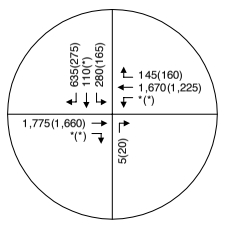
11. ZELZAH AV
DEVONSHIRE ST



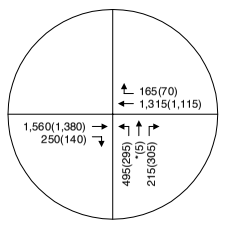
12. BALBOA BL
DEVONSHIRE ST



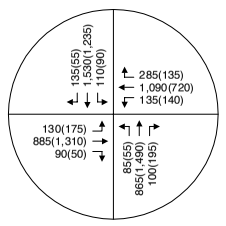
13. WOODLEY AV
DEVONSHIRE ST



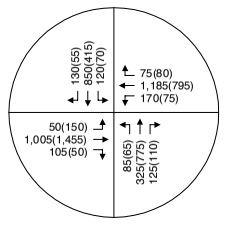
14. I-405 SB RAMPS/BLUCHER AV
DEVONSHIRE ST



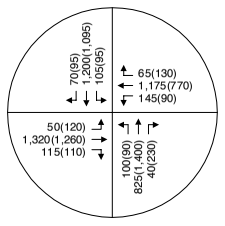
15. I-405 NB RAMPS
DEVONSHIRE ST



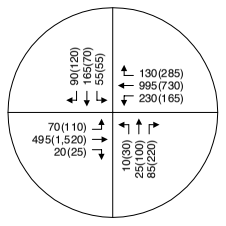
16. TAMPA AV
LASSEN ST



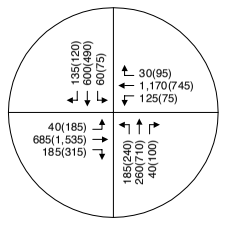
17. WILBUR AV
LASSEN ST



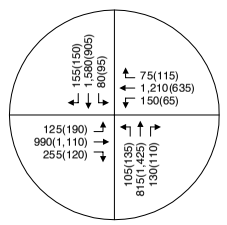
18. RESEDA BL
LASSEN ST



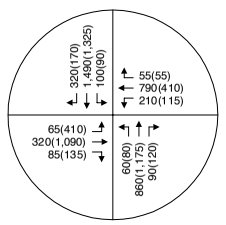
19. LINDLEY AV
LASSEN ST



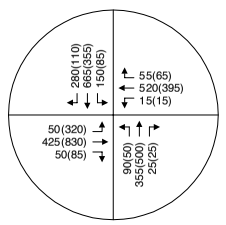
20. ZELZAH AV
LASSEN ST



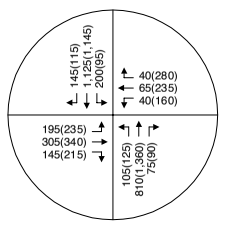
21. BALBOA BL
LASSEN ST



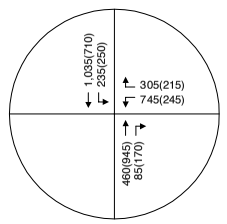
22. TAMPA AV
PLUMMER ST



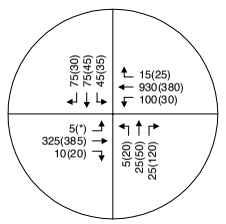
23. WILBUR AV
PLUMMER ST



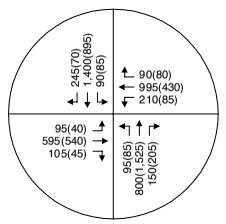
24. RESEDA BL
PLUMMER ST



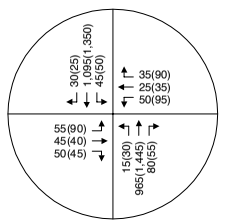
25. ZELZAH AV
PLUMMER ST



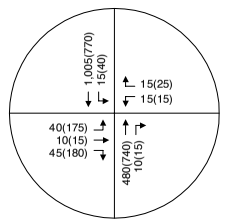
26. WHITE OAK AV
PLUMMER ST



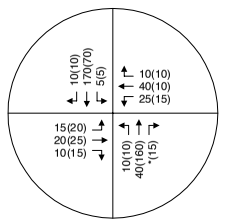
27. BALBOA BL
PLUMMER ST



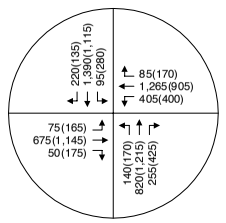
28. RESEDA BL
PRAIRIE ST



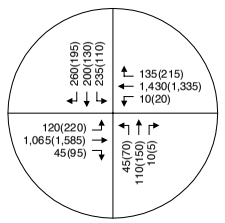
29. ZELZAH AV
PRAIRIE ST



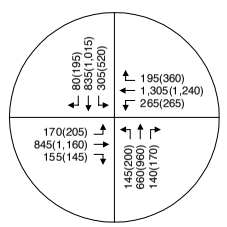
30. WHITE OAK AV
PRAIRIE ST



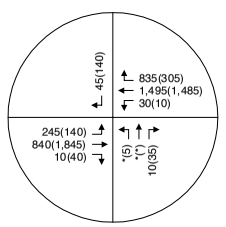
31. TAMPA AV
NORDHOFF ST



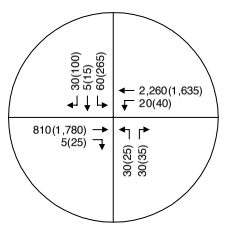
32. WILBUR AV
NORDHOFF ST



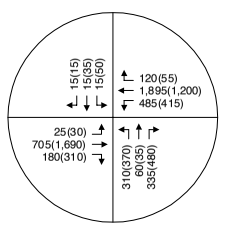
33. RESEDA BL
NORDHOFF ST



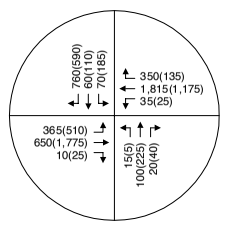
34. DARBY AV
NORDHOFF ST



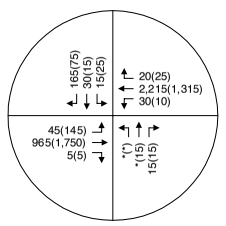
35. W UNIVERSITY DR/ETIWANDA AV
NORDHOFF ST



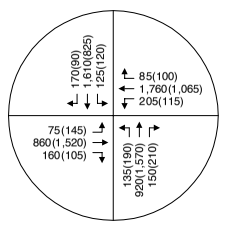
36. LINDLEY AV
NORDHOFF ST



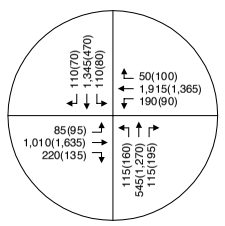
37. ZELZAH AV
NORDHOFF ST



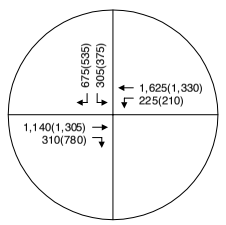
38. WHITE OAK AV
NORDHOFF ST



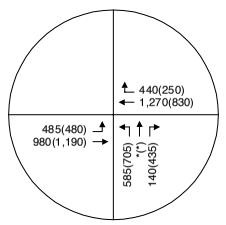
39. BALBOA BL
NORDHOFF ST



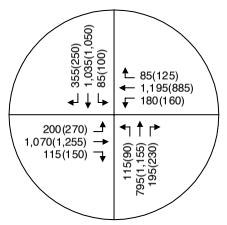
40. WOODLEY AV
NORDHOFF ST



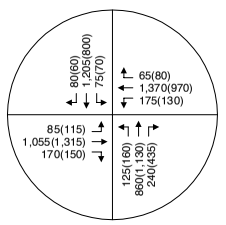
41. I-405 SB RAMPS
NORDHOFF ST



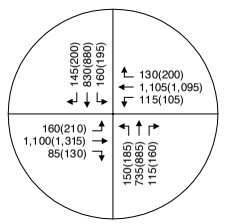
42. I-405 NB RAMPS
NORDHOFF ST



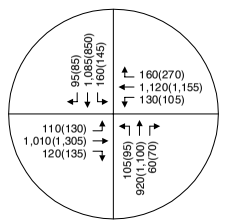
43. RESEDA BL
PARTHENIA ST



44. LINDLEY AV
PARTHENIA ST



45. RESEDA BL
ROSCOE BL



46. LINDLEY AV
ROSCOE BL

Legend:
XX(XX) = AM(PM) peak hour traffic volumes (rounded to the nearest five vehicles)
* = Negligible volume

SOURCE: Kaku Associates – September 2005

FIGURE **3.8-3**

Existing Intersection Traffic Volumes

750-01•10/05

Table 3.8-4
Intersection Level of Service, Average Vehicular Delay, and V/C Ratios

#	Intersection	AM			PM		
		LOS	Delay	V/C	LOS	Delay	V/C
1	Amigo Avenue, SR-118 West Bound Ramps/Rinaldi Street	C		0.759	E		0.958
2	Reseda Boulevard/Rinaldi Street	A		0.599	C		0.744
3	Reseda Boulevard/SR-118 East Bound Ramps	A		0.536	A		0.571
4	Balboa Boulevard/SR-118 West Bound Ramps	E		0.982	B		0.646
5	Balboa Boulevard/SR-118 East Bound Ramps	A		0.504	C		0.708
6	Reseda Boulevard/Chatsworth Street	D		0.881	E		0.969
7	Zelzah Avenue/Chatsworth Street	B		0.617	C		0.757
8	Balboa Boulevard/Chatsworth Street	D		0.841	C		0.774
9	Reseda Boulevard/Devonshire Street	D		0.871	E		0.921
10	Lindley Avenue/Devonshire Street	C		0.755	B		0.635
11	Zelzah Avenue/Devonshire Street	D		0.887	D		0.816
12	Balboa Boulevard/Devonshire Street	E		0.941	E		0.971
13	Woodley Avenue/Devonshire Street	F		1.021	C		0.739
14	I-405 South Bound Ramps, Blucher Avenue/Devonshire Street	C		0.761	A		0.497
15	I-405 North Bound Ramps/Devonshire Street	A		0.498	A		0.471
16	Tampa Avenue/Lassen Street	E		0.973	E		0.981
17	Wilbur Avenue/Lassen Street	D		0.863	D		0.895
18	Reseda Boulevard/Lassen Street	F		1.069	F		1.124
19	Lindley Avenue/Lassen Street	B		0.639	D		0.895
20	Zelzah Avenue/Lassen Street	C		0.753	E		0.992
21	Balboa Boulevard/Lassen Street	E		0.969	D		0.859
22	Tampa Avenue/Plummer Street	D		0.817	E		0.950
23	Wilbur Avenue/Plummer Street	A		0.600	A		0.598
24	Reseda Boulevard/Plummer Street	B		0.671	D		0.890
25	Zelzah Avenue/Plummer Street	B		0.620	B		0.682
26	White Oak Avenue/Plummer Street	F	*		D	26.0	
27	Balboa Boulevard/Plummer Street	D		0.855	B		0.696
28	Reseda Boulevard/Prairie Street	A		0.519	C		0.739
29	Zelzah Avenue/Prairie Street	A		0.385	A		0.420
30	White Oak Avenue/Prairie Street	A	8.0		A	8.0	
31	Tampa Avenue/Nordhoff Street	D		0.803	E		0.988
32	Wilbur Avenue/Nordhoff Street	B		0.633	B		0.671
33	Reseda Boulevard/Nordhoff Street	C		0.796	F		1.028
34	Darby Avenue/Nordhoff Street	F	*		F	*	
35	W University Drive, Etiwanda Avenue/Nordhoff Street	A		0.592	A		0.592
36	E University Drive, Lindley Avenue/Nordhoff Street	C		0.728	F		1.037
37	Zelzah Avenue/Nordhoff Street	D		0.811	D		0.821
38	White Oak Avenue/Nordhoff Street	B		0.681	A		0.491
39	Balboa Boulevard/Nordhoff Street	E		0.946	E		0.914
40	Woodley Avenue/Nordhoff Street	E		0.984	E		0.924
41	I-405 South Bound Ramps/Nordhoff Street	D		0.844	D		0.881
42	I-405 North Bound Ramps/Nordhoff Street	B		0.652	B		0.621
43	Reseda Boulevard/Parthenia Street	F		1.071	F		1.119
44	Lindley Avenue/Parthenia Street	F		1.047	F		1.146
45	Reseda Boulevard/Roscoe Boulevard	D		0.879	E		0.991
46	Lindley Avenue/Roscoe Boulevard	D		0.822	D		0.887

Source: Kaku Associates, Inc., September 2005
** Volumes exceed the limits of the Highway Capacity Manual stop-controlled software. Average delay cannot be calculated. Indicates overloaded (LOS F) conditions.*

City of Los Angeles Automated Traffic Surveillance and Control System

Thirteen of the 43 signalized analyzed intersections are currently controlled by the City of Los Angeles ATSAC system. The system allows traffic signals to be controlled remotely by the City traffic management center located in downtown Los Angeles. Traffic patterns can be observed in real time at all hours of the day, allowing signal timing to be changed automatically or manually to suit ever-changing traffic patterns. LADOT estimates that the ATSAC system adds 7 percent capacity (0.07 V/C adjustments) to the operations of the intersection. The ATCS is a sub-feature of the ATSAC system (i.e., ATSAC must be in place in order to have ATCS capabilities). ATCS allows fully automated traffic control adjusted to real time traffic demand needs. The added capability of ATCS would increase signalized intersection capacity by 3 percent (0.03 V/C adjustments) in addition to the 7 percent.

In accordance with LADOT procedures, a capacity of 7 percent (0.07 V/C adjustment) was applied to reflect the benefits of ATSAC control at these intersections:

- Amigo Avenue/SR-118 westbound ramps & Rinaldi Street (int. #1)
- Reseda Boulevard & Rinaldi Street (int. #2)
- Reseda Boulevard & SR-118 eastbound ramps (int. #3)
- Balboa Boulevard & SR-118 westbound ramps (int. #4)
- Balboa Boulevard & SR-118 eastbound ramps (int. #5)
- Balboa Boulevard & Chatsworth Street (int. #8)
- Balboa Boulevard & Devonshire Street (int. #12)
- Woodley Avenue & Devonshire Street (int. #13)
- I-405 southbound ramps/Blucher Avenue & Devonshire Street (int. #14)
- I-405 northbound ramps & Devonshire Street (int. #15)
- Woodley Avenue & Nordhoff Street (int. #40)
- I-405 southbound ramps & Nordhoff Street (int. #41)
- I-405 northbound ramps & Nordhoff Street (int. #42)

The City of Los Angeles is implementing the ATSAC system at five of the analyzed intersections under cumulative conditions under the Ronald Reagan Freeway Corridor Project. In year 2035, it was assumed that the total number of study locations operating under ATSAC control was 18 (13 plus 5).

Neighborhood Street Segments

Current traffic conditions at the following eight neighborhood street segments were analyzed:

1. Prairie Street west of Reseda Boulevard
2. Vincennes Street west of Darby Avenue
3. Dearborn Street west of Darby Avenue
4. Prairie Street west of Darby Avenue
5. West University Drive/Etiwanda Avenue north of Halsted Street
6. West University Drive/Etiwanda Avenue south of Nordhoff Street
7. Zelzah Avenue south of Nordhoff Street
8. Prairie Street east of Zelzah Avenue

Table 3.8-5, Existing Neighborhood Street Segment ADT, shows the existing Average Daily Traffic (ADT) for the analyzed street segments.

Table 3.8-5
Existing Neighborhood Street Segment ADT

#	Classification	Existing ADT
1	Collector	3,294
2	Local	3,210
3	Local	2,951
4	Collector	5,087
5	Collector	3,195
6	Collector	2,535
7	Collector	3,735
8	Collector	1,311

Source: Kaku Associates, Inc., September 2005.

Parking

Parking Demand

Of the 24,473 Full-Time Equivalent (FTE) students, approximately 2,400 reside on campus.[1] Therefore, the number of commuter FTEs requiring parking is 22,073. Those students who currently reside on

[1] *Traffic and Parking Study for the California State University*, Northridge Master Plan, Kaku Associates, Inc., September 2005.

campus generate a demand of approximately 1,510 parking spaces. The current demand generated by these commuting students is 8,610 parking spaces. There are approximately 3,980 staff and faculty serving the campus, which translates into a parking demand of 2,310 spaces. Visitors generate a demand of approximately 220 parking spaces. The CSUN campus supports daytime events at the University Student Union (USU), University Club, Performing Arts Theatre, and Satellite Student Union. Under peak usage, events at these venues generate a parking demand of 677 spaces. The overall current CSUN campus parking demand is approximately 13,320 spaces.

On-Campus Parking Supply

Parking inventory for the CSUN campus was obtained from the University. With the completion of the new B3 parking structure, located at the corner of West University Drive and Prairie Street, the campus has a total of 12,128 parking spaces. **Figure 3.8-4, Current On-Campus Parking Lots and Structures**, shows the current locations of campus parking lots and structures.

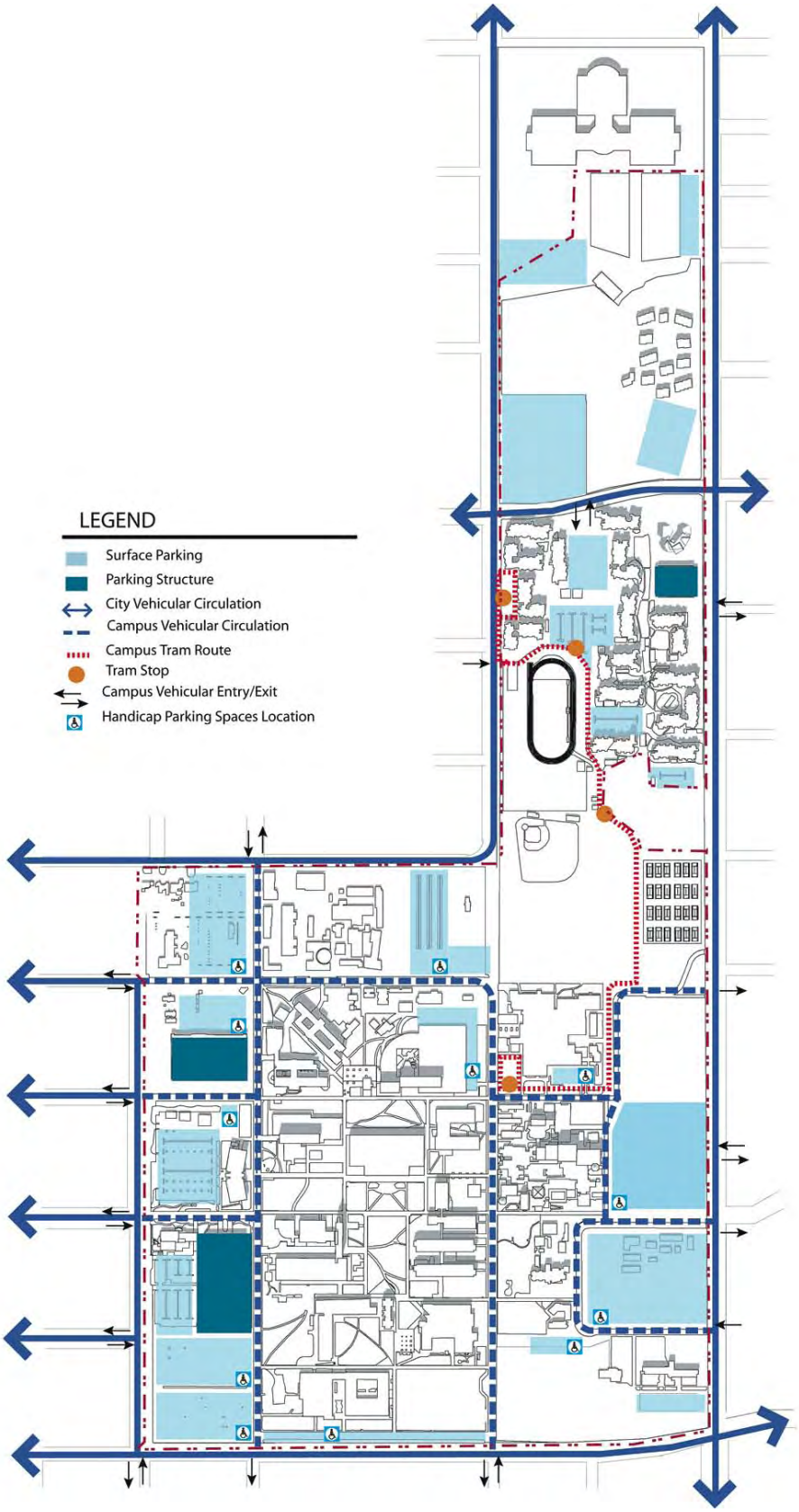
Parking Fees

Students can pay for parking on a daily basis at the rate of $4 or $126 for one semester and $252 for one academic year (two semesters). Located farther from the core of the campus, parking rates at North Campus Parking Lots are less expensive at $80 per semester. Students living on campus can pay $252 per academic year to be a part of the student residents' pool of parking. Rates vary for summer terms.

Depending on bargaining units set by CSUN, faculty and staff parking rates vary for two categories: general parking and summer session. Short-term parking rates for visitors are $4 per day and $2 per hour at the parking meter.

Off-Campus Parking Supply

The campus perimeter streets and residential streets surrounding the CSUN campus are used as locations for additional parking. To the east along Zelzah Avenue there is a mixture of single-family homes and apartment complexes. Areas to the north of Halsted Street west of Lindley Avenue and to the south of Nordhoff Street mostly consist of single-family homes. Apartments largely occupy areas to the west of the campus between Darby Avenue and Reseda Boulevard and west of Reseda Boulevard. **Figure 3.8-5, Current Off-Campus Parking Supply**, shows the parking opportunities and restrictions on the streets along the campus perimeter as well as the nearby residential streets. The parking restriction zone is bounded by White Oak Avenue to the east, Devonshire Street to the north, Yolanda Avenue to the west and Rayen Street to the south. This zone represents approximately one to two city blocks in each direction from the edges of the campus. Most available parking without restrictions, shown in green in

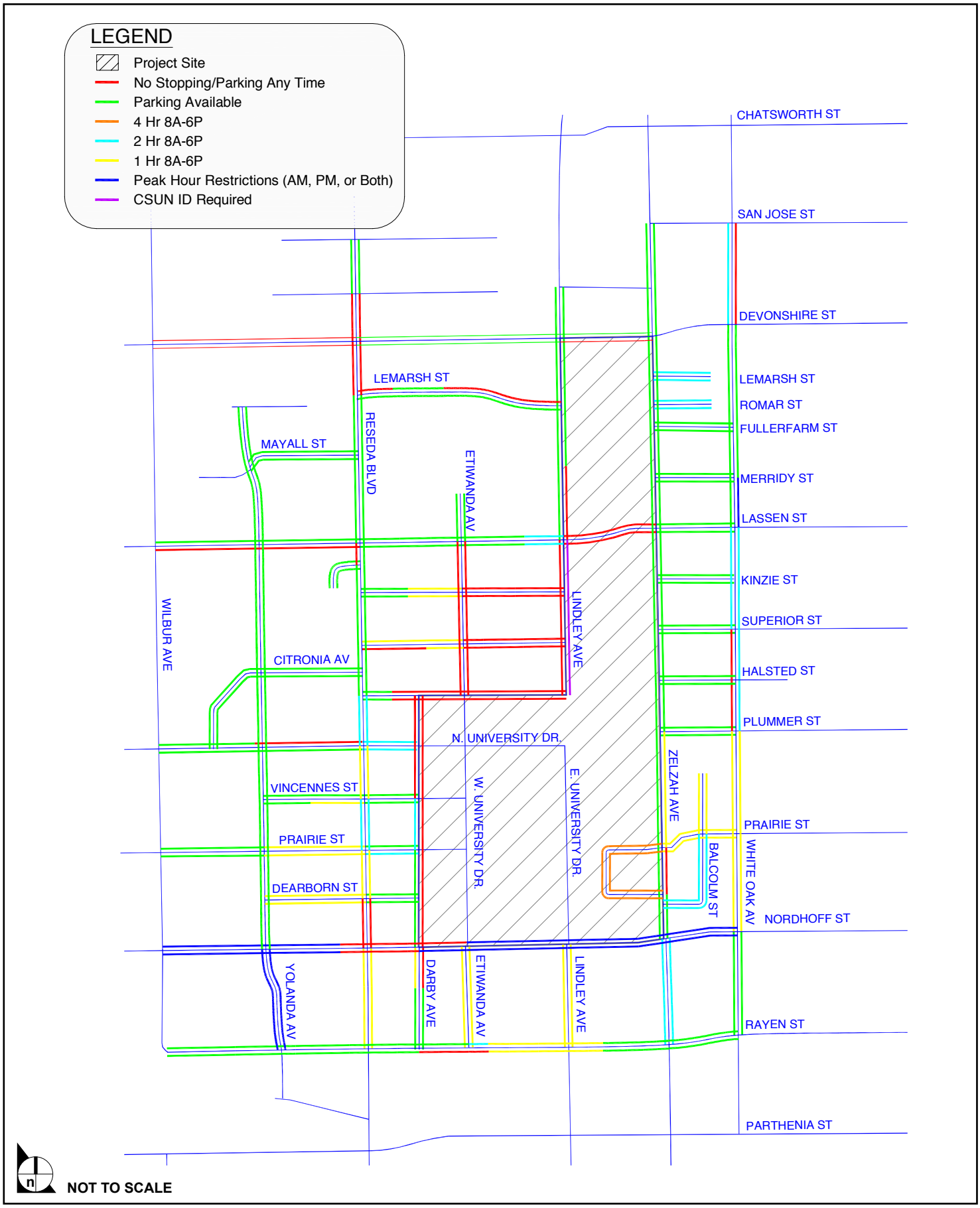


NOT TO SCALE

SOURCE: AC Martin Partners – October 2005

FIGURE **3.8-4**

Current On-Campus Parking Lots and Structures



SOURCE: Kaku Associates – September 2005

FIGURE **3.8-5**

Current Off-Campus Parking Supply

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Figure 3.8-5, is located along Zelzah Avenue north of Plummer Street, on the north side along Lassen Street, along Reseda Boulevard north of North University Drive, and along Rayen Street west of Devonshire Street. Zelzah Avenue and White Oak Avenue also has available parking without time restrictions. Areas immediately adjacent to the campus mostly consist of parking restrictions between one and four-hour limits or no parking is allowed. There are approximately 676 parking spaces along the perimeter streets of the CSUN campus, excluding the campus controlled permit and metered spaces on the east side of Lindley Avenue between Lassen Street and Halsted Street.

3.8.4 REGULATORY SETTING

Los Angeles County Congestion Management Program

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). 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.

Within the area surrounding the project site, SR-118, I-405, Topanga Canyon Boulevard (SR-27), Victory Boulevard and Ventura Boulevard are all part of the CMP road network.

The following must be included in a traffic impact analysis, at minimum: all CMP monitoring locations, including monitored freeway on- or off-ramp intersections, where the proposed project would add 50 or more trips during either the AM or PM weekday peak hours; all arterial segments where the proposed project would add 50 or more peak hour trips, if CMP arterial segments are being analyzed rather than intersections; mainline freeway locations where the proposed project would add 150 or more trips, in either direction, during either the AM or PM weekday peak hours; and any other locations that California Department of Transportation (Caltrans) determines relevant and necessary.[2]

Los Angeles Department of Transportation

LADOT is responsible for transportation issues within the City of Los Angeles boundaries. LADOT reviews the transportation/traffic studies prepared for all types for which the City is the lead agency, in addition to other public agency projects located within, or that may affect, the City. LADOT internal procedures are described in their Traffic Study Policies and Procedures Manual (August, 2003).

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2 2004 *Guidelines for CMP Transportation Impact Analysis*, Metropolitan Transit Authority, July 22, 2004.

3.8.5 SIGNIFICANCE CRITERIA

According to the City of Los Angeles *California Environmental Quality Act (CEQA) Thresholds Guide*, a significant traffic impact would occur on:

TRAF-1: Intersection capacity if the project traffic causes an increase in the V/C ratio on the intersection operating condition after the addition of project traffic of one of the following:

V/C ratio increase $\geq$ 0.040 if final LOS is C

V/C ratio increase $\geq$ 0.020 if final LOS is D

V/C ratio increase $\geq$ 0.010 if final LOS is E or F

If an intersection is unsignalized, the methodology for signalized intersections is used to determine the significance of impacts using the scale above.

TRAF-2: Street segment capacity impact if project traffic causes an increase in the V/C ratio on the street segment operating condition after the addition of project traffic equal to or greater than the following:

V/C ratio increase $\geq$ 0.080 if final LOS is C

V/C ratio increase $\geq$ 0.040 if final LOS is D

V/C ratio increase $\geq$ 0.020 if final LOS is E or F

TRAF-3: Freeway capacity if project traffic causes an increase in the demand to capacity (D/C) ratio on a freeway segment on- or off-ramp of 2 percent or more capacity (D/C increase > 0.02), which causes or worsens LOS F conditions (D/C > 1.00)

TRAF-4: Neighborhood intrusion if project traffic increases the average daily traffic (ADT) volume on a local residential street in an amount equal to or greater than the following:

ADT increase > 120 trips if final ADT < 1,000

ADT increase > 12 percent if final ADT > 1,000 and < 2,000

ADT increase > 10 percent if final ADT > 2,000 and < 3,000

ADT increase > 8 percent if final ADT > 3,000

TRAF-5: Access if the project would result in hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); inadequate emergency access or access to nearby uses; or result in hazards or barriers for pedestrians or bicyclists;

TRAF-6: The transit system if the project would increase ridership beyond that which current systems and planned upgrades are designed to accommodate; or

TRAF-7: Parking if the project would result in insufficient parking capacity on site or off site.

The LACMTA performs LOS analyses for average weekday evening peak periods by employing the HCM 2000 methodology. The significance of individual project traffic impacts is based on the existing LOS at the CMP intersections. For purposes of the CMP, a significant impact occurs when:

TRAF-8: The proposed project increases traffic demand on a Congestion Management Program (CMP) facility by 2 percent of capacity (a V/C increase of 0.02 or greater), causing a LOS F. If the facility is already at LOS F, a significant impact would occur when the proposed project increases traffic demand on a CMP facility by 2 percent of capacity.[3]

It should be noted that the above City of Los Angeles threshold TRAF-3 is analogous to the CMP threshold for freeway segments. Therefore, the CMP analysis below would satisfy the freeway segment analysis requirements for both the City of Los Angeles and CMP.

Project impacts on public transit services would be considered significant if:

TRAF-9: The project results in a substantial increase in ridership on the existing public transit system, creating capacity shortages on the system and thereby necessitating system improvements to accommodate additional transit service.

3.8.6 ENVIRONMENTAL IMPACTS

Program Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next 30 years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents, or FTEs, over the next 30 years, as well as accommodate the evolving pedagogic needs of the University's academic, administrative, student support, and campus support department and programs.

TRAF-1: Intersection capacity if the project traffic causes an increase in the V/C ratio on the intersection operating condition after the addition of project traffic of one of the following:

V/C ratio increase $\geq$ 0.040 if final LOS is C

---

3 Ibid.

V/C ratio increase ≥ 0.020 if final LOS is D

V/C ratio increase ≥ 0.010 if final LOS is E or F

Future Year 2035 Without Project Traffic Conditions

Growth from Other Planned Developments

Existing traffic is expected to increase over the next 30 years as a result of general areawide and regional growth and development. Based on historical trends and long-term (year 2030) traffic projections made by SCAG, regional transportation demand forecasting model, traffic demands on the arterial street system in the Northridge area are projected to increase by an average of about 0.4 percent per year in the morning peak period and 0.6 percent in the afternoon peak period. These factors were used to adjust the existing year 2005 traffic volumes to reflect the effects of regional growth and development by the year 2035. The total adjustment applied over the 30-year period was 12 percent in the morning peak period and 18 percent in the afternoon peak period.

Future Year 2035 Traffic Forecasts

Year 2035 without project traffic forecasts include the effects of the eight related projects listed in **Table 1.0-1** of this EIR. The list of related projects was obtained from staff of the City of Los Angeles. The locations of the eight related projects are shown in **Figure 1.0-1, Related Projects.**

Trip Generation

Trip generation estimates for the related projects were calculated using the trip generation rates contained in Trip Generation, 7th Edition (Institute of Transportation Engineers [ITE], 2003). As shown in **Table 3.8-6, Related Project Trip Generation**, it was projected that the eight related projects would generate a combined total of approximately 27,252 daily trips. Approximately 912 vehicles per hour would occur during the weekday morning peak hour and 2,246 vehicles per hour would occur during the weekday evening peak hour.

Table 3.8-6
Related Project Trip Generation

#	Project	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
1	Shopping Center	59,000 sq. ft.	4,806	52	33	85	204	222	426
2	Convenience Store	2,000 sq. ft.	1,469	64	64	128	51	49	100
3	Light Industrial Building	28,000 sq. ft.	3,035	46	29	75	131	142	273
4	Target Store	30,000 sq. ft.	2,528	20	10	30	70	70	140
5	Apartments & Retail								
	Apartments	202 d.u.	1,357	21	82	103	81	44	125
	Retail	4,000 sq. ft.	179	1	4	5	7	4	11
6	Fast Food with Drive Through	3,300 sq. ft.	1,637	89	86	175	59	55	114
7	Apartments & Retail								
	Apartments	312 d.u.	2,097	32	127	159	125	68	193
	Retail	43,000 sq. ft.	1,913	9	35	44	77	40	117
8	Discount Store	163,000 sq. ft.	8,231	73	35	108	374	373	747
Total			**27,252**	**407**	**505**	**912**	**1,179**	**1,067**	**2,246**

Source: Kaku Associates, Inc., September 2005.
sq. ft. = square feet; d.u. = dwelling unit

Trip Distribution and Assignment

The geographic distribution of the traffic generated by the related projects would depend on several factors. These factors include the type and density of the proposed land use, the geographic distribution of population from which the patrons and employees of the proposed commercial projects may be drawn, the geographic distribution of employment and activity centers to which residents of the proposed residential projects may be drawn, and the location of the proposed project in relation to the surrounding street system.

Utilizing the estimated trip generation and trip distribution patterns described above, traffic generated by the list of the related projects was assigned to the street network. These volumes were then added to the existing traffic volumes with ambient growth. The resulting traffic volumes are illustrated in **Figure 3.8-6, Future Year 2035 Without Project Traffic Volumes**, representing cumulative base traffic conditions for the weekday morning and evening peak hour in 2035.

Future Year 2035 Without Project Intersection Level of Service, Average Vehicular Delay, and V/C Ratios

The traffic volumes discussed above were used to determine the LOS, average vehicular delay and V/C ratio for the 46 analyzed intersections. A summary of the calculations is provided in **Table 3.8-7**, below. As shown, 30 intersections were projected to operate at LOS E or F during one or both peak hours.

Table 3.8-7
Year 2035 Without Project Intersection Level of Service, Average Vehicular Delay, and V/C Ratios

		AM			PM		
#	Intersection	LOS	Delay	V/C	LOS	Delay	V/C
1	Amigo Avenue, SR-118 West Bound Ramps/Rinaldi Street	D		0.859	F		1.143
2	Reseda Boulevard/Rinaldi Street	B		0.681	D		0.893
3	Reseda Boulevard/SR-118 East Bound Ramps	B		0.609	B		0.687
4	Balboa Boulevard/SR-118 West Bound Ramps	F		1.108	C		0.778
5	Balboa Boulevard/SR-118 East Bound Ramps	A		0.573	D		0.852
6	Reseda Boulevard/Chatsworth Street	E		0.925	F		1.084
7	Zelzah Avenue/Chatsworth Street	B		0.632	D		0.827
8	Balboa Boulevard/Chatsworth Street	E		0.956	E		0.931
9	Reseda Boulevard/Devonshire Street	E		0.907	F		1.027
10	Lindley Avenue/Devonshire Street	C		0.791	C		0.702
11	Zelzah Avenue/Devonshire Street	E		0.928	E		0.901
12	Balboa Boulevard/Devonshire Street	F		1.067	F		1.165
13	Woodley Avenue/Devonshire Street	F		1.155	D		0.891
14	I-405 South Bound Ramps, Blucher Avenue/Devonshire Street	D		0.866	B		0.623
15	I-405 North Bound Ramps/Devonshire Street	A		0.566	A		0.568
16	Tampa Avenue/Lassen Street	F		1.099	F		1.199
17	Wilbur Avenue/Lassen Street	E		0.967	F		1.062
18	Reseda Boulevard/Lassen Street	F		1.201	F		1.339
19	Lindley Avenue/Lassen Street	C		0.721	F		1.056
20	Zelzah Avenue/Lassen Street	D		0.845	F		1.171
21	Balboa Boulevard/Lassen Street	F		1.086	F		1.016
22	Tampa Avenue/Plummer Street	E		0.935	F		1.239
23	Wilbur Avenue/Plummer Street	B		0.675	C		0.713
24	Reseda Boulevard/Plummer Street	C		0.761	F		1.056
25	Zelzah Avenue/Plummer Street	B		0.694	D		0.805
26	White Oak Avenue/Plummer Street*	F	*	0.509	F	51.6	0.518
27	Balboa Boulevard/Plummer Street	E		0.959	D		0.824
28	Reseda Boulevard/Prairie Street	B		0.603	D		0.895
29	Zelzah Avenue/Prairie Street	A		0.431	A		0.496
30	White Oak Avenue/Prairie Street*	A	8.2	0.145	A	8.2	0.143
31	Tampa Avenue/Nordhoff Street	E		0.925	F		1.228
32	Wilbur Avenue/Nordhoff Street	C		0.718	D		0.806
33	Reseda Boulevard/Nordhoff Street	E		0.909	F		1.254

#	Intersection	AM LOS	AM Delay	AM V/C	PM LOS	PM Delay	PM V/C
34	Darby Avenue/Nordhoff Street*	F	*	0.658	F	*	0.624
35	W University Drive, Etiwanda Avenue/Nordhoff Street	B		0.667	C		0.706
36	E University Drive, Lindley Avenue/Nordhoff Street	D		0.820	F		1.231
37	Zelzah Avenue/Nordhoff Street	E		0.913	E		0.980
38	White Oak Avenue/Nordhoff Street	C		0.768	A		0.592
39	Balboa Boulevard/Nordhoff Street	F		1.074	F		1.099
40	Woodley Avenue/Nordhoff Street	F		1.113	F		1.111
41	I-405 South Bound Ramps/Nordhoff Street	E		0.958	F		1.070
42	I-405 North Bound Ramps/Nordhoff Street	C		0.745	C		0.756
43	Reseda Boulevard/Parthenia Street	F		1.229	F		1.391
44	Lindley Avenue/Parthenia Street	F		1.195	F		1.387
45	Reseda Boulevard/Roscoe Boulevard	F		1.004	F		1.004
46	Lindley Avenue/Roscoe Boulevard	E		0.923	F		1.062

Source: Kaku Associates, Inc., September 2005

* *Intersection is controlled by a stop sign. The HCM 2000 stop-controlled methodology was used for the purpose of evaluating the operating condition of the intersection, and therefore, the average vehicular delay is reported. In addition the intersection was evaluated using the CMA methodology in order to evaluate the intersection according to the City of Los Angeles thresholds, and therefore, the V/C ratio is reported.*

** *Volumes exceed the limits of the Highway Capacity Manual stop-controlled software. Average delay cannot be calculated. Indicates overloaded (LOS F) conditions.*

Future Year 2035 With Project Conditions

Individual components of the Master Plan would be implemented gradually over 30 years throughout the CSUN campus. Development on campus as part of the Master Plan would generate construction-related traffic. The addition of construction-related vehicles would have an adverse effect on traffic flow at the studied intersections. However, this traffic would be periodic and temporary. As such, impacts are considered less than significant.

Trip Generation

Trip generation rates/equations from ITE Trip Generation, 7th Edition were used to develop trip generation estimates for the academic component (commuter and resident students, commuter faculty and staff, visitors), the proposed faculty/staff housing, and the retail component of the proposed Master Plan. Trip generation estimates for each category are summarized in **Table 3.8-8, Year 2035 Project Trip Generation**. As shown, growth associated with the proposed Master Plan would generate 19,523 daily trips with 1,499 occurring during the AM peak hour and 1,662 occurring during the PM peak hour.

Table 3.8-8
Year 2035 Project Trip Generation

Land Use	Daily Trips	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Academic Growth							
CSUN FTE Students	16,724	1,181	295	1,476	442	1,033	1,476
Home-to-Work Trip Credit	(911)	(114)	(23)	(137)	(37)	(76)	(113)
Faculty Housing							
Faculty Townhomes/Condos	3,645	46	227	274	217	107	324
Home-to-Work Trip Credit	(911)	(23)	(114)	(137)	(76)	(37)	(113)
North Campus Retail	3,906	57	37	94	171	186	357
Internal Capture/Pass-By Credit	(2,930)	(44)	(29)	(71)	(129)	(140)	(269)
Total Net New Project Trips	**19,523**	**1,103**	**393**	**1,499**	**588**	**1,073**	**1,662**

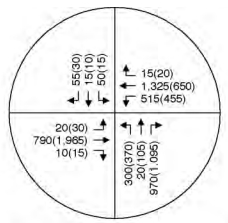
Source: Kaku Associates, Inc., September 2005
FTE = Full-Time Equivalent

Trip Distribution and Assignment

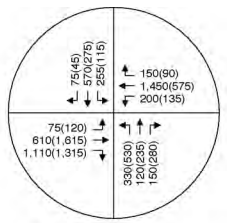
The geographic distribution of trips generated by the proposed project would be dependent on the locations to which the University's students, staff and faculty are drawn, characteristics of the street system serving the site, and the level of accessibility of the routes to and from the proposed project site. The general project trip distribution pattern was developed, in part, using the CSUN database of student and faculty's reported addresses. **Figure 3.8-7, Distribution of CSUN Students by Zip Code**, and **Figure 3.8-8, Distribution of CSUN Staff/Faculty by Zip Code**, show the distribution of students and faculty/staff, respectively, by zip code.

Figure 3.8-9, Project Trip Distribution, shows the projected project trip distribution. It was estimated that approximately 21 percent of the project traffic would be from the north traveling on the SR-118 freeway, 27 percent would be from the east, traveling on the I-405 freeway, and 6 percent from the south traveling on the US 101 freeway. Traveling on local arterials, it is estimated that 6 percent of the project traffic would be from the north, 4 percent from the east, 6 percent from the south, and 7 percent from the west. Five percent of the project traffic is expected to use Balboa Boulevard to the I-5 freeway and 18 percent is expected to be from the immediate surroundings of the campus.

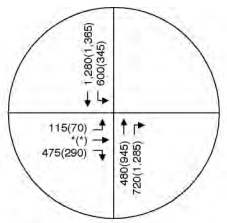
Utilizing the estimated trip generation and trip distribution patterns described above, project-generated traffic was assigned to the local and regional street system. Assignments to each of the existing and proposed campus access points (driveways) were conducted using the Master Plan's designated allocation of parking areas served by each access. The portion of estimated project trips assigned to a particular project driveway was proportional to the percentage of the future parking supply. These



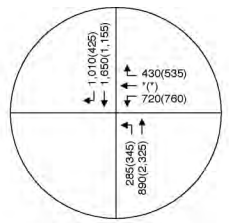
1. AMIGO AV/SR-118 WB RAMPS
RINALDI ST



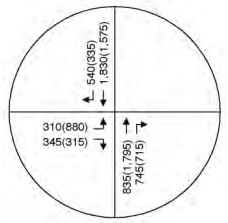
2. RESEDA BL
RINALDI ST



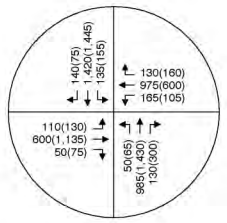
3. RESEDA BL
SR-118 EB RAMPS



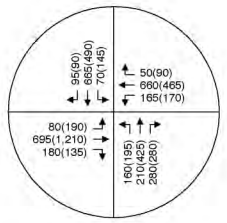
4. BALBOA BL
SR-118 WB RAMPS



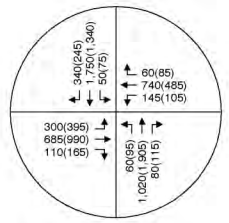
5. BALBOA BL
SR-118 EB RAMPS



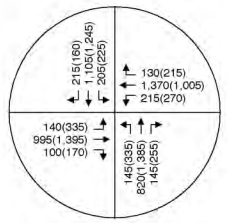
6. RESEDA BL
CHATSWORTH ST



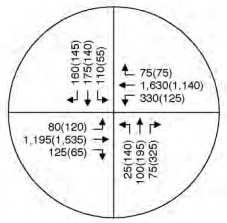
7. ZELZAH AV
CHATSWORTH ST



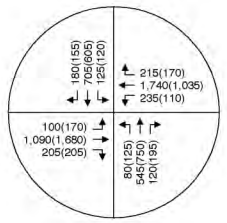
8. BALBOA BL
CHATSWORTH ST



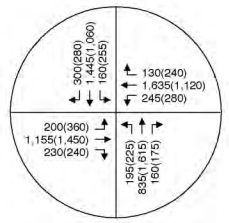
9. RESEDA BL
DEVONSHIRE ST



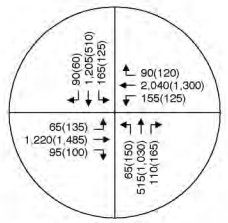
10. LINDLEY AV
DEVONSHIRE ST



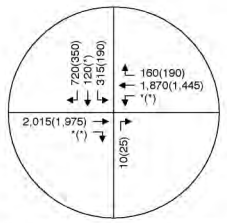
11. ZELZAH AV
DEVONSHIRE ST



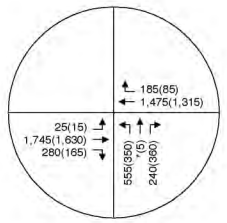
12. BALBOA BL
DEVONSHIRE ST



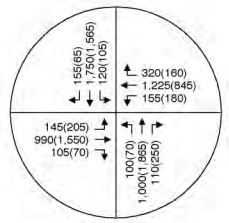
13. WOODLEY AV
DEVONSHIRE ST



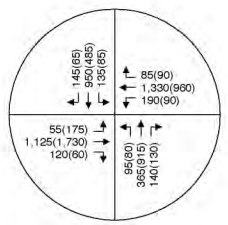
14. I-405 SB RAMPS/BLUCHER AV
DEVONSHIRE ST



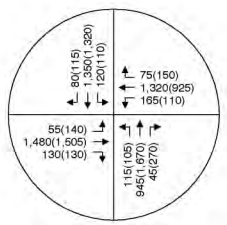
15. I-405 NB RAMPS
DEVONSHIRE ST



16. TAMPA AV
LASSEN ST



17. WILBUR AV
LASSEN ST



18. RESEDA BL
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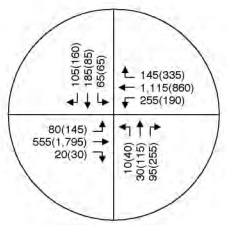
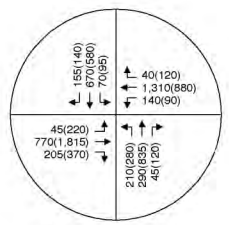
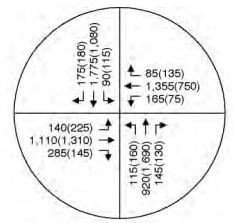


19. LINDLEY AV
LASSEN ST



20. ZELZAH AV
LASSEN ST



21. BALBOA BL
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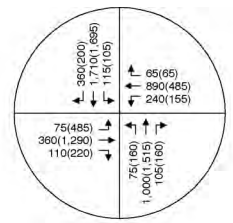

22. TAMPA AV
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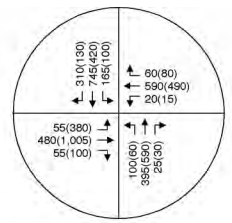

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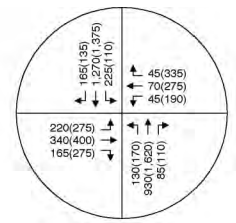
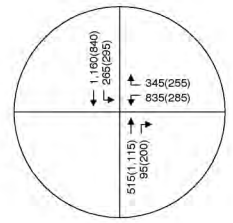
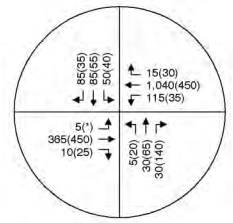
PLUMMER ST



24. RESEDA BL
PLUMMER ST



25. ZELZAH AV
PLUMMER ST



26. WHITE OAK AV
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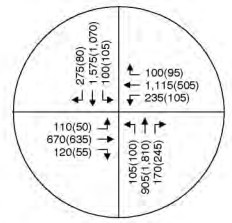
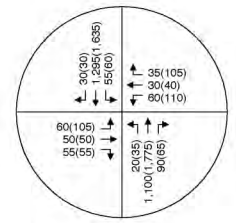
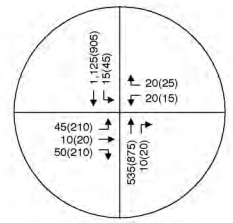


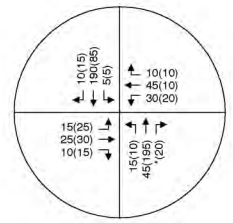
27. BALBOA BL
PLUMMER ST



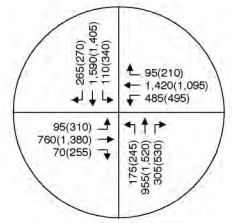
28. RESEDA BL
PRAIRIE ST



29. ZELZAH AV
PRAIRIE ST



30. WHITE OAK AV
PRAIRIE ST



31. TAMPA AV
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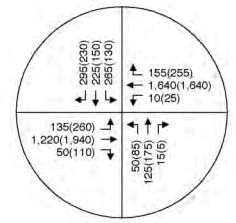
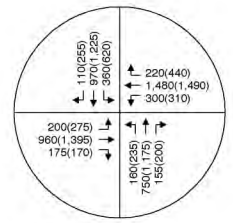
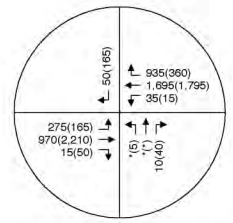


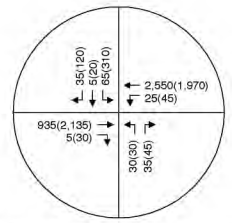
32. WILBUR AV
NORDHOFF ST



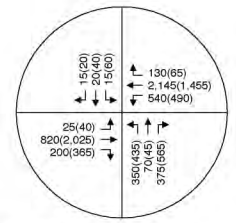
33. RESEDA BL
NORDHOFF ST



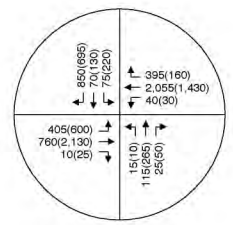
34. DARBY AV
NORDHOFF ST



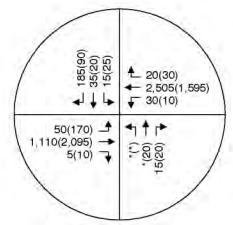
35. W UNIVERSITY DR/ÉTIWANDA AV
NORDHOFF ST



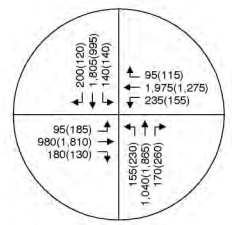
36. LINDLEY AV
NORDHOFF ST



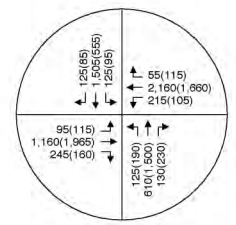
37. ZELZAH AV
NORDHOFF ST



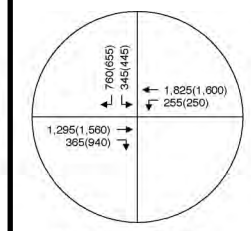
38. WHITE OAK AV
NORDHOFF ST



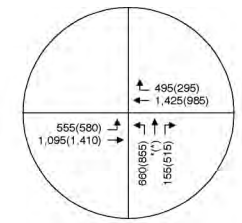
39. BALBOA BL
NORDHOFF ST



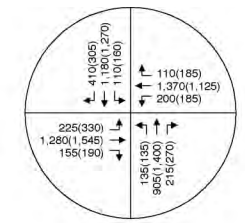
40. WOODLEY AV
NORDHOFF ST



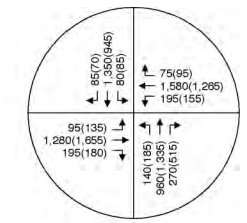
41. I-405 SB RAMPS
NORDHOFF ST



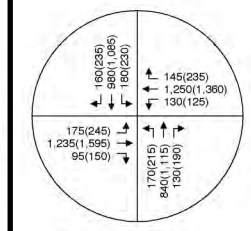
42. I-405 NB RAMPS
NORDHOFF ST



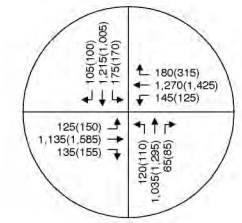
43. RESEDA BL
PARTHENIA ST



44. LINDLEY AV
PARTHENIA ST



45. RESEDA BL
ROSCOE BL



46. LINDLEY AV
ROSCOE BL

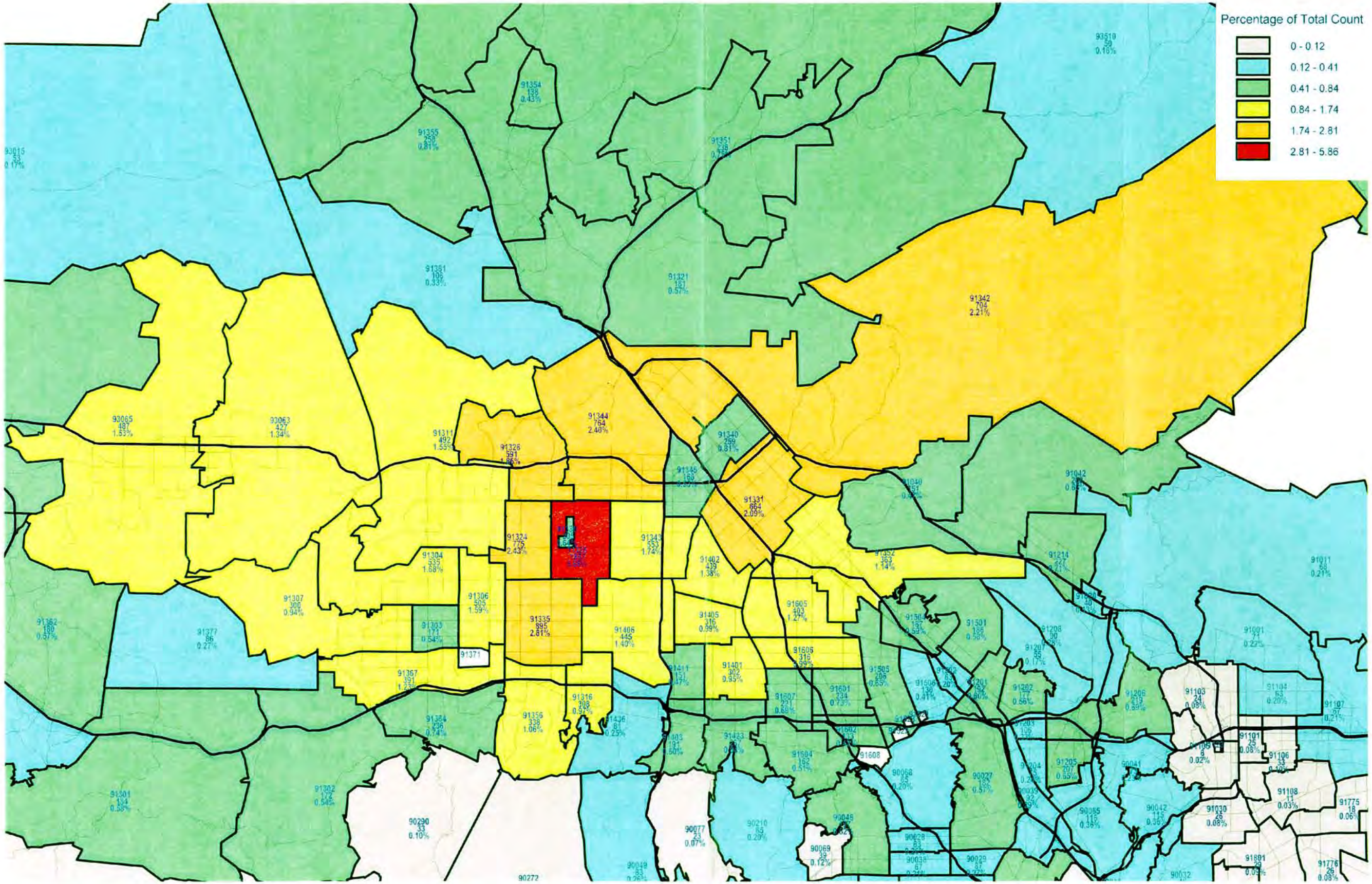
Legend:
XX(XX) = AM(PM) peak hour traffic volumes (rounded to the nearest five vehicles)
* = Negligible volume

SOURCE: Kaku Associates – September 2005

FIGURE **3.8-6**

Future Year 2035 Without Project Traffic Volumes

750-01•10/05



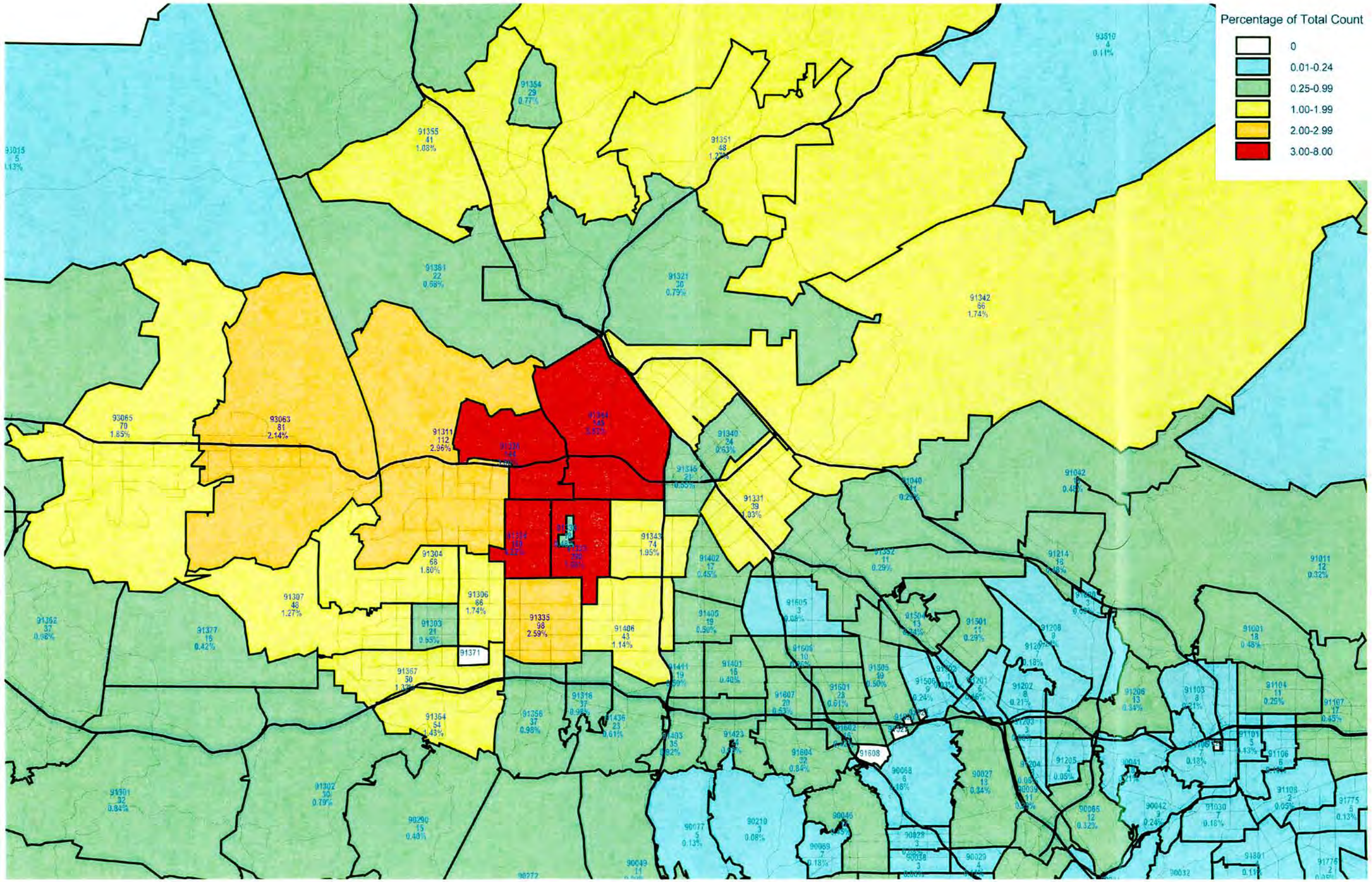
NOT TO SCALE

SOURCE: Kaku Associates – September 2005

FIGURE **3.8-7**

Distribution of CSUN Students by Zip Code

750-01•10/05



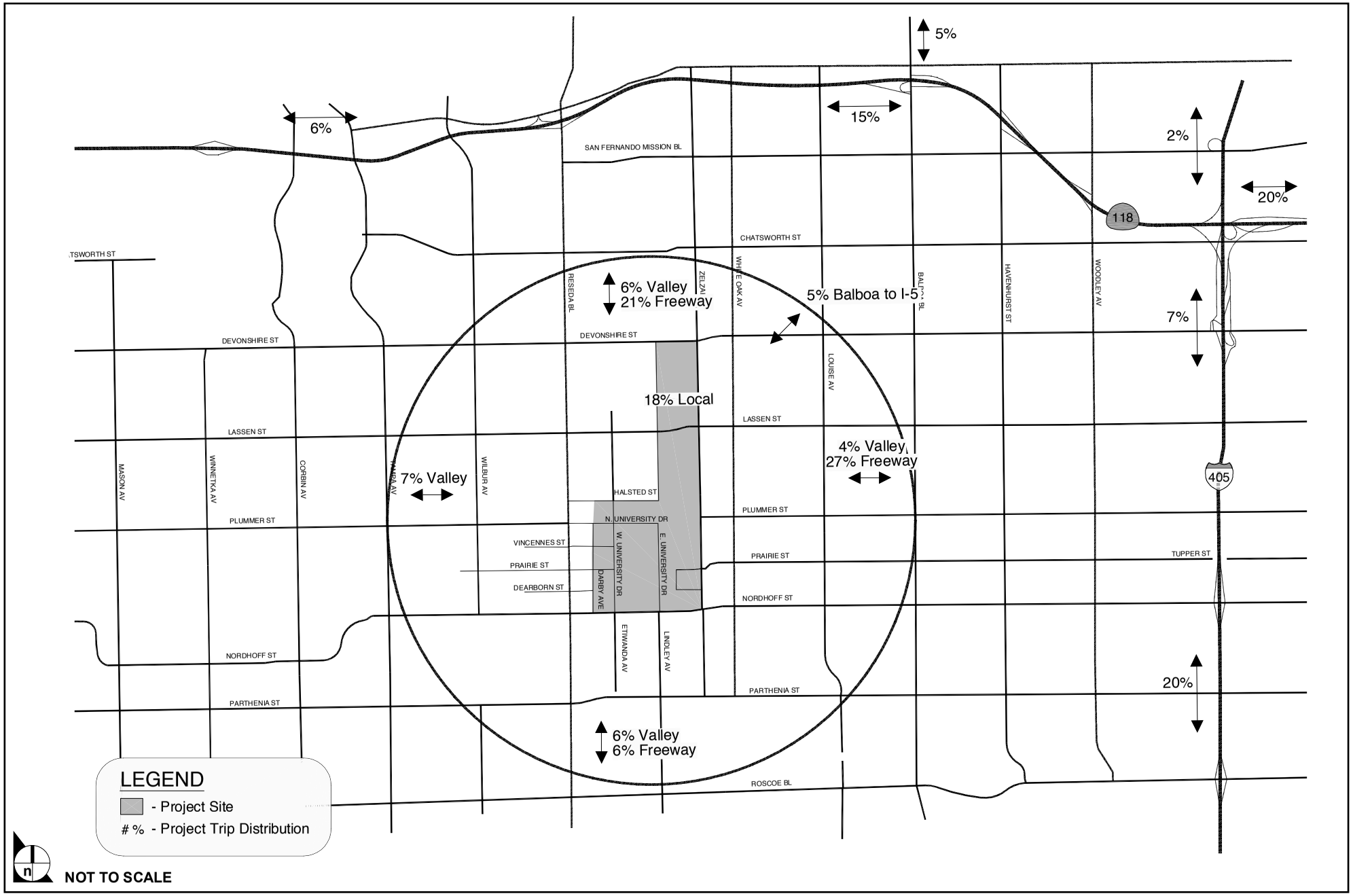
NOT TO SCALE

SOURCE: Kaku Associates – September 2005

FIGURE **3.8-8**

Distribution of CSUN Staff/Faculty by Zip Code

750-01•10/05

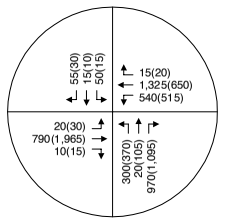


SOURCE: Kaku Associates – September 2005

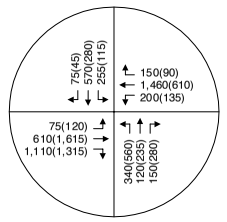
FIGURE **3.8-9**

Project Trip Distribution

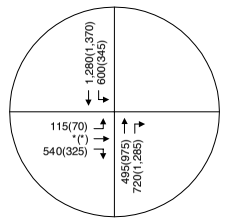
750-001•10/05



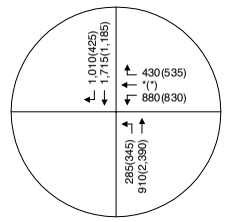
1. AMIGO AV/SR-118 WB RAMPS
RINALDI ST



2. RESEDA BL
RINALDI ST



3. RESEDA BL
SR-118 EB RAMPS



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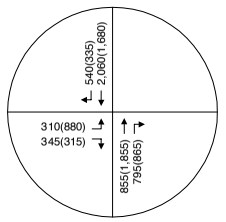
SR-118 WB RAMPS



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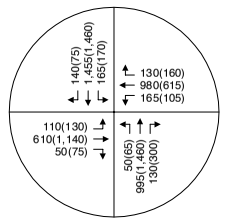
SR-118 EB RAMPS



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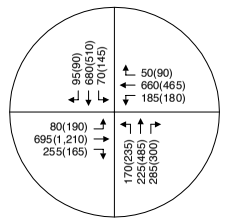
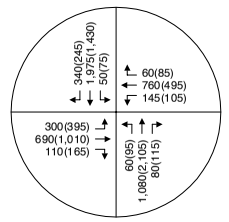
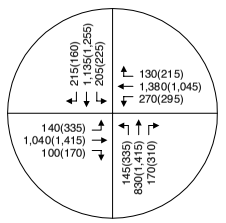
CHATSWORTH ST



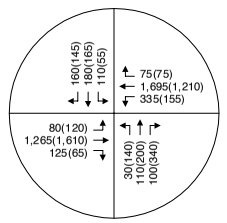
7. ZELZAH AV
CHATSWORTH ST



8. BALBOA BL
CHATSWORTH ST



9. RESEDA BL
DEVONSHIRE ST



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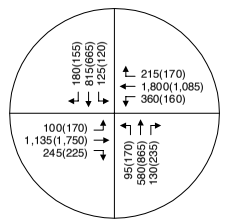
DEVONSHIRE ST



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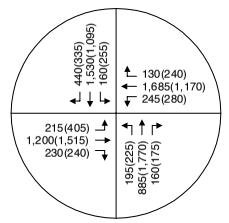

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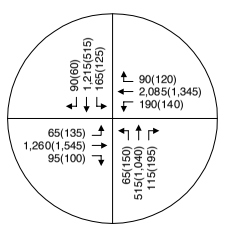
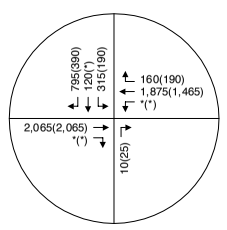
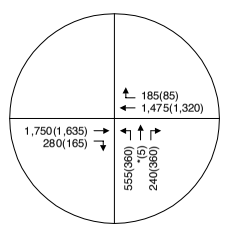


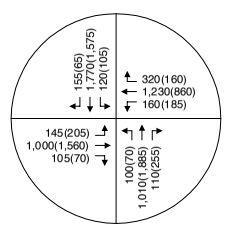
13. WOODLEY AV
DEVONSHIRE ST



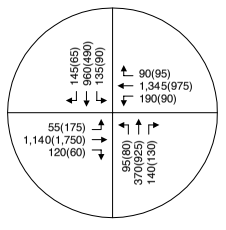
14. I-405 SB RAMPS/BLUCHER AV
DEVONSHIRE ST



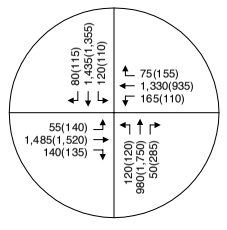
15. I-405 NB RAMPS
DEVONSHIRE ST



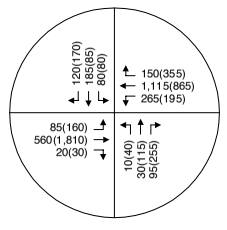
16. TAMPA AV
LASSEN ST



17. WILBUR AV
LASSEN ST



18. RESEDA BL
LASSEN ST



19. LINDLEY AV
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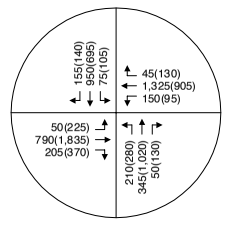

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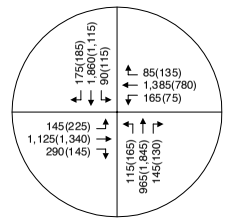

21. BALBOA BL
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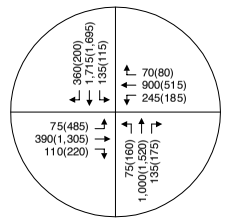

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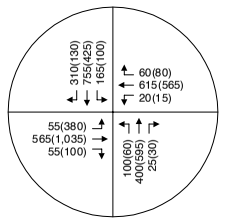

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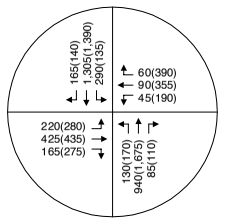

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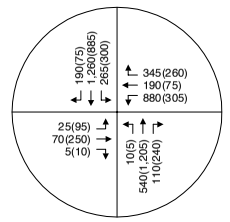

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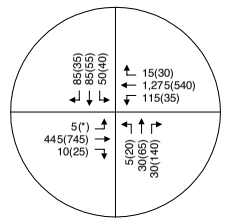

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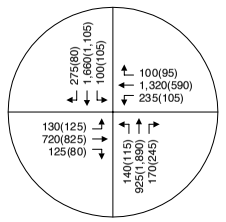

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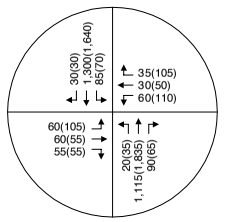
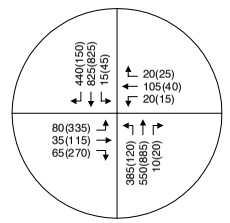


28. RESEDA BL
PRAIRIE ST



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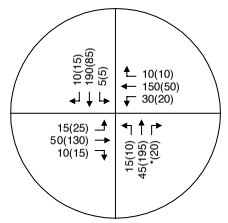
PRAIRIE ST



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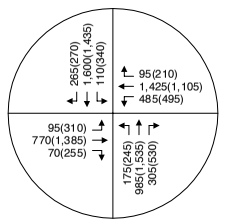
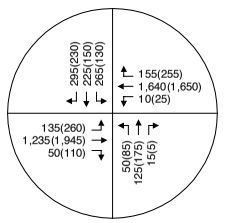
PRAIRIE ST



31. TAMPA AV
NORDHOFF ST



32. WILBUR AV
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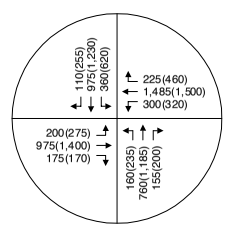

33. RESEDA BL
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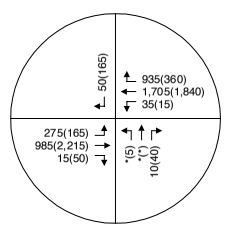
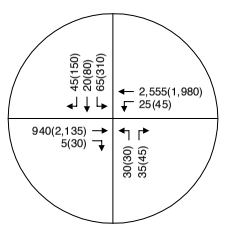
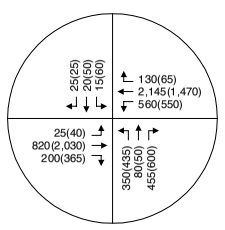


34. DARBY AV
NORDHOFF ST



35. W UNIVERSITY DR/ETIWANDA AV
NORDHOFF ST



36. LINDLEY AV
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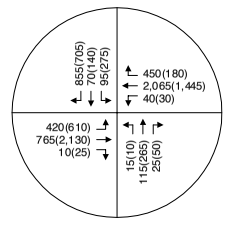
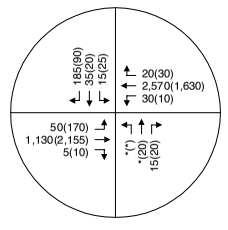
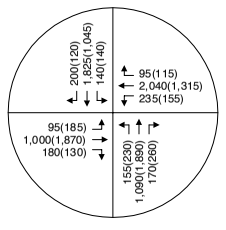


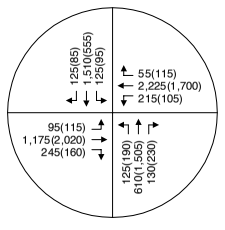
37. ZELZAH AV
NORDHOFF ST



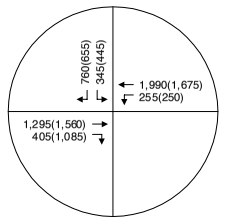
38. WHITE OAK AV
NORDHOFF ST



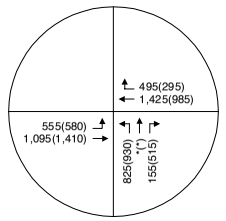
39. BALBOA BL
NORDHOFF ST



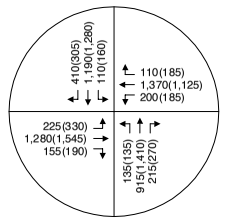
40. WOODLEY AV
NORDHOFF ST



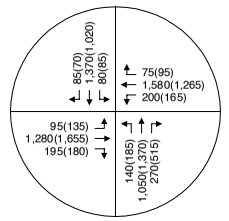
41. I-405 SB RAMPS
NORDHOFF ST



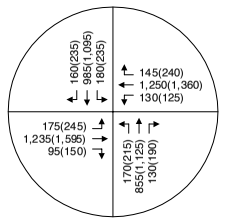
42. I-405 NB RAMPS
NORDHOFF ST



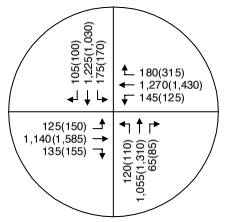
43. RESEDA BL
PARTHENIA ST



44. LINDLEY AV
PARTHENIA ST



45. RESEDA BL
ROSCOE BL



46. LINDLEY AV
ROSCOE BL

Legend:
XX(XX) = AM(PM) peak hour traffic volumes (rounded to the nearest five vehicles)
* = Negligible volume

SOURCE: Kaku Associates – September 2005

FIGURE **3.8-10**

Year 2035 With Project Traffic Volumes

750-01•10/05

volumes were then added to the projected year 2035 without project volumes. The resulting traffic volumes are illustrated in **Figure 3.8-10, Year 2035 With Project Traffic Volumes**.

Future Year 2035 With Project Intersection Level of Service, Average Vehicular Delay, and V/C Ratios

The traffic volumes discussed above were used to determine the LOS, average vehicular delay and V/C ratio for the 46 analyzed intersections. A summary of the calculations are provided in **Table 3.8-9, Year 2035 With Project Intersection Level of Service, Average Vehicular Delay, and V/C Ratios. Table 3.8-10, Project Intersection Increase in V/C and Impact Conclusion**, shows the difference in V/C ratio that would occur as a result of Master Plan implementation and states if that difference would result in a significant impact. As shown, 34 intersections are projected to operate at LOS E or F during one or both peak hours, resulting in a significant impact.

Table 3.8-9
Year 2035 With Project Intersection Level of Service, Average Vehicular Delay, and V/C Ratios

		Future Without Project						Future With Project					
		AM			PM			AM			PM		
#	Intersection	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
1	Amigo Avenue, SR-118 West Bound Ramps/Rinaldi Street	D		0.859	F		1.143	D		0.875	F		1.186
2	Reseda Boulevard/Rinaldi Street	B		0.681	D		0.893	B		0.689	E		0.905
3	Reseda Boulevard/SR-118 East Bound Ramps	B		0.609	B		0.687	B		0.635	C		0.705
4	Balboa Boulevard/SR-118 West Bound Ramps	F		1.108	C		0.778	F		1.150	D		0.809
5	Balboa Boulevard/SR-118 East Bound Ramps	A		0.573	D		0.852	B		0.605	D		0.872
6	Reseda Boulevard/Chatsworth Street	E		0.925	F		1.084	E		0.937	F		1.105
7	Zelzah Avenue/Chatsworth Street	B		0.632	D		0.827	B		0.658	D		0.870
8	Balboa Boulevard/Chatsworth Street	E		0.956	E		0.931	F		1.016	E		0.982
9	Reseda Boulevard/Devonshire Street	E		0.9007	F		1.027	E		0.918	F		1.063
10	Lindley Avenue/Devonshire Street	C		0.791	C		0.702	D		0.817	C		0.739
11	Zelzah Avenue/Devonshire Street	E		0.928	E		0.901	E		0.992	F		1.007
12	Balboa Boulevard/Devonshire Street	F		1.067	F		1.165	F		1.145	F		1.227
13	Woodley Avenue/Devonshire Street	F		1.155	D		0.891	F		1.175	E		0.929
14	I-405 South Bound Ramps, Blucher Avenue/Devonshire Street	D		0.866	B		0.623	E		0.925	B		0.668
15	I-405 North Bound Ramps/Devonshire Street	A		0.566	A		0.568	A		0.567	A		0.569
16	Tampa Avenue/Lassen Street	F		1.099	F		1.199	F		1.107	F		1.211

		Future Without Project						Future With Project					
		AM			PM			AM			PM		
#	Intersection	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
17	Wilbur Avenue/Lassen Street	E		0.967	F		1.062	E		0.975	F		1.074
18	Reseda Boulevard/Lassen Street	F		1.201	F		1.339	F		1.238	F		1.379
19	Lindley Avenue/Lassen Street	C		0.721	F		1.056	C		0.744	F		1.071
20	Zelzah Avenue/Lassen Street	D		0.845	F		1.171	E		0.945	F		1.219
21	Balboa Boulevard/Lassen Street	F		1.086	F		1.016	F		1.117	F		1.061
22	Tampa Avenue/Plummer Street	E		0.935	F		1.239	E		0.940	F		1.266
23	Wilbur Avenue/Plummer Street	B		0.675	C		0.713	B		0.687	C		0.741
24	Reseda Boulevard/Plummer Street	C		0.761	F		1.056	D		0.803	F		1.131
25	Zelzah Avenue/Plummer Street	B		0.694	D		0.805	C		0.791	E		0.979
26	White Oak Avenue/Plummer Street*	F	*	0.509	F	51.6	0.518	F	**	0.588	F	**	0.712
27	Balboa Boulevard/Plummer Street	E		0.959	D		0.824	F		1.082	E		0.914
28	Reseda Boulevard/Prairie Street	B		0.603	D		0.895	B		0.615	E		0.930
29	Zelzah Avenue/Prairie Street	A		0.431	A		0.496	C		0.702	B		0.631
30	White Oak Avenue/Prairie Street*	A	8.2	0.145	A	8.2	0.143	A	8.8	0.217	A	8.8	0.207
31	Tampa Avenue/Nordhoff Street	E		0.925	F		1.228	E		0.929	F		1.232
32	Wilbur Avenue/Nordhoff Street	C		0.718	D		0.806	C		0.718	D		0.808
33	Reseda Boulevard/Nordhoff Street	E		0.909	F		1.254	E		0.914	F		1.265
34	Darby Avenue/Nordhoff Street*	F	*	0.658	F	*	0.624	F	**	0.660	F	**	0.632
35	W University Drive, Etiwanda Avenue/Nordhoff Street	B		0.667	C		0.706	B		0.674	C		0.726
36	E University Drive, Lindley	D		0.820	F		1.231	D		0.884	F		1.289

		Future Without Project						Future With Project					
		AM			PM			AM			PM		
#	Intersection	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
	Avenue/Nordhoff Street												
37	Zelzah Avenue/Nordhoff Street	E		0.913	E		0.980	E		0.928	F		1.032
38	White Oak Avenue/Nordhoff Street	C		0.768	A		0.592	C		0.783	B		0.605
39	Balboa Boulevard/Nordhoff Street	F		1.074	F		1.099	F		1.093	F		1.118
40	Woodley Avenue/Nordhoff Street	F		1.113	F		1.111	F		1.129	F		1.125
41	I-405 South Bound Ramps/Nordhoff Street	E		0.958	F		1.070	F		1.015	F		1.171
42	I-405 North Bound Ramps/Nordhoff Street	C		0.745	C		0.756	D		0.808	C		0.784
43	Reseda Boulevard/Parthenia Street	F		1.229	F		1.391	F		1.232	F		1.395
44	Lindley Avenue/Parthenia Street	F		1.195	F		1.387	F		1.204	F		1.405
45	Reseda Boulevard/Roscoe Boulevard	F		1.004	F		1.004	F		1.006	F		1.208
46	Lindley Avenue/Roscoe Boulevard	E		0.923	F		1.062	E		0.926	F		1.067

Source: Kaku Associates, Inc., September 2005

* *Intersection is controlled by a stop sign. The HCM 2000 stop-controlled methodology was used for the purpose of evaluating the operating condition of the intersection, and therefore, the average vehicular delay is reported. In addition the intersection was evaluated using the CMA methodology in order to evaluate the intersection according to the City of Los Angeles thresholds, and therefore, the V/C ratio is reported.*

** *Volumes exceed the limits of the Highway Capacity Manual stop-controlled software. Average delay cannot be calculated. Indicates overloaded (LOS F) conditions.*

Table 3.8-10
Project Intersection Increase in V/C and Impact Conclusion

#	Intersection	Increase in V/C		Significant Impact?	
		AM	PM	AM	PM
1	Amigo Avenue, SR-118 West Bound Ramps/ Rinaldi Street	0.016	0.043	NO	**YES**
2	Reseda Boulevard/Rinaldi Street	0.008	0.012	NO	**YES**
3	Reseda Boulevard/SR-118 East Bound Ramps	0.026	0.018	NO	NO
4	Balboa Boulevard/SR-118 West Bound Ramps	0.042	0.031	**YES**	**YES**
5	Balboa Boulevard/SR-118 East Bound Ramps	0.032	0.020	NO	**YES**
6	Reseda Boulevard/Chatsworth Street	0.012	0.021	**YES**	**YES**
7	Zelzah Avenue/Chatsworth Street	0.026	0.043	NO	**YES**
8	Balboa Boulevard/Chatsworth Street	0.060	0.051	**YES**	**YES**
9	Reseda Boulevard/Devonshire Street	0.011	0.036	**YES**	**YES**
10	Lindley Avenue/Devonshire Street	0.026	0.037	**YES**	NO
11	Zelzah Avenue/Devonshire Street	0.064	0.106	**YES**	**YES**
12	Balboa Boulevard/Devonshire Street	0.078	0.062	**YES**	**YES**
13	Woodley Avenue/Devonshire Street	0.020	0.038	**YES**	**YES**
14	I-405 South Bound Ramps, Blucher Avenue/Devonshire Street	0.059	0.045	**YES**	NO
15	I-405 North Bound Ramps/Devonshire Street	0.001	0.001	NO	NO
16	Tampa Avenue/Lassen Street	0.008	0.012	NO	**YES**
17	Wilbur Avenue/Lassen Street	0.008	0.012	NO	**YES**
18	Reseda Boulevard/Lassen Street	0.037	0.040	**YES**	**YES**
19	Lindley Avenue/Lassen Street	0.023	0.015	NO	**YES**
20	Zelzah Avenue/Lassen Street	0.100	0.048	**YES**	**YES**
21	Balboa Boulevard/Lassen Street	0.031	0.045	**YES**	**YES**
22	Tampa Avenue/Plummer Street	0.005	0.027	NO	**YES**
23	Wilbur Avenue/Plummer Street	0.012	0.028	NO	NO
24	Reseda Boulevard/Plummer Street	0.042	0.075	**YES**	**YES**
25	Zelzah Avenue/Plummer Street	0.097	0.174	**YES**	**YES**
26	White Oak Avenue/Plummer Street	0.079	0.194	**YES**	**YES**
27	Balboa Boulevard/Plummer Street	0.123	0.090	**YES**	**YES**
28	Reseda Boulevard/Prairie Street	0.012	0.035	NO	**YES**
29	Zelzah Avenue/Prairie Street	0.271	0.135	**YES**	NO
30	White Oak Avenue/Prairie Street	0.072	0.064	NO	NO
31	Tampa Avenue/Nordhoff Street	0.004	0.004	NO	NO
32	Wilbur Avenue/Nordhoff Street	0.000	0.002	NO	NO
33	Reseda Boulevard/Nordhoff Street	0.005	0.011	NO	**YES**
34	Darby Avenue/Nordhoff Street	0.002	0.008	NO	NO
35	W University Drive, Etiwanda Avenue/Nordhoff Street	0.007	0.020	NO	NO
36	E University Drive, Lindley Avenue/Nordhoff Street	0.064	0.058	**YES**	**YES**
37	Zelzah Avenue/Nordhoff Street	0.015	0.052	**YES**	**YES**
38	White Oak Avenue/Nordhoff Street	0.015	0.013	NO	NO
39	Balboa Boulevard/Nordhoff Street	0.019	0.019	**YES**	**YES**
40	Woodley Avenue/Nordhoff Street	0.016	0.014	**YES**	**YES**
41	I-405 South Bound Ramps/Nordhoff Street	0.057	0.101	**YES**	**YES**
42	I-405 North Bound Ramps/Nordhoff Street	0.063	0.028	**YES**	NO
43	Reseda Boulevard/Parthenia Street	0.003	0.004	NO	NO
44	Lindley Avenue/Parthenia Street	0.009	0.018	NO	**YES**

#	Intersection	Increase in V/C		Significant Impact?	
		AM	PM	AM	PM
45	Reseda Boulevard/Roscoe Boulevard	0.002	0.005	NO	NO
46	Lindley Avenue/Roscoe Boulevard	0.003	0.005	NO	NO

Source: Kaku Associates, Inc., September 2005

Under 2035 with project conditions, there would be 18 intersections under the ATSAC system. Of the 34 intersections with significant impacts, 16 would have the ATSAC system implemented. Those 16 intersections are listed below:

- Amigo Avenue/SR-118 westbound ramps & Rinaldi Street (int. #1)
- Reseda Boulevard & Rinaldi Street (int. #2)
- Balboa Boulevard & SR-118 westbound ramps (int. #4)
- Balboa Boulevard & SR-118 eastbound ramps (int. #5)
- Reseda Boulevard & Chatsworth Street (int. #6)
- Zelzah Avenue & Chatsworth Street (int. #7)
- Balboa Boulevard & Chatsworth Street (int. #8)
- Reseda Boulevard & Devonshire Street (int. #9)
- Lindley Avenue & Devonshire Street (int. #10)
- Zelzah Avenue & Devonshire Street (int. #11)
- Balboa Boulevard & Devonshire Street (int. #12)
- Woodley Avenue & Devonshire Street (int. #13)
- I-405 southbound ramps/Blucher Avenue & Devonshire Street (int. #14)
- Woodley Avenue & Nordhoff Street (int. #40)
- I-405 southbound ramps & Nordhoff Street (int. #41)
- I-405 northbound ramps & Nordhoff Street (int. #42)

At each of the 16 intersections with the ATSAC system in place, it is recommended that the ATCS capability be added to increase the intersection capacity by 3 percent. With an improvement of 3 percent to the intersection capacity, nine of 16 ATSAC intersections with significant impacts would be mitigated to a less than significant level, based on City of Los Angeles impact criteria. Those nine mitigated intersections are as follows:

- Reseda Boulevard & Rinaldi Street (int. #2)
- Balboa Boulevard & SR-118 eastbound ramps (int. #5)
- Reseda Boulevard & Chatsworth Street (int. #6)
- Zelzah Avenue & Chatsworth Street (int. #7)
- Reseda Boulevard & Devonshire Street (int. #9)
- Lindley Avenue & Devonshire Street (int. #10)
- Woodley Avenue & Devonshire Street (int. #13)
- Woodley Avenue & Nordhoff Street (int. #40)
- I-405 northbound ramps & Nordhoff Street (int. #42)

Impacts at the remaining seven ATSAC intersections would remain significant even after the implementation of ATCS.

The ATSAC system could be implemented on 17 of the remaining 18 intersections with significant impacts. One intersection, White Oak Avenue & Plummer Street (#26), is stop-controlled and, therefore, cannot be mitigated with the ATSAC system. The 17 signalized intersections are listed below:

- Tampa Avenue & Lassen Street (int. #16)
- Wilbur Avenue & Lassen Street (int. #17)
- Reseda Boulevard & Lassen Street (int. #18)
- Lindley Avenue & Lassen Street (int. #19)
- Zelzah Avenue & Lassen Street (int. #20)
- Balboa Boulevard & Lassen Street (int. #21)
- Tampa Avenue & Plummer Street (int. #22)
- Reseda Boulevard & Plummer Street (int. #24)
- Zelzah Avenue & Plummer Street (int. #25)
- Balboa Boulevard & Plummer Street (int. #27)
- Reseda Boulevard & Prairie Street (int. #28)
- Zelzah Avenue & Prairie Street (int. #29)
- Reseda Boulevard & Nordhoff Street (int. #33)
- East University Drive/Lindley Avenue & Nordhoff Street (int. #36)

- Zelzah Avenue & Nordhoff Street (int. #37)
- Balboa Boulevard & Nordhoff Street (int. #39)
- Lindley Avenue & Parthenia Street (int. #44)

Through implementation of the ATSAC system, significant impacts at 14 of the 17 intersections would be mitigated to less than significant levels. The 14 intersections are listed below:

- Tampa Avenue & Lassen Street (int. #16)
- Wilbur Avenue & Lassen Street (int. #17)
- Reseda Boulevard & Lassen Street (int. #18)
- Lindley Avenue & Lassen Street (int. #19)
- Balboa Boulevard & Lassen Street (int. #21)
- Tampa Avenue & Plummer Street (int. #22)
- Reseda Boulevard & Plummer Street (int. #24)
- Reseda Boulevard & Prairie Street (int. #28)
- Zelzah Avenue & Prairie Street (int. #29)
- Reseda Boulevard & Nordhoff Street (int. #33)
- East University Drive/Lindley Avenue & Nordhoff Street (int. #36)
- Zelzah Avenue & Nordhoff Street (int. #37)
- Balboa Boulevard & Nordhoff Street (int. #39)
- Lindley Avenue & Parthenia Street (int. #44)

One of the three remaining intersections, Zelzah Avenue and Lassen Street (int. #20), could be mitigated to a less than significant level with the implementation of the ATCS, in addition to the ATSAC system. Impacts at the remaining two intersections would remain significant, even with the implementation of the ATSAC and ATCS.

In addition to installation of the ATSAC and ATCS, physical improvements, such as installation of traffic signals, restriping and widening of roadways, were considered in order to mitigate impacts at the 10 analyzed intersections where significant impacts were not mitigated to less than significant levels. The installation of a traffic signal is recommended at the intersection of White Oak Avenue & Plummer Street (int. #26), along with the installation of an eastbound through lane. No roadway widening at this intersection would be required; the proposed eastbound through lane can be achieved by restriping in the

east and west legs of the intersection. However, the existing bicycle lanes on the north and south side of the street may be diminished. Restriping at the following intersections is recommended: Amigo Avenue/SR-118 Westbound Ramps & Rinaldi Street (int. #1); Balboa Boulevard & SR-118 Westbound Ramps (int. #4); Balboa Boulevard & Chatsworth Street (int. #18); Zelzah Avenue & Devonshire Street (int. #11); Zelzah Avenue & Plummer Street (int. #25); and Balboa Boulevard & Plummer Street (int. #27). Finally, roadway widening is recommended for Balboa Boulevard & Devonshire Street (int. #12); I-405 Southbound Ramps/Blucher Avenue & Devonshire Street (int. #14); and I-405 Southbound Ramps & Nordhoff Street (int. #41).

Table 3.8-11, Year 2035 With Project Intersection Level of Service, Average Vehicular Delay, and V/C Ratios With Mitigation, provides a summary of the conditions at all 46 analyzed intersections, with all forms of recommended mitigation. **Table 3.8-12, Project Intersection Increase in V/C and Impact Conclusion With Mitigation,** summarizes the resulting change in V/C ratio after mitigation is implemented as well as provides a conclusion regarding significant impacts. As shown, even with mitigation, impacts would remain significant at the following intersections:

- Zelzah Avenue & Devonshire Street (int. #11) during the AM peak hour; and
- Balboa Boulevard & Devonshire Street (int. #12) during the PM peak hour.

Table 3.8-11
Year 2035 With Project Intersection Level of Service, Average Vehicular Delay, and V/C Ratios With Mitigation

		Future With Project						Future With Project With Mitigation					
		AM			PM			AM			PM		
#	Intersection	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
1	Amigo Avenue, SR-118 West Bound Ramps/Rinaldi Street	D		0.875	F		1.186	C		0.761	F		1.067
2	Reseda Boulevard/Rinaldi Street	B		0.689	E		0.905	B		0.659	D		0.875
3	Reseda Boulevard/SR-118 East Bound Ramps	B		0.635	C		0.705	B		0.635	C		0.705
4	Balboa Boulevard/SR-118 West Bound Ramps	F		1.150	D		0.809	D		0.889	C		0.779
5	Balboa Boulevard/SR-118 East Bound Ramps	B		0.605	D		0.872	A		0.575	D		0.842
6	Reseda Boulevard/Chatsworth Street	E		0.937	F		1.105	E		0.907	F		1.075
7	Zelzah Avenue/Chatsworth Street	B		0.658	D		0.870	B		0.628	D		0.840
8	Balboa Boulevard/Chatsworth Street	F		1.016	E		0.982	D		0.890	E		0.903
9	Reseda Boulevard/Devonshire Street	E		0.918	F		1.063	D		0.888	F		1.033
10	Lindley Avenue/Devonshire Street	D		0.817	C		0.739	C		0.787	C		0.709
11	Zelzah Avenue/Devonshire Street	E		0.992	F		1.007	E		0.962	C		0.782
12	Balboa Boulevard/Devonshire Street	F		1.145	F		1.227	F		1.008	F		1.197
13	Woodley Avenue/Devonshire Street	F		1.175	E		0.929	F		1.145	D		0.899
14	I-405 South Bound Ramps, Blucher Avenue/Devonshire Street	E		0.925	B		0.668	B		0.656	A		0.506
15	I-405 North Bound Ramps/Devonshire Street	A		0.567	A		0.569	A		0.567	A		0.569
16	Tampa Avenue/Lassen Street	F		1.107	F		1.211	F		1.037	F		1.141

		Future With Project						Future With Project With Mitigation					
		AM			PM			AM			PM		
#	Intersection	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
17	Wilbur Avenue/Lassen Street	E		0.975	F		1.074	E		0.905	F		1.004
18	Reseda Boulevard/Lassen Street	F		1.238	F		1.379	F		1.168	F		1.309
19	Lindley Avenue/Lassen Street	C		0.744	F		1.071	B		0.674	F		1.001
20	Zelzah Avenue/Lassen Street	E		0.945	F		1.219	D		0.845	F		1.119
21	Balboa Boulevard/Lassen Street	F		1.117	F		1.061	F		1.047	E		0.991
22	Tampa Avenue/Plummer Street	E		0.940	F		1.266	D		0.870	F		1.196
23	Wilbur Avenue/Plummer Street	B		0.687	C		0.741	B		0.687	C		0.741
24	Reseda Boulevard/Plummer Street	D		0.803	F		1.131	C		0.733	F		1.061
25	Zelzah Avenue/Plummer Street	C		0.791	E		0.979	B		0.699	C		0.704
26	White Oak Avenue/Plummer Street*	F	**	0.588	F	**	0.712	A	**	0.588	A	**	0.456
27	Balboa Boulevard/Plummer Street	F		1.082	E		0.914	E		0.949	D		0.814
28	Reseda Boulevard/Prairie Street	B		0.615	E		0.930	A		0.545	D		0.860
29	Zelzah Avenue/Prairie Street	C		0.702	B		0.631	B		0.632	A		0.561
30	White Oak Avenue/Prairie Street*	A	8.8	0.217	A	8.8	0.207	A		8.8	A		8.8
31	Tampa Avenue/Nordhoff Street	E		0.929	F		1.232	E		0.929	F		1.232
32	Wilbur Avenue/Nordhoff Street	C		0.718	D		0.808	C		0.718	D		0.808
33	Reseda Boulevard/Nordhoff Street	E		0.914	F		1.265	D		0.844	F		1.195
34	Darby Avenue/Nordhoff Street*	F	**	0.660	F	**	0.632	A	**	0.590	A	**	0.562
35	W University Drive, Etiwanda Avenue/Nordhoff Street	B		0.674	C		0.726	B		0.674	C		0.726
36	E University Drive, Lindley Avenue/Nordhoff Street	D		0.884	F		1.289	D		0.814	F		1.219
37	Zelzah Avenue/Nordhoff Street	E		0.928	F		1.032	D		0.858	E		0.962
38	White Oak Avenue/Nordhoff Street	C		0.783	B		0.605	C		0.783	B		0.605
39	Balboa Boulevard/Nordhoff Street	F		1.093	F		1.118	F		1.023	F		1.048
40	Woodley Avenue/Nordhoff Street	F		1.129	F		1.125	F		1.099	F		1.095
41	I-405 South Bound	F		1.015	F		1.171	D		0.891	F		1.068

		Future With Project						Future With Project With Mitigation					
		AM			PM			AM			PM		
#	Intersection	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
	Ramps/Nordhoff Street												
42	I-405 North Bound Ramps/Nordhoff Street	D		0.808	C		0.784	C		0.778	C		0.754
43	Reseda Boulevard/Parthenia Street	F		1.232	F		1.395	F		1.232	F		1.395
44	Lindley Avenue/Parthenia Street	F		1.204	F		1.405	F		1.134	F		1.335
45	Reseda Boulevard/Roscoe Boulevard	F		1.006	F		1.208	F		1.006	F		1.208
46	Lindley Avenue/Roscoe Boulevard	E		0.926	F		1.067	E		0.926	F		1.067

Source: Kaku Associates, Inc., September 2005

* *Intersection is controlled by a stop sign. The HCM 2000 stop-controlled methodology was used for the purpose of evaluating the operating condition of the intersection, and therefore, the average vehicular delay is reported. In addition the intersection was evaluated using the CMA methodology in order to evaluate the intersection according to the City of Los Angeles thresholds, and therefore, the V/C ratio is reported.*

** *Volumes exceed the limits of the Highway Capacity Manual stop-controlled software. Average delay cannot be calculated. Indicates overloaded (LOS F) conditions.*

Table 3.8-12
Project Intersection Increase in V/C and Impact Conclusion With Mitigation

#	Intersection	Increase in V/C		Significant Impact?	
		AM	PM	AM	PM
1	Amigo Avenue, SR-118 West Bound Ramps/Rinaldi Street	-0.098	-0.076	NO	NO
2	Reseda Boulevard/Rinaldi Street	-0.022	-0.018	NO	NO
3	Reseda Boulevard/SR-118 East Bound Ramps	0.026	0.018	NO	NO
4	Balboa Boulevard/SR-118 West Bound Ramps	-0.219	0.001	NO	NO
5	Balboa Boulevard/SR-118 East Bound Ramps	0.002	-0.010	NO	NO
6	Reseda Boulevard/Chatsworth Street	-0.018	-0.009	NO	NO
7	Zelzah Avenue/Chatsworth Street	-0.004	0.013	NO	NO
8	Balboa Boulevard/Chatsworth Street	-0.066	-0.028	NO	NO
9	Reseda Boulevard/Devonshire Street	-0.019	0.006	NO	NO
10	Lindley Avenue/Devonshire Street	-0.004	0.007	NO	NO
11	Zelzah Avenue/Devonshire Street	0.034	-0.119	**YES**	NO
12	Balboa Boulevard/Devonshire Street	-0.059	0.032	NO	**YES**
13	Woodley Avenue/Devonshire Street	-0.010	0.008	NO	NO
14	I-405 South Bound Ramps, Blucher Avenue/Devonshire Street	-0.21	-0.117	NO	NO
15	I-405 North Bound Ramps/Devonshire Street	0.001	0.001	NO	NO
16	Tampa Avenue/Lassen Street	-0.062	-0.058	NO	NO
17	Wilbur Avenue/Lassen Street	-0.062	-0.058	NO	NO
18	Reseda Boulevard/Lassen Street	-0.033	-0.030	NO	NO
19	Lindley Avenue/Lassen Street	-0.047	-0.055	NO	NO
20	Zelzah Avenue/Lassen Street	0.000	-0.052	NO	NO
21	Balboa Boulevard/Lassen Street	-0.039	-0.025	NO	NO
22	Tampa Avenue/Plummer Street	-0.065	-0.043	NO	NO
23	Wilbur Avenue/Plummer Street	0.012	0.028	NO	NO
24	Reseda Boulevard/Plummer Street	-0.028	0.005	NO	NO
25	Zelzah Avenue/Plummer Street	0.005	-0.101	NO	NO
26	White Oak Avenue/Plummer Street	0.079	-0.062	NO	NO
27	Balboa Boulevard/Plummer Street	-0.01	-0.01	NO	NO
28	Reseda Boulevard/Prairie Street	-0.058	-0.035	NO	NO
29	Zelzah Avenue/Prairie Street	0.201	0.065	NO	NO
30	White Oak Avenue/Prairie Street	0.072	0.064	NO	NO
31	Tampa Avenue/Nordhoff Street	0.004	0.004	NO	NO
32	Wilbur Avenue/Nordhoff Street	0.000	0.002	NO	NO
33	Reseda Boulevard/Nordhoff Street	-0.065	-0.059	NO	NO
34	Darby Avenue/Nordhoff Street	-0.068	-0.062	NO	NO
35	W University Drive, Etiwanda Avenue/Nordhoff Street	0.007	0.020	NO	NO
36	E University Drive, Lindley Avenue/Nordhoff Street	-0.006	-0.012	NO	NO
37	Zelzah Avenue/Nordhoff Street	-0.055	-0.018	NO	NO
38	White Oak Avenue/Nordhoff Street	0.015	0.013	NO	NO
39	Balboa Boulevard/Nordhoff Street	-0.051	-0.051	NO	NO
40	Woodley Avenue/Nordhoff Street	-0.014	-0.016	NO	NO
41	I-405 South Bound Ramps/Nordhoff Street	-0.067	-0.002	NO	NO
42	I-405 North Bound Ramps/Nordhoff Street	0.033	-0.002	NO	NO
43	Reseda Boulevard/Parthenia Street	0.003	0.004	NO	NO
44	Lindley Avenue/Parthenia Street	-0.061	-0.052	NO	NO

#	Intersection	Increase in V/C		Significant Impact?	
		AM	PM	AM	PM
45	Reseda Boulevard/Roscoe Boulevard	0.002	0.005	NO	NO
46	Lindley Avenue/Roscoe Boulevard	0.003	0.005	NO	NO

Source: Kaku Associates, Inc., September 2005.

TRAF-2: Street segment capacity impact if project traffic causes an increase in the V/C ratio on the street segment operating condition after the addition of project traffic equal to or greater than the following:

V/C ratio increase $\geq$ 0.080 if final LOS is C

V/C ratio increase $\geq$ 0.040 if final LOS is D

V/C ratio increase $\geq$ 0.020 if final LOS is E or F

TRAF-4: Neighborhood intrusion if project traffic increases the average daily traffic (ADT) volume on a local residential street in an amount equal to or greater than the following:

ADT increase > 120 trips if final ADT < 1,000

ADT increase > 12 percent if final ADT > 1,000 and < 2,000

ADT increase > 10 percent if final ADT > 2,000 and < 3,000

ADT increase > 8 percent if final ADT > 3,000

Individual components of the Master Plan would be implemented gradually over 30 years throughout the CSUN campus. Development on campus as part of the Master Plan would generate construction-related traffic. The addition of construction-related vehicles would have an adverse effect on traffic flow on neighboring residential streets, creating a significant impact. Mitigation Measure TRAF-14 requires that construction vehicle routes be planned to avoid using neighboring residential streets to the greatest extent feasible during construction operations. With implementation of this mitigation measure, construction-related impacts would be less than significant.

An analysis of the potential for impacts on streets in residential neighborhoods surrounding the CSUN campus was conducted for the eight analyzed street segments, using the City of Los Angeles significance criteria for neighborhood street traffic impacts. **Table 3.8-13, Neighborhood Street Segment ADT Analysis**, summarizes the existing, 2035 without project and 2035 with project daily traffic volumes at the eight analyzed segments. As shown, significant impacts would occur at the following three segments with full implementation of the Master Plan.

- Dearborn Street west of Darby Avenue (seg. #3)
- West University Drive/Etiwanda Avenue south of Nordhoff Street (seg. # 6)
- Prairie Street east of Zelzah Avenue (seg. # 8)

Table 3.8-13
Neighborhood Street Segment ADT Analysis

#	Classification	Existing	2035 Without Project	2035 With Project	Project-Related Increase	Percent of Final ADT	Significant Impact?
1	Collector	3,294	3,788	3,946	158	4%	NO
2	Local	3,210	3,692	3,692	0	--	NO
3	Local	2,951	3,394	3,789	395	10%	**YES**
4	Collector	5,087	5,850	6,008	158	3%	NO
5	Collector	3,195	3,674	3,674	0	--	NO
6	Collector	2,535	2,915	3,864	949	25%	**YES**
7	Collector	3,735	4,295	4,453	158	4%	NO
8	Collector	1,311	1,508	3,089	1,581	51%	**YES**

Source: Kaku Associates, Inc., September 2005.

Mitigation of neighborhood traffic intrusion impacts requires development and implementation of neighborhood traffic management plan(s) that would identify measures to make local routes less attractive to through traffic, such as turn restrictions, chokers or narrowing of street widths, diverters or semi-diverters, cul-de-sacs or street closures, speed bumps, and stop signs. Because implementation of neighborhood traffic controls on one street can cause intruding traffic to shift to other streets, an effective neighborhood traffic management plan can only be implemented on an areawide basis with all affected parties involved in development of the plan, including neighborhood residents, council representatives, planners, and traffic engineers.

The City of Los Angeles has a neighborhood traffic management process in place that includes a number of specific steps. In the event that neighbors are concerned with the potential impact of a proposed project, they may petition LADOT for a neighborhood traffic study. If traffic conditions have changed and if LADOT staff believes that the changes are attributable to the project, LADOT staff will work with the neighbors to identify traffic calming/traffic management improvements that would address the traffic problem. If the neighbors agree that the suggested solutions are workable, the improvements are installed on a trial basis. Once the improvements have been in place for a sufficient trial (usually six months), the neighbors are asked if they want the improvements to be installed on a permanent basis. If a sufficient number of neighbors approve, the improvements would be installed permanently.

As a state educational entity, CSUN is not legally responsible for funding or constructing improvements to the local or state highway system. Mitigation of these impacts would be the responsibility of public agencies other than CSUN, such as the City of Los Angeles. Furthermore, the CSUN Master Plan EIR cannot unilaterally impose the measures and, as such, impacts would remain significant for the purposes of this analysis.

In addition to the neighborhood street segment analysis above, the local residential community has expressed concern for traffic on nearby streets as a result of Master Plan implementation. In an effort to address those specific concerns, the Master Plan includes the closure of the campus entry via Etiwanda Street at Halsted Street. The result would be reduced campus-related traffic on Halsted Street and Lindley Avenue and thereby reduced impacts on those neighborhood streets.

TRAF-5: Access if the project would result in hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); inadequate emergency access or access to nearby uses; or result in hazards or barriers for pedestrians or bicyclists.

Phase 1 of the Master Plan includes the construction of a new campus entry via a new campus roadway, Matador Drive. This roadway would run north/south and would intersect with Nordhoff Street west of Zelzah Avenue and East of East University Drive. Matador Drive is proposed to enhance circulation on campus by facilitating direct vehicle access to proposed parking structures PS-G3, PS-G5, and PS-G6 and parking lot L-G2. Construction of Matador Drive would involve re-aligning Bertrand Street and closing Dearborn and Prairie Streets on the east side of campus. These activities would be conducted in conjunction with the City of Los Angeles Department of Public Works and would comply with all relevant code, regulation and policy. During these activities, adequate emergency access would be maintained and all related plans would be subject to Los Angeles Fire Department and State Fire Marshal review. Finally, implementation of Matador Drive would not result in a hazardous traffic situation or hazards or barriers for pedestrians or bicyclists. As such, impacts would be less than significant.

Emergency access to the remainder of the CSUN campus would not be substantially altered as a result of Master Plan implementation. In addition, the Los Angeles Fire Department and State Fire Marshal would review all detailed building plans as individual structures are constructed to assure that adequate emergency access is maintained. No component of the Master Plan proposes a design feature that would result in a hazardous traffic situation or incompatible uses. Master Plan implementation would not result in hazards or barriers for pedestrians or bicyclists. Rather, campus roadways would be reconfigured to reinforce the proposed pedestrian zone. All pedestrian walkways and bicycle lanes along campus perimeter streets would remain compliant with all relevant City code. Based on the above, impacts relating to emergency access would be less than significant.

TRAF-6: The transit system if the project would increase ridership beyond that which current systems and planned upgrades are designed to accommodate.

Implementation of the CSUN Master Plan would result in an increase of FTE students by approximately 10,000. A portion of these new students and any associated new staff or faculty would likely utilize the existing public transportation system to commute to the CSUN campus. This increase in ridership would be considered a potentially significant impact on the existing transit system.

One of the five CSUN Master Plan Key Features is Parking and Transportation Management. The Parking and Transportation Management component includes an Alternative Transportation Plan with a target parking demand reduction of 10 percent, as discussed above. The Alternative Transportation Plan consists of six components for achieving the parking demand reduction goal. The first component is a Multimodal Transit Center that would include a bus stop, tram stop, Metrolink pick-up and bicycle storage. This transit center would be located on the north side of Prairie Street between Darby Avenue and W University Drive. The transit hub would include parking for up to six buses. The second component of the Alternative Transportation Plan is a MTA Rapid Bus Stop on Nordhoff at the proposed Performing Arts Center (PAC). Third, the service of a shuttle to the Northridge Metrolink station, located at 8775 Wilbur Avenue, would be provided. Class and work scheduling times would be reviewed and reconfigured to reduce parking demand during peak hours as the fourth and fifth components, respectively. The sixth component is a reduction in peak traffic demand resulting from additional on-campus student and faculty / staff housing.

The Parking and Transportation Management component also includes reconfigured campus roadways to reinforce the pedestrian zone and a second intracampus tram circulator route. The existing tram route provides access from the student housing and north campus parking to the center of campus, while the proposed circular tram route would access the transit hub and the perimeter of the academic core.

Based on the above information, the CSUN Master Plan would not increase ridership on the transit system beyond that which current systems and planned upgrades are designed to accommodate, and the impact would be less than significant.

TRAF-7: Parking if the project would result in insufficient parking capacity on site or off site.

Future Year 2035 Parking Supply

Under full buildout of the Master Plan, parking supply would be reconfigured and new parking structures would be constructed. **Figure 3.8-11, Vehicle Circulation and Parking Plan,** shows the locations of the proposed parking lots and structures under full Master Plan buildout. On-campus

parking supply would consist of approximately 16,991 spaces. Off-campus parking on perimeter streets would be reduced somewhat from the current 676 spaces as a result of Bertrand Street reconfiguration and closure of Dearborn and Prairie Streets due to the installation of Matador Drive. These modifications would result in an off-campus parking reduction of 139 spaces. The total year 2035 parking supply would be 17,528 spaces and would consist of 16,991 on-campus and 537 off-campus spaces. Separate parking supply would be provided for the proposed faculty/staff housing and retail components.

Future Year 2035 Parking Demand

Tables 3.8-14, Year 2035 Parking Demand, shows the projected year 2035 parking demand for commuting students, faculty and staff and on-campus residents. As shown, the total projected parking demand, under 2035 conditions, is 15,457 spaces for those commuting to the campus and 3,394 spaces for residents. Parking for the proposed faculty/staff housing and retail components would be provided separately. The overall total projected demand is 18,851 spaces. The simple projected parking demand would result in a parking deficiency as it exceeds the proposed on-campus supply by 1323 spaces.

Parking demand was assessed in terms of circulation, in addition to the number of parking spaces needed. The current parking supply is arranged in a way that creates vehicle circulation not only within the supply, but also along campus perimeter streets, namely Zelzah Avenue and Nordhoff Street to and from the east and west of the campus. As discussed previously, campus circulation improvements include the installation of Matador Drive. In addition, parking lots and structures were located strategically to balance parking sources between the east and west portions of campus, thereby substantially improving perimeter circulation. Providing a parking supply contingency could also improve vehicular circulation. The 5 percent contingency of the projected demand is approximately 909 spaces. The additional 909 spaces are expected to improve circulation in the parking supply. As shown, the demand plus a 5 percent contingency is 16,196 spaces for commuters and 3,564 for residents. The overall project demand with a 5 percent contingency is 19,760 parking spaces.

Table 3.8-14
Year 2035 Parking Demand

User	Quantity	Rate	Demand	Demand Plus Contingency
Commuters				
Students	29,612 FTE	0.39 sp./FTE	11,549	12,126
Faculty/Staff	5,071 employees	0.58 sp./employee	2,941	3,088
Visitors	N/A	2% of FTE and faculty/staff demand	290	305
Daytime Events	*	*	677	677
Subtotal			**15,457**	**16,196**
Residents				
Students	5,388	0.63 sp./resident	3,394	3,564
Subtotal			**3,394**	**3,564**
Campus Total			**18,851**	**19,760**

Source: Traffic and Parking Study for the CSUN Master Plan, Kaku Associates, September 2005.
** Daytime event demand is based on a predetermined parking allowance for the respective venues.*
sp. = space

Parking Demand Reduction

The CSUN Master Plan includes a parking demand reduction component. The demand reduction program will consist of physical and operational measures to encourage the use of alternative travel modes and/or to shift activities away from peak demand periods.

As part of the demand reduction program, the Master Plan includes implementation of the following transit improvements on the campus:

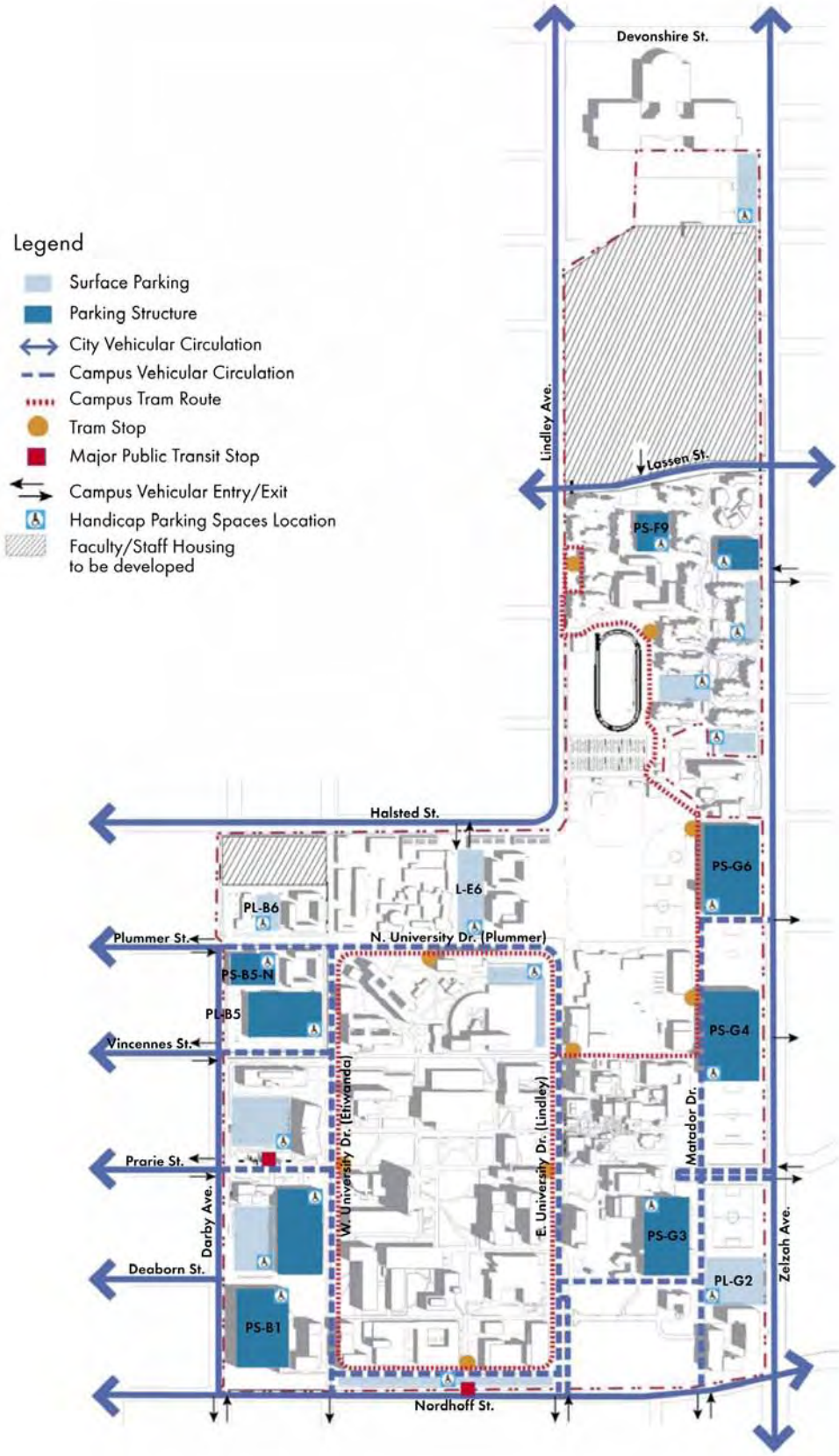
Expansion of the on-campus tram system. The current tram operates between the University Park student housing just south of Lassen Street and the campus core, terminating near the University Student Union (USU). The expanded tram system would be a second route operating as a loop on East University Drive (Lindley Avenue), North University Drive, West University Drive (Etiwanda Avenue), and the campus roadway along the north side of Nordhoff Street between East and West University Drives.

Construction of a transit center on campus at the northeast corner of Darby Avenue and Prairie Street. The transit center would serve bus routes operated by the MTA that would travel to the transit center via either Prairie Street from Reseda Boulevard or via Darby Avenue from Nordhoff Street. The transit center would serve as a connection point between the public bus system, the expanded on-campus tram system, and the CSUN Metrolink shuttle.

Provision of a Metro Rapid bus stop on Nordhoff Street at Lindley Avenue immediately adjacent to the campus. The MTA is planning to implement Metro Rapid bus service on a route that includes Reseda Boulevard from Ventura Boulevard to Nordhoff Street, Nordhoff Street east of Reseda Boulevard past the CSUN campus to Woodley Avenue, and eventually via Sepulveda Boulevard, Brand Boulevard, and San Fernando Road to the Sylmar Metrolink station. This service is currently programmed for implementation in 2006.

Finally, CSUN would implement various other transportation demand management measures to support the planned physical improvements and encourage changes in behavior by students and faculty/staff. A sampling of measures that could be implemented includes the following:

- Trip reduction program marketing, recruitment, and incentives;
- Various on-site services and amenities (e.g., cafeteria/lunch room, vending machines, Automated Teller Machines (ATM), day care center, student store, showers, bike racks, proposed neighborhood retail serving proposed faculty/staff housing on north campus);
- Transit display rack;
- On-site sale of transit passes;
- Transit passes provided at discounted rates (CSUN currently promotes use of public transit through a 60 percent public transit subsidy available to all faculty, all staff, and student assistants; program could potentially be expanded to students);
- Transit "eco-pass" whereby transit trips are made free to students and faculty/staff with a CSUN id, with CSUN reimbursing the transit agency at an agreed-upon rate;
- Bicycle program (e.g., bike racks, shower access, secure bicycle storage);
- Carpool/vanpool preferential parking spaces for employees and students;
- Rideshare matching service for employees and students;
- Vanpool support (CSUN currently promotes vanpooling by faculty and staff through the offering of a subsidy to vanpool participants);
- Guaranteed emergency ride program (CSUN currently offers such a program to registered public transit users and participants in CSUN's vanpool program);
- Personalized commute assistance offered by on-site employee transportation coordinator;
- Compressed work week;
- Changes in staff shift hours to spread commute demands over a longer period;
- Increased distance learning, on-line classes, and/or hybrid classes (with fewer on-campus class hours);



NOT TO SCALE

SOURCE: AC Martin Partners – October 2005

FIGURE **3.8-11**

Vehicle Circulation and Parking Plan

750-001•10/05

- Changes in class scheduling to reduce demands during the peak parking demand periods (typically Tuesday, Wednesday and Thursday mornings) and to make more efficient use of the parking system during periods of lower demands (e.g., afternoons, Fridays);

- Modified parking rates (e.g., reduced parking fees for carpool drivers, raised parking fees for solo drivers, permits that allow parking for a reduced number of days in a month for persons using alternative modes but needing the flexibility to drive to the campus on certain days); and

- Parking "cash-out." This is a program that allows University employees to receive a cash allowance in lieu of a parking space. The intent is to provide a monetary incentive for choosing alternative transportation.

As implementation of the Master Plan proceeds, the precise combination and nature of the measures to be implemented will be determined. The measures listed above represent potential measures; not all of the measures listed may be implemented. The Master Plan will also include a monitoring program to evaluate parking utilization, transit ridership, and average vehicle ridership (AVR) on a periodic basis to determine the extent to which the desired demand reduction is being achieved.

It is anticipated that the proposed parking reduction program could reduce parking demand during the peak periods by approximately 12.5 percent.

Table 3.8-15, Year 2035 Parking Demand With Demand Reduction Program, shows the parking demand with consideration of the effect of the demand reduction program. As shown, under this program, the campus demand would be 17,413 spaces with the 5 percent contingency and 16,616 without. Under this program and with the incorporation of the contingency to improve circulation, the campus is projected to have a parking surplus of 115 spaces. As a parking surplus would exist under 2035 conditions, impacts to parking capacity would be less than significant.

Table 3.8-15
Year 2035 Parking Demand With Demand Reduction Program

	Without Demand Reduction			With Demand Reduction	
User	**Demand**	**Demand Plus Contingency**	**Demand Reduction Rate**	**Demand**	**Demand Plus Contingency**
Commuters	15,457	16,196	12.5%	13,646	14,294
Residents	3,394	3,564	12.5%	2,970	3,119
Campus Total	**18,851**	**19,760**		**16,616**	**17,413**

Source: Traffic and Parking Study for the CSUN Master Plan, Kaku Associates, September 2005.
** Daytime event demand is based on a predetermined parking allowance for the respective venues.*
sp. = space

TRAF-3: Freeway capacity if project traffic causes an increase in the demand to capacity (D/C) ratio on a freeway segment on- or off-ramp of 2 percent or more capacity (D/C increase > 0.02), which causes or worsens LOS F conditions (D/C > 1.00).

TRAF-8: The proposed project increases traffic demand on a Congestion Management Program (CMP) facility by 2 percent of capacity (a V/C increase of 0.02 or greater), causing a LOS F. If the facility is already at LOS F, a significant impact would occur when the proposed project increases traffic demand on a CMP facility by 2 percent of capacity.

TRAF-9: The project results in a substantial increase in ridership on the existing public transit system, creating capacity shortages on the system and thereby necessitating system improvements to accommodate additional transit service.

This section evaluates project-related impacts on the CMP system. The analysis was conducted in accordance with the transportation impact analysis procedures outlined in the MTA CMP requirements.

Regional Arterial Streets

As stated previously, major regional arterial streets in the vicinity of the CSUN campus include Topanga Canyon Boulevard (SR-27), Victory Boulevard, and Ventura Boulevard. According to the MTA CMP, there are eight arterial monitoring stations located within a 5-mile radius of the University. They are listed as follows:

- Victory Boulevard at Balboa Boulevard
- Victory Boulevard at Reseda Boulevard
- Victory Boulevard at Winnetka Avenue
- Victory Boulevard at Sepulveda Boulevard
- Topanga Canyon Boulevard at Devonshire Street
- Topanga Canyon Boulevard at Roscoe Boulevard
- Topanga Canyon Boulevard at Route 118 westbound ramps
- Ventura Boulevard at Winnetka Avenue

All of the monitoring stations are either located to the west or south of the University and are at least 4 miles from the campus.

The LACMTA CMP program states that a CMP arterial intersection analysis must be conducted if 50 or more peak hour project trips are added to a CMP arterial intersection. It is expected that 6 percent of the

project traffic would originate from areas south of the project and 7 percent to and from the areas to the west of the project. Fifty project trips represent approximately 3 percent of the total PM peak hour project trips.

The street network immediately adjacent to the campus is expected to be the most concentrated locations of project trips. The 7 percent of project traffic to and from the west is expected to use east/west arterials such as Devonshire Street, Lassen Street, Plummer Street, and Nordhoff Street. It is assumed that the 7 percent of project traffic would disperse among the east/west arterials, resulting in less than 50 trips added to CMP arterial intersections located at least 4 miles to the west. Likewise, the 6 percent of project traffic to and from the south is assumed to disperse among north/south arterials such as Lindley Avenue, Reseda Boulevard, and Wilbur Avenue, resulting in less than 50 trips added to CMP arterial intersections located at least 4 miles to the south. As such, no further traffic analysis on CMP arterials is required and project impacts on CMP arterial monitoring intersections would be less than significant.

Regional Highway System

Using the University's zip code analysis, the geographic locations of student, faculty/staff residents were taken into consideration when identifying the freeways used to get to campus. Students and faculty/staff who reported zip codes along the I-405 freeway for example, were expected to use it to access the campus. The percentage traveling along each segment of the freeway was determined based on the proximity of the reported percentage at zip codes along a particular freeway.

The proposed project is expected to add more new trips to the segments of SR-118 and I-405 within the project area than to those freeway segments either further to the east or west along the SR-118 freeway or to segments further north and south along the I-405 freeway. Thus, the maximum level of project impact on the freeway system would be expected at these locations. The selection of freeway routes for analysis was determined by a combination of the estimated number of project trips added and the locations of nearby CMP freeway monitoring stations. It was assumed that current geographic draw of the campus would remain the same at Master Plan buildout.

Zip code data showed approximately 6 percent of the current campus trips arrived at CSUN on SR-118 west of Tampa Avenue, approximately 15 percent of the project trips along the SR-118 between Tampa Avenue and the I-405 junction and approximately 20 percent east of the I-405 junction. Along the I-405, zip code data showed approximately 2 percent of the current campus trips arrived at CSUN from north of the SR-118 junction, approximately 7 percent between the SR-118 junction and the Nordhoff Street interchange and approximately 20 percent from south of the Nordhoff Street interchange.

Along with the CMP significant traffic impact criteria and the locations of the CMP freeway monitoring stations, it was determined that segments of the SR-118 and I-405 freeways would be analyzed. There would be fewer than 150 project trips traveling along the nearby US-101, I-5, I-210, SR-170, and SR-134. The following five CMP freeway-monitoring stations located within a 10-mile radius of CSUN, along the SR-118 and I-405 freeways were analyzed:

Along SR-118
- east of Woodley Avenue
- at LA/Ventura County Line
- west of Junction Route 210

Along I-405
- north of Roscoe Boulevard
- south of Mulholland Drive

In addition to the specific CMP monitoring stations, all segments along the SR-118 between the Los Angeles/Ventura County Line to the west and the I-210 junction to the east were included in the analysis. All segments along the I-405 between the I-5 junction to the north and the segment just south of the Mulholland Drive interchange to the south were included in the analysis.

The segment analyzed along the Ronald Reagan Freeway spans from the Ventura/Los Angeles County Line to the junction at I-210. The section from Balboa Boulevard to the I-405 junction in the westbound direction is currently operating at LOS F during one or both peak periods. LOS analysis showed that operations in the eastbound direction are better (LOS E or better) with only the segment between Reseda Boulevard and Balboa Boulevard operating at LOS F in the afternoon peak period.

The analyzed segment of San Diego Freeway spans from the junction at the I-5 to the segment just south of the Mulholland Drive interchange. In the northbound direction, current LOS analysis showed that I-405 is operating at LOS D or better with the exception of the segment between the Mulholland Drive interchange and the US 101 junction. At this particular segment, I-405 is operating at LOS F during the afternoon peak period.

Freeway operations in the southbound direction also show good levels of service (LOS E or better) along most segments with the exception of two locations: the segment between the Getty Center Drive interchange and the Mulholland Drive interchange is operating at LOS F during the morning peak period and the segment between Nordhoff Street and the SR-118 junction is operating at LOS F during the morning peak period.

The existing LOS analysis indicated that there was a dominant directional traffic flow for the I-405. Traffic operations were generally worse southbound during the AM peak period and northbound during the PM peak period.

Under year 2035 conditions, implementation of the CSUN Master Plan would generate additional trips to the campus. **Table 3.8-16**, below, shows the number of project-generated trips on the analyzed freeway segments.

Table 3.8-16
Year 2035 Project Freeway Segment Trip Generation

Segment	North/Westbound		South/Eastbound	
	AM	PM	AM	PM
SR-118				
Between Tampa Ave & Reseda Blvd.	24	64	66	35
Between Reseda Blvd. & Balboa Blvd.	59	161	165	88
Between Balboa Blvd. & Havenhurst Ave.	165	88	59	161
Between & Havenhurst Ave. & Woodley Ave.	165	88	59	161
Between Woodley Ave. & I-405 Jct.	165	88	59	161
Between I-405 Jct. & I-5 Jct.	221	118	79	215
Between I-5 Jct. & San Fernando Rd.	110	59	39	107
Between San Fernando Rd. & Glenoaks Blvd.	110	59	39	107
Between Glenoaks Blvd. & I-210 Jct.	110	59	39	107
I-405				
Between Getty Center Dr. & Mulholland Dr.	143	76	51	139
Between Mulholland Dr. & I-101 Jct.	143	76	51	139
Between I-101 Jct. & Burbank Blvd.	165	88	59	161
Between Burbank Blvd. & Victory Blvd.	165	88	59	161
Between Victory Blvd. & Sherman Way Blvd.	210	112	75	204
Between Sherman Way & Roscoe Blvd.	210	112	75	204
Between Roscoe Blvd. & Nordhoff St.	221	118	79	215
Between Nordhoff St. & SR-118 Jct.	28	75	77	41

Source: Kaku Associates, Inc., September 2005.

Projected year 2035 without project peak hour traffic volumes were developed by adjusting the existing freeway mainline traffic volumes, from the Caltrans 2004 Traffic Volumes on California State Highways, using growth factors derived from the SCAG regional travel demand model on the SR-118 and I-405. A growth factor of 0.3 percent and 0.7 percent per year for AM and PM peak periods respectively was used for the SR-118 and I-405 freeways. Projected V/C ratios and levels of service with these volumes are shown in **Table 3.8-17, Year 2035 Without Project Freeway Segment Level of Service and V/C Ratios**.

Projected year 2035 with project peak hour traffic volumes were developed by adding project traffic to the 2035 without project peak hour traffic volumes. Projected V/C ratios and levels of service with these volumes are shown in **Table 3.8-18, Year 2035 With Project Freeway Segment Level of Service and V/C Ratios**. Four analyzed segments along the SR-118 freeway are projected to operate at LOS F during either

the morning or afternoon peak period, in the westbound direction; and five segments in the eastbound direction. Two analyzed segments along the I-405 are projected to operate at LOS F during either the morning or afternoon peak periods, in the northbound direction; and six segments in the southbound direction.

The project freeway segment increase in V/C and impacts conclusion is shown in **Table 3.8-19, Project Freeway Segment Increase in V/C and Impact Conclusion**. As shown, significant impacts would occur on the following analyzed freeway segments:

Westbound
- SR-118 between Balboa Boulevard and Havenhurst Avenue (AM peak period)
- SR-118 between Woodley Avenue and the I-405 (AM peak period)

Eastbound
- SR-118 between Reseda Boulevard and Balboa Boulevard (AM peak period)

No feasible mitigation measures exist to mitigate impacts to these freeway segments. Therefore, impacts would remain significant and unavoidable.

Table 3.8-17
Year 2035 Without Project Freeway Segment Level of Service and V/C Ratios

Segment	North/Westbound						South/Eastbound					
	AM			PM			AM			PM		
	Volume	V/C	LOS	Volume	V/C	LOS	Volume	V/C	LOS	Volume	V/C	LOS
SR-118												
Between Tampa Ave & Reseda Blvd.	10,855	0.99	E	8,506	0.77	C	9,077	0.92	D	10,098	1.02	F(0)
Between Reseda Blvd. & Balboa Blvd.	12,241	1.01	F(0)	9,592	0.79	D	10,236	1.03	F(0)	11,388	1.15	F(0)
Between Balboa Blvd. & Havenhurst Ave.	13,107	1.19	F(0)	10,270	0.93	D	10,960	0.91	D	12,193	1.01	F(0)
Between & Havenhurst Ave. & Woodley Ave.	14,146	1.29	F(1)	11,085	1.01	F(0)	11,829	0.90	D	13,160	1.00	E
Between Woodley Ave. & I-405 Jct.	12,367	1.25	F(0)	11,630	1.17	F(0)	10,987	0.99	E	11,528	1.05	F(0)
Between I-405 Jct. & I-5 Jct.	11,296	0.93	D	9,914	0.82	D	10,081	0.76	C	11,416	0.86	D
Between I-5 Jct. & San Fernando Rd.	7,673	0.78	D	6,734	0.68	C	6,848	0.78	D	7,754	0.88	D
Between San Fernando Rd. & Glenoaks Blvd.	7,033	0.71	C	6,173	0.62	C	6,277	0.63	C	7,108	0.72	C
Between Glenoaks Blvd. & I-210 Jct.	6,789	0.77	C	5,117	0.58	C	4,447	0.51	B	6,131	0.70	C
I-405												
Between Getty Center Dr. & Mulholland Dr.	6,379	0.58	C	11,177	1.02	F(0)	11,385	1.15	F(0)	7,877	0.80	D
Between Mulholland Dr. & I-101 Jct.	6,312	0.64	C	11,059	1.12	F(0)	11,266	0.93	D	7,794	0.64	C
Between I-101 Jct. & Burbank Blvd.	5,059	0.51	B	8,863	0.90	D	9,028	0.91	D	6,246	0.63	C
Between Burbank Blvd. & Victory Blvd.	4,789	0.48	B	9,585	0.97	E	10,088	1.02	F(0)	6,898	0.70	C
Between Victory Blvd. & Sherman Way Blvd.	4,832	0.49	B	9,671	0.98	E	10,178	1.03	F(0)	6,960	0.70	C
Between Sherman Way & Roscoe Blvd.	4,853	0.49	B	9,713	0.98	E	10,233	1.03	F(0)	6,991	0.71	C
Between Roscoe Blvd. & Nordhoff St.	5,022	0.46	B	10,267	0.93	D	10,473	1.06	F(0)	6,859	0.69	C
Between Nordhoff St. & SR-118 Jct.	5,978	0.60	C	9,298	0.94	E	11,723	1.18	F(0)	7,345	0.74	C

Source: Kaku Associates, Inc., September 2005.

Table 3.8-18
Year 2035 With Project Freeway Segment Level of Service and V/C Ratios

	North/Westbound						South/Eastbound					
	AM			PM			AM			PM		
Segment	**Volume**	**V/C**	**LOS**	**Volume**	**V/C**	**LOS**	**Volume**	**V/C**	**LOS**	**Volume**	**V/C**	**LOS**
SR-118												
Between Tampa Ave & Reseda Blvd.	10,879	0.99	E	8,570	0.78	D	9,143	0.92	D	10,133	1.02	F(0)
Between Reseda Blvd. & Balboa Blvd.	12,300	1.02	F(0)	9,753	0,81	D	10,401	1.05	F(0)	11,476	1.16	F(0)
Between Balboa Blvd. & Havenhurst Ave.	13,272	1.21	F(0)	10,358	0.94	E	11,019	0.91	D	12,354	1.02	F(0)
Between & Havenhurst Ave. & Woodley Ave.	14,311	1.30	F(1)	11,173	1.02	F(0)	11,888	0.90	D	13,321	1.01	F(0)
Between Woodley Ave. & I-405 Jct.	12,532	1.27	F(1)	11,718	1.18	F(0)	10,956	1.00	E	11,689	1.06	F(0)
Between I-405 Jct. & I-5 Jct.	11,517	0.95	E	10,032	0.83	D	10,160	0.77	C	11,631	0.88	D
Between I-5 Jct. & San Fernando Rd.	7,783	0.79	D	6,793	0.69	C	6,887	0.78	D	7,861	0.89	D
Between San Fernando Rd. & Glenoaks Blvd.	7,143	0.72	C	6,232	0.63	C	6,316	0.64	C	7,215	0.73	C
Between Glenoaks Blvd. & I-210 Jct.	6,899	0.78	D	5,176	0.59	C	4,486	0.51	B	6,238	0.71	C
I-405												
Between Getty Center Dr. & Mulholland Dr.	6,522	0.59	C	11,253	1.02	F(0)	11,436	1.16	F(0)	8,016	0.81	D
Between Mulholland Dr. & I-101 Jct.	6,455	0.65	C	11,135	1.12	F(0)	11,317	0.94	E	7,933	0.66	C
Between I-101 Jct. & Burbank Blvd.	5,224	0.53	B	8,951	0.90	D	9,087	0.92	D	6,407	0.65	C
Between Burbank Blvd. & Victory Blvd.	4,954	0.50	B	9,673	0.98	E	10,147	1.02	F(0)	7,059	0.71	C
Between Victory Blvd. & Sherman Way Blvd.	5,042	0.51	B	9,783	0.99	E	10,253	1.04	F(0)	7,164	0.72	C
Between Sherman Way & Roscoe Blvd.	5,063	0.51	B	9,825	0.99	E	10,298	1.04	F(0)	7,195	0.73	C
Between Roscoe Blvd. & Nordhoff St.	5,243	0.48	B	10,385	0.94	E	10,552	1.07	F(0)	7,074	0.71	C
Between Nordhoff St. & SR-118 Jct.	6,006	0.61	C	9,373	0.95	E	11,800	1.19	F(0)	7,386	0.75	C

Source: Kaku Associates, Inc., September 2005.

Table 3.8-19
Project Freeway Segment Increase in V/C and Impact Conclusion

	North/Westbound				South/Eastbound			
	Increase in V/C		Significant Impact?		Increase in V/C		Significant Impact?	
Segment	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
SR-118								
Between Tampa Ave & Reseda Blvd.	0.00	0.01	NO	NO	0.00	0.00	NO	NO
Between Reseda Blvd. & Balboa Blvd.	0.01	0.02	NO	NO	0.02	0.01	**YES**	NO
Between Balboa Blvd. & Havenhurst Ave.	0.02	0.01	**YES**	NO	0.00	0.01	NO	NO
Between & Havenhurst Ave. & Woodley Ave.	0.01	0.01	NO	NO	0.00	0.01	NO	NO
Between Woodley Ave. & I-405 Jct.	0.02	0.01	**YES**	NO	0.01	0.01	NO	NO
Between I-405 Jct. & I-5 Jct.	0.02	0.01	NO	NO	0.01	0.02	NO	NO
Between I-5 Jct. & San Fernando Rd.	0.01	0.01	NO	NO	0.00	0.01	NO	NO
Between San Fernando Rd. & Glenoaks Blvd.	0.01	0.01	NO	NO	0.01	0.01	NO	NO
Between Glenoaks Blvd. & I-210 Jct.	0.01	0.01	NO	NO	0.00	0.01	NO	NO
I-405								
Between Getty Center Dr. & Mulholland Dr.	0.01	0.00	NO	NO	0.01	0.01	NO	NO
Between Mulholland Dr. & I-101 Jct.	0.01	0.00	NO	NO	0.01	0.02	NO	NO
Between I-101 Jct. & Burbank Blvd.	0.02	0.00	NO	NO	0.01	0.02	NO	NO
Between Burbank Blvd. & Victory Blvd.	0.02	0.01	NO	NO	0.00	0.01	NO	NO
Between Victory Blvd. & Sherman Way Blvd.	0.02	0.01	NO	NO	0.01	0.02	NO	NO
Between Sherman Way & Roscoe Blvd.	0.02	0.01	NO	NO	0.01	0.02	NO	NO
Between Roscoe Blvd. & Nordhoff St.	0.02	0.01	NO	NO	0.01	0.02	NO	NO
Between Nordhoff St. & SR-118 Jct.	0.01	0.01	NO	NO	0.01	0.01	NO	NO

Source: Traffic and Parking Study for the CSUN Master Plan, Kaku Associates, September 2005.

Public Transit

As shown in **Table 3.8-20, CMP Transit Analysis**, an estimated increase in campus-generated transit person trips based solely on the projected increases in academic population and the north campus retail of approximately 1,059 daily trips, 88 trips during the AM peak hour, and 93 trips during the PM peak hour would occur as a result of Master Plan implementation.

The CSUN campus is located immediately adjacent to the Reseda Metro Rapid line. In addition, vehicular trip reductions due to enhanced transportation demand management measures are also anticipated as part of the proposed project. Therefore, to present a more conservative analysis, the potential future increase in transit person trips generated on the CSUN campus was also estimated assuming a 5 percent increase in the existing transit mode split, consistent with the anticipated vehicular trip reductions, to reflect proximity to the Reseda Metro Rapid line. Such an increased use of transit would apply to both existing and future persons on the CSUN campus, not just the net growth in persons. As shown in **Table 3.8-20**, under this scenario, projected net increases in transit trips generated on the campus are about 6,435 daily, 554 AM peak hour, and 568 PM peak hour trips.

Table 3.8-20
CMP Transit Analysis

	Factor	Daily	AM Peak Hour	PM Peak Hour
Existing Trips				
Vehicle Trips		58,246	5,139	5,139
Person Trips	1.24	72,225	6,372	6,372
Transit Person Trips	3.00%	2,167	191	191
Future Trips				
Vehicle Trips		86,710	7,510	7,649
Person Trips	1.24	107,520	9,312	9,485
Transit Person Trips				
Existing Mode Split	3.00%	3,226	279	285
Increased Transit Use	8.00%	8,602	745	759
Net New Trips				
Vehicle Trips				
Person Trips		35,295	2,940	3,113
Transit Person Trips				
Existing Mode Split		1,059	88	93
Increased Transit Use		**6,435**	**554**	**568**

Source: Traffic and Parking Study for the CSUN Master Plan, Kaku Associates, September 2005.

With the proposed addition of the Reseda Metro Rapid line, future transit service levels and capacity would be increased in the vicinity of the CSUN campus (along Nordhoff Street and Reseda Boulevard). The anticipated increase in service levels translates to a substantial increase in the bus frequencies over

existing levels along Nordhoff Street. While transit trips generated to and from the CSUN campus are projected to increase, significant impacts on transit system capacity are not anticipated given the number of new transit trips projected relative to the planned substantial increases in future transit system capacity. Project impacts to the local public transit system would be less than significant.

Near-Term Project-Level Analysis

As stated in **Section 2.0**, **Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Hub, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, the Science 5 facility, and 250 Faculty/Staff housing units. Phase 2 development projects include Parking Structure G6; Faculty Offices and Lecture Hall; two Lecture/Laboratory facilities; the Student Recreation Center; and 100 Faculty/Staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

TRAF-1: Intersection capacity if the project traffic causes an increase in the V/C ratio on the intersection operating condition after the addition of project traffic of one of the following:

V/C ratio increase $\geq$ 0.040 if final LOS is C

V/C ratio increase $\geq$ 0.020 if final LOS is D

V/C ratio increase $\geq$ 0.010 if final LOS is E or F

As determined in the program level analysis above, impacts at the following two intersections would remain significant despite mitigation:

- Zelzah Avenue & Devonshire Street (int. #11) during the AM peak hour; and
- Balboa Boulevard & Devonshire Street (int. #12) during the PM peak hour.

While it is undetermined when precisely over the 30-year course of Master Plan implementation impacts would become significant, it is most conservative to assume that these intersections would experience significant impacts with the implementation of the near-term projects analyzed in this EIR. Therefore, impacts on the above intersections are considered significant and unavoidable under near-term project implementation.

Impacts on the remainder of the intersections would be less than significant with the implementation of the recommended mitigation measures. As the program level analysis determined these intersections would experience less than significant impacts with mitigation under 2035 conditions, impacts would also be less than significant with near-term project implementation.

TRAF-2: Street segment capacity impact if project traffic causes an increase in the V/C ratio on the street segment operating condition after the addition of project traffic equal to or greater than the following:

V/C ratio increase $\geq$ 0.080 if final LOS is C

V/C ratio increase $\geq$ 0.040 if final LOS is D

V/C ratio increase $\geq$ 0.020 if final LOS is E or F

TRAF-4: Neighborhood intrusion if project traffic increases the average daily traffic (ADT) volume on a local residential street in an amount equal to or greater than the following:

ADT increase > 120 trips if final ADT < 1,000

ADT increase > 12 percent if final ADT > 1,000 and < 2,000

ADT increase > 10 percent if final ADT > 2,000 and < 3,000

ADT increase > 8 percent if final ADT > 3,000

Development of the near-term projects analyzed in this EIR would generate construction-related traffic. The addition of construction-related vehicles would have an adverse effect on traffic flow on neighboring residential streets, representing a significant impact. Mitigation Measure TRAF-14 requires that construction vehicle routes be planned to avoid using neighboring residential streets to the greatest extent feasible during construction operations. With implementation of this mitigation measure, construction-related impacts would be less than significant.

As determined in the program level analysis above, impacts at the following three neighborhood street segments would remain significant and unavoidable:

- Dearborn Street west of Darby Avenue (seg. #3)
- West University Drive/Etiwanda Avenue south of Nordhoff Street (seg. # 6)
- Prairie Street east of Zelzah Avenue (seg. #8)

As with the near-term intersection impacts, it is most conservative to assume that the three street segments above would experience significant impacts with near-term project implementation. Accordingly, impacts would be significant and unavoidable at analyzed street segments 3, 6, and 8 with near-term project implementation.

Impacts on the remaining analyzed neighborhood street segments were determined to be less than significant under 2035 conditions. Therefore, impacts on those street segments with near-term project implementation would also be less than significant.

TRAF-5: Access if the project would result in hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); inadequate emergency access or access to nearby uses; or result in hazards or barriers for pedestrians or bicyclists;

Emergency access to the CSUN campus would not be substantially altered as a result of near-term project implementation. In addition, the Los Angeles Fire Department and State Fire Marshall would review all detailed building plans to assure that adequate emergency access is maintained. None of the near-term projects propose a design feature that would result in a hazardous traffic situation. Finally, near-term projects would not result in hazards or barriers for pedestrians or bicyclists. Rather, consistent with the Master Plan, the near-term Master Plan projects would represent a small portion of the overall campus reconfiguration that is intended to reinforce the pedestrian zone. Near-term project impacts relating to emergency access would be less than significant.

TRAF-6: The transit system if the project would increase ridership beyond that which current systems and planned upgrades are designed to accommodate; or

As stated above the near-term projects analyzed in this EIR include the Transit Hub. The construction of the Transit Hub would serve to improve the public transit system. The remainder of the near-term projects would not generate a substantial increase in ridership and impacts would be less than significant.

TRAF-7: Parking if the project would result in insufficient parking capacity on site or off site.

The near-term projects analyzed in this EIR include Parking Structure G3 and Parking Structure G6. These structures would provide 1,994 and 2,769 new parking spaces, respectively. The remaining near-term projects would not generate a demand for parking that would exceed the supply provided by parking structures G3, G6, and existing parking sources. As such, impacts would be less than significant.

TRAF-3: Freeway capacity if project traffic causes an increase in the demand to capacity (D/C) ratio on a freeway segment on- or off-ramp of 2 percent or more capacity (D/C increase > 0.02), which causes or worsens LOS F conditions (D/C > 1.00)

TRAF-8: The proposed project increases traffic demand on a Congestion Management Program (CMP) facility by 2 percent of capacity (a V/C increase of 0.02 or greater), causing a LOS F. If the

facility is already at LOS F, a significant impact would occur when the proposed project increases traffic demand on a CMP facility by 2 percent of capacity.[4]

TRAF-9: The project results in a substantial increase in ridership on the existing public transit system, creating capacity shortages on the system and thereby necessitating system improvements to accommodate additional transit service.

Program level analysis of regional arterial streets determined that Master Plan buildout would not generate the required minimum 50 trips to local CMP arterial intersections and further analysis was, therefore, not necessary. As the near-term projects analyzed in this EIR would generate fewer trips than the full Master Plan, impacts would be less than significant and no further analysis is required.

The CMP analysis conducted for program level analysis determined that significant and unavoidable impacts would occur at the following freeway segments:

Westbound
- SR-118 between Balboa Boulevard and Havenhurst Avenue (AM peak period)
- SR-118 between Woodley Avenue and the I-405 (AM peak period)

Eastbound
- SR-118 between Reseda Boulevard and Balboa Boulevard (AM peak period)

Consistent with conservative near-term project impact determinations for intersections and neighborhood roadway segments, impacts at these freeway segments are considered significant and unavoidable under near-term project conditions.

Finally, as impacts to public transit were determined to be less than significant at the program level, impacts would be less than significant with near-term project implementation.

3.8.7 MITIGATION MEASURES

Program-Level Analysis

No feasible mitigation exists to reduce significant impacts to freeway segments, and therefore, no measures are required. Impacts would remain significant.

TRAF-1: The City of Los Angeles Adaptive Traffic Control System (ATCS) should be implemented at the following intersections, as needed, as Master Plan development projects are implemented:

- Amigo Avenue/SR-118 westbound ramps & Rinaldi Street (int. #1)

[4] Ibid.

- Reseda Boulevard & Rinaldi Street (int. #2)
- Balboa Boulevard & SR-118 westbound ramps (int. #4)
- Balboa Boulevard & SR-118 eastbound ramps (int. #5)
- Reseda Boulevard & Chatsworth Street (int. #6)
- Zelzah Avenue & Chatsworth Street (int. #7)
- Balboa Boulevard & Chatsworth Street (int. #8)
- Reseda Boulevard & Devonshire Street (int. #9)
- Lindley Avenue & Devonshire Street (int. #10)
- Zelzah Avenue & Devonshire Street (int. #11)
- Balboa Boulevard & Devonshire Street (int. #12)
- Woodley Avenue & Devonshire Street (int. #13)
- I-405 southbound ramps/Blucher Avenue & Devonshire Street (int. #14)
- Woodley Avenue & Nordhoff Street (int. #40)
- I-405 southbound ramps & Nordhoff Street (int. #41)
- I-405 northbound ramps & Nordhoff Street (int. #42)

TRAF-2: The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) system should be implemented at the following intersections, as needed, as Master Plan development projects are implemented:

- Tampa Avenue & Lassen Street (int. #16)
- Wilbur Avenue & Lassen Street (int. #17)
- Reseda Boulevard & Lassen Street (int. #18)
- Lindley Avenue & Lassen Street (int. #19)
- Zelzah Avenue & Lassen Street (int. #20)
- Balboa Boulevard & Lassen Street (int. #21)
- Tampa Avenue & Plummer Street (int. #22)
- Reseda Boulevard & Plummer Street (int. #24)
- Zelzah Avenue & Plummer Street (int. #25)
- Balboa Boulevard & Plummer Street (int. #27)

- Reseda Boulevard & Prairie Street (int. #28)
- Zelzah Avenue & Prairie Street (int. #29)
- Reseda Boulevard & Nordhoff Street (int. #33)
- East University Drive/Lindley Avenue & Nordhoff Street (int. #36)
- Zelzah Avenue & Nordhoff Street (int. #37)Balboa Boulevard & Nordhoff Street (int. #39)
- Lindley Avenue & Parthenia Street (int. #44)

TRAF-3: The intersection of White Oak Avenue & Plummer Street (int. #26) should be signalized as Master Plan development projects are implemented.

TRAF-4: An eastbound through lane should be added to the intersection of White Oak Avenue & Plummer Street (int. #26) as Master Plan development projects are implemented.

TRAF-5: The northbound approach to the intersection of Amigo Avenue/SR-118 Westbound Ramps & Rinaldi Street (int. #1) should be restriped to provide one shared through/left-turn lane and two right-turn only lanes as Master Plan development projects are implemented.

TRAF-6: The southbound approach on Balboa Boulevard to the intersection of Balboa Boulevard & SR-118 Westbound Ramps (int. #4) should be restriped to provide two through lanes, one shared through/right-turn lane and one right-turn lane as Master Plan development projects are implemented.

TRAF-7: The eastbound Chatsworth Street approach to the intersection of Balboa Boulevard & Chatsworth Street (int. #8) should be restriped to provide a left-turn pocket lane as Master Plan development projects are implemented.

TRAF-8: The eastbound Devonshire Street approach to the intersection of Zelzah Avenue & Devonshire Street (int. #11) should be restriped to provide another through lane as Master Plan development projects are implemented. The eastbound approach would consist of one left-turn lane, three through lanes and a right-turn only lane.

TRAF-9: The northbound Zelzah Avenue approach to the intersection of Zelzah Avenue & Plummer Street (int. #25) should be restriped to provide another through lane as Master Plan development projects are implemented. The northbound approach would consist of one left-turn lane, two through lanes and one shared through/right-turn lane. The northbound departure would need to be restriped to have three receiving lanes.

TRAF-10: The westbound Plummer Street shared through/right lane approach to the intersection of Plummer Street & Balboa Boulevard (int. #27) should be restriped to create a 10-foot through lane and a 10-foot right-turn only lane as Master Plan development projects are implemented.

TRAF-11: Balboa Boulevard should be widened to a dedicated right-turn lane on the southbound approach to the intersection of Balboa Boulevard & Devonshire Street (int. #12) as Master Plan development projects are implemented. The southbound approach would consist of one left-turn lane, three through lanes, and one right-turn only lane.

TRAF-12: The west side of the southbound I-405 ramps at the I-405 Southbound Ramps/Blucher Avenue & Devonshire Street (int. #14) should be widened to provide one left-turn only lane and two right-turn only lanes as Master Plan development projects are implemented.

TRAF-13: The southbound approach (freeway off-ramp) at the I-405 Southbound Ramps & Nordhoff Street (int. #41) should be widened to provide one left-turn only lane and two right-turn only lanes as Master Plan development projects are implemented.

TRAF-14: CSUN shall state in its construction contract conditions that construction traffic shall be routed in such a way to reduce the use of neighboring residential streets to the greatest extent feasible during all Master Plan construction activities.

Near-Term Project-Level Analysis

Mitigation Measures TRAF-1 through TRAF-14 would apply to the proposed near-term Master Plan projects, including Phase 1 and Phase 2 projects and the Valley Performing Arts Center.

3.8.8 CUMULATIVE IMPACTS

For the purpose of this EIR, potential traffic-related cumulative impacts are assessed based on the growth projections and the list of related projects in the Northridge community of the City of Los Angeles. These impacts were incorporated into the impact analysis from the outset and have, therefore, been addressed in the analysis above.

3.8.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

Even with implementation of the above mitigation measures, impacts at the following intersections would remain significant and unavoidable:

- Zelzah Avenue & Devonshire Street (int. #11) during the AM peak hour; and

- Balboa Boulevard & Devonshire Street (int. #12) during the PM peak hour.

In addition, impacts at the following neighborhood street segments would remain significant and unavoidable:

- Dearborn Street west of Darby Avenue (seg. #3)
- West University Drive/Etiwanda Avenue south of Nordhoff Street (seg. #6)
- Prairie Street east of Zelzah Avenue (seg. #8)

Finally, the CMP analysis determined that significant impacts would occur at the following freeway segments:

<u>Westbound</u>
- SR-118 between Balboa Boulevard and Havenhurst Avenue (AM peak period)
- SR-118 between Woodley Avenue and the I-405 (AM peak period)

<u>Eastbound</u>
- SR-118 between Reseda Boulevard and Balboa Boulevard (AM peak period)

As there is no feasible mitigation to reduce impacts to the above freeway segments, impacts would remain significant and unavoidable.

3.9 PUBLIC UTILITIES: WATER DEMAND AND SUPPLY

3.9.1 INTRODUCTION

This section evaluates the potential impacts of the proposed project on utilities, specifically water supply, water demand, and water facilities.

The proposed project would result in an incremental increase in demand for water supply and water supply facilities. The existing on-campus water supply infrastructure would need to be upgraded and extended to meet the future demands of the 2005 Master Plan for both the near-term Master Plan projects and Master Plan build out. The off-campus water system falls under the jurisdiction of the City of Los Angeles, and would require coordination with the City of Los Angeles Department of Water and Power (LADWP) to ensure the off-site LADWP improvements can accommodate on-campus improvements.

Project-related and cumulative impacts with regard to water supply would be less than significant. The implementation of the project-related mitigation measures would reduce any potentially significant project-related impacts to the on-campus water supply infrastructure, to less than significant levels. However, even with implementation of the project-related mitigation measures, project-related and cumulative impacts to the off-site water supply infrastructure would be significant and unavoidable.

3.9.2 METHODOLOGY

This section was prepared based on communications with LADWP and a review of available studies and other documents. Water service availability was assessed through communication with LADWP and a review of existing studies. These studies include the LADWP's Urban Water Management Plan (UWMP), adopted in 2000; the Draft 2005 UWMP; the California State University, Northridge Draft Infrastructure Master Plan, revised September 30, 2005; and water demand and water supply information provided by the project civil engineer, Wheeler and Gray.

3.9.3 EXISTING CONDITIONS

Water Supply/Demand

Water Supply

Delivery of adequate water supplies to the desert and semi-desert environments of Southern California has been a central issue in the area for more than 200 years. Over that time, increasingly sophisticated water delivery systems have been developed, together with the wholesale, retail, and regulatory agencies necessary to ensure reliable supplies of water to accommodate the demands of a growing region. In 2004,

the customers of the Los Angeles LADWP purchased 201 billion gallons of water, of which 85 percent comes from other regions via the Los Angeles Aqueduct System, the State Aqueduct System, and the Colorado River Aqueduct System.[1] The LADWP has complete charge and control of its distribution system inside the City of Los Angeles under the provisions of the City Charter. The LADWP's Water Operating Division, under authority extended by the Board of Water and Power Commissioners, owns, operates and maintains all water facilities within the City and is responsible for ensuring that the delivered water meets all applicable state quality standards.

The California Urban Water Management Planning Act requires every municipal water supplier who serves more than 3,000 customers or provides more than 3,000 acre-feet per year (AFY) of water to prepare an UWMP. In the UWMP the water supplier must describe the water supply projects and programs that may be undertaken to meet the total water use of the service area for the next 25 years. The LADWP prepared a UWMP in 2000, with a 2005 Draft Update, that includes estimates of past, current, and projected probable and recycled water use, identifies conservation and reclamation measures currently in practice, describes alternative conservation measures, and provides an urban water shortage contingency plan. The 2005 Draft UWMP identifies water supplies for a 25-year period from 2005 to 2030. LADWP's UWMP relies on the Southern California Association of Governments (SCAG) projections of regional population growth.[2] SCAG's projections of regional growth, in turn, encompass the anticipated growth of California State University, Northridge (CSUN) that the 2005 Master Plan is intended to accommodate.

The 2005 Draft UWMP, Exhibit 6B, Service Area Reliability Assessment for Average Year indicates that LADWP is planning for future growth in the population in its service area. According to the UWMP projections, water demand by the years 2015 and 2030 will be 705,000 and 776,000 AFY, respectively.[3] LADWP estimates that the long-term safe yield of its own water supplies is approximately 383,950 AFY in 2015 and 2030. The plan for meeting the increasing demand for water relies on continued conservation measures, increased use of recycled water as well as reliance on three primary sources of water, the Los Angeles Aqueduct, local groundwater and water purchases from the Metropolitan Water District (MWD). Currently, LADWP purchases approximately 254,000 AFY from the MWD.[4] The LADWP anticipates purchasing approximately 242,550 and 309,550 AFY from the MWD in 2015 and 2030, respectively.[5]

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1 City of Los Angeles Department of Water and Power, Los Angeles Department of Water and Power 2004 Water Quality Report.

2 City of Los Angeles Department of Water and Power, Draft 2005 UWMP.

3 2005 Draft Urban Water Management Plan for the Los Angeles Department of Water and Power, Exhibit 6B, Service Area Reliability Assessment for Average Year, p. 6-6.

4 Ibid.

5 Ibid.

According to LADWP, there are adequate supplies available to serve City needs through 2030.[6] Imported water is forecasted to remain as the City's primary water resource.

Water Demand

CSUN uses water for drinking, sanitation, fire protection, heating, cooling, utility systems, research, classrooms, cleaning, restrooms, showers, laundry, and landscape irrigation. The most recent data available regarding campus water demand is from 2003. As shown in **Table 3.9-1**, **Summary of Total Campus Water Demands for 2003**, water usage at the CSUN campus for that year was approximately 1,808 AFY.

Table 3.9-1
Summary of Total Campus Water Demands for 2003

Year	Use	Annual Usage (Acre-feet)
2003	CSUN Campus	1,808

*Source: Wheeler and Gray, October 2005. See **Appendix E** for calculations.*
Note: Water demand per sewer discharge rate

In recent years, conservation has become an important aspect of water supply planning. Today's total water consumption is nearly equal to that of 20 years ago, despite an increase of approximately 700,000 people during that time frame. LADWP attributes the savings in water consumption to the City's successful water conservation measures. In addition, the California State University (CSU) has adopted a revised CSU policy on utilities management for 2004–05 that required all CSU campuses to take all possible steps to conserve water resources. (See **Section 3.9.4**, below, for more information regarding the CSU's water conservation policy.)

Water Infrastructure

The existing campus domestic water system is shown in **Figure 3.9-1, Existing Domestic Water System**. The University is responsible for all lines on campus property and for installing connections to LADWP lines off-campus.

The campus is served directly by LADWP from distribution mains in Zelzah Avenue. The existing University Village Apartments face Zelzah Avenue and are directly served by this water main. The North Campus is served by an existing 12-inch water main in Lindley Avenue and an 8-inch main in

6 Ibid.

Zelzah Avenue. The LADWP water main in Plummer Street, which provides water service to the campus, is at capacity, but remaining existing potable water lines on the campus are adequate.

The existing campus fire water system is shown in **Figure 3.9-2**, **Existing Fire Water System**. The existing fire protection system is supplied from the same LADWP water mains as the domestic water supply discussed above, but feed off the mains as a completely separate service. On campus, the existing fire system functions adequately, primarily at or near capacity.

3.9.4 REGULATORY SETTING

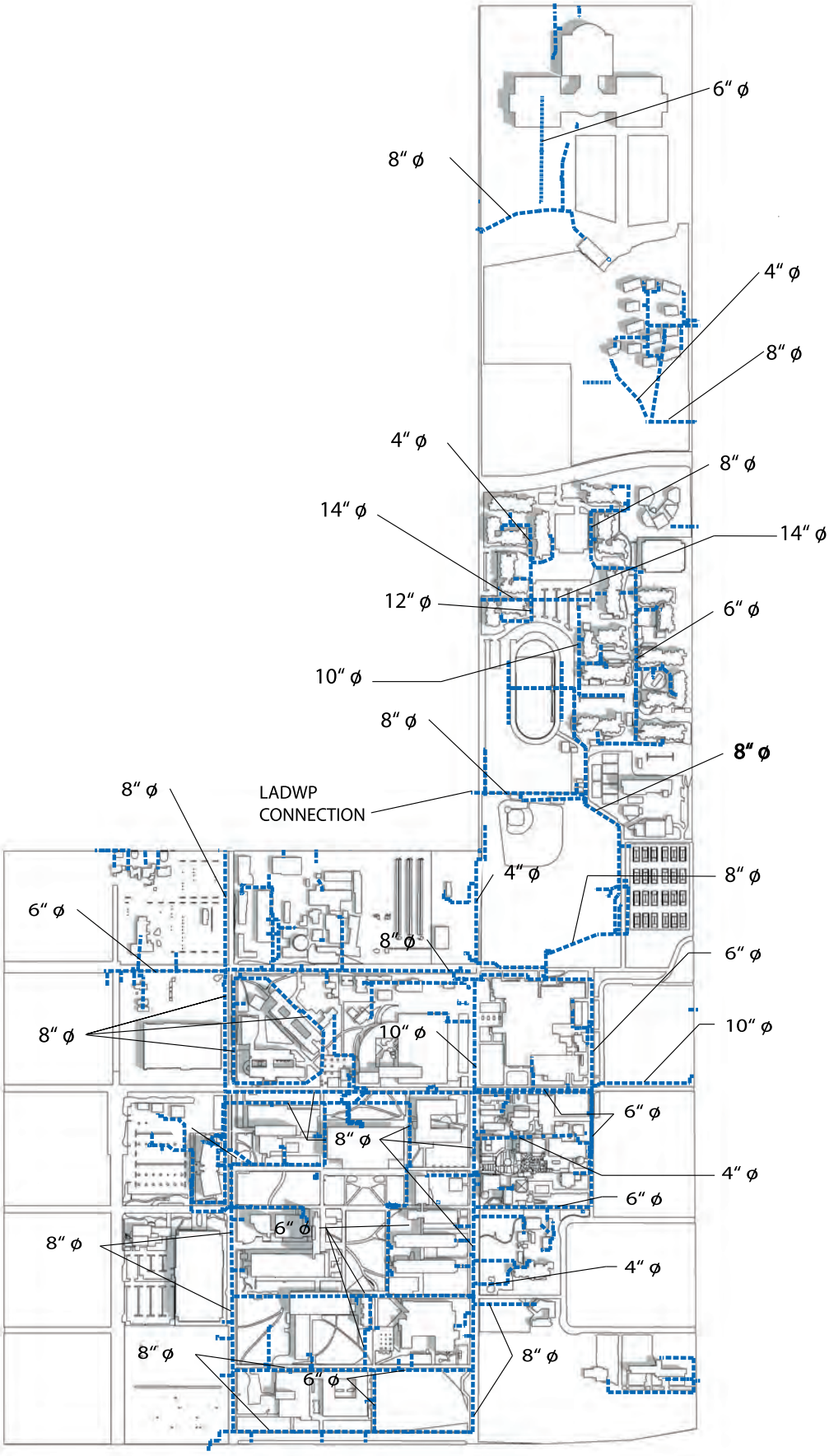
Senate Bill 610 (State Water Code §10910 et seq.)

In accordance with Senate Bill 610 (effective January 1, 2002 and codified in the Water Code beginning at §10910), in the setting where a City or County has determined that a project is subject to the California Environmental Quality Act (CEQA), the City or County must request, and the public water supplier must prepare, a Water Supply Assessment (WSA) for any "project approval" which is subject to CEQA and which meets the definition of "project" in Water Code §10912 (i.e., a residential development project of more than 500 dwelling units or other types of specified development projects using a comparable amount of water). See also, Public Resources Code §21151.9. This process essentially requires proof that there will be adequate water supplies for larger project within a 20-year time frame at the local level. The water assessment would address whether a projected water supply for the next 20 years, based on normal, single dry, and multiple dry years, will meet the demand of the project. The conclusions of the water assessment would then be included in the water supply impact analysis of the EIR.

CSU Water Conservation Policy

The CSU has recently adopted a policy requiring all campuses to take every possible step to conserve water resources, including installing controls to optimize irrigation water, reducing water usage in restrooms and showers and cooperating with state, City, and County governments to the greatest extent possible to effect additional water conservation.

Consistent with CSU policy, CSUN has installed low-flow toilets and urinals, flush valve controls, electronic faucets, and low-flow showerheads in all or most of its lavatory facilities. CSUN has also required energy and water conserving fixtures in all new construction on campus. To conserve water used in landscape irrigation, CSUN utilizes irrigation controllers that are linked to weather service evapotranspiration data to deliver the irrigation water only when needed.



NOT TO SCALE

SOURCE: California State University Northridge Master Plan – September 2005

FIGURE **3.9-1**

Existing Domestic Water System

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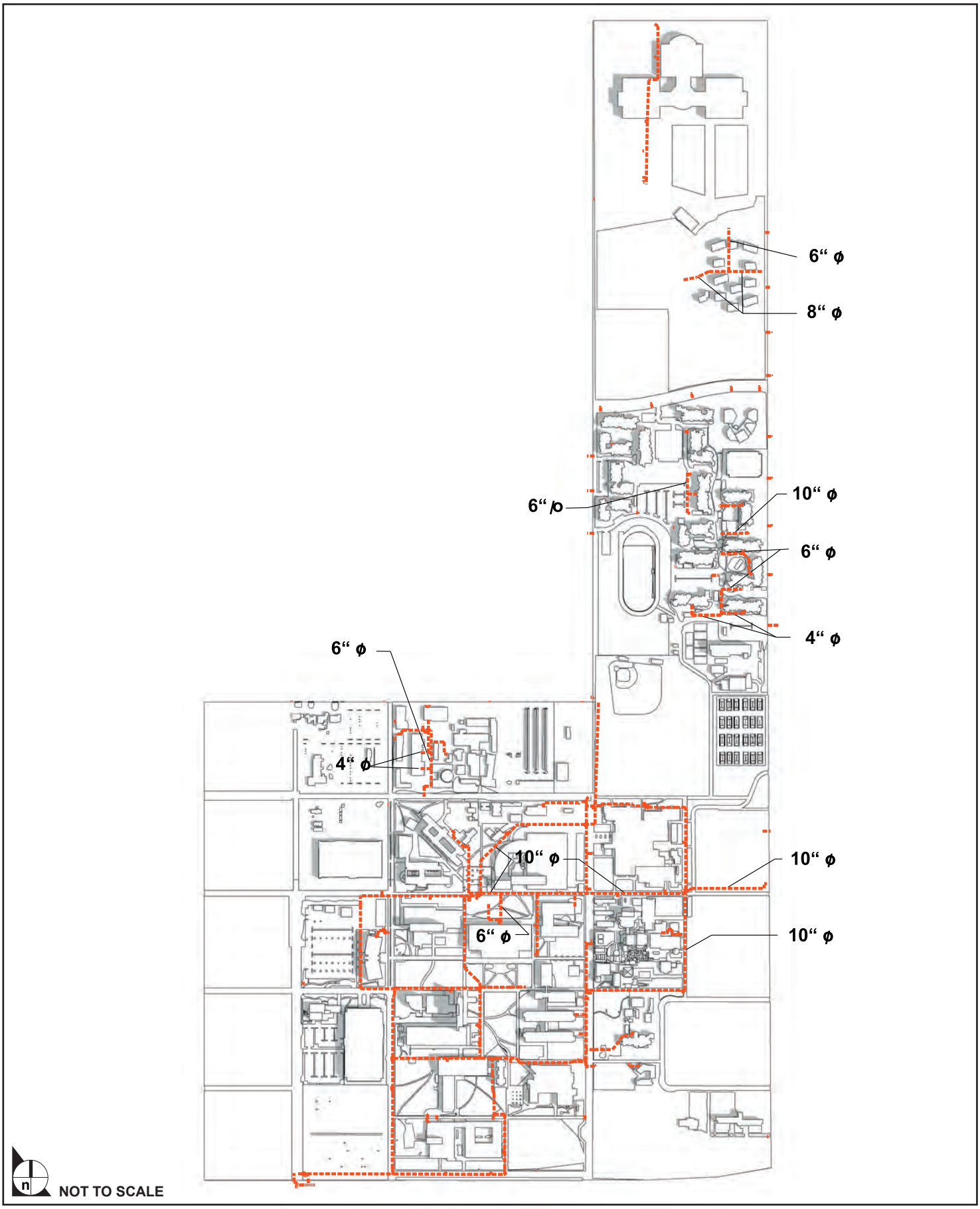

SOURCE: California State University Northridge Master Plan – September 2005

FIGURE **3.9-2**

Existing Fire Water System

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As a result of these measures, CSUN's water consumption has remained relatively constant from 1989 to the present, despite increased campus population, and new buildings and structures. Consistent with CSU policy, CSUN will continue to implement conservation measures to reduce the use of water.

3.9.5 SIGNIFICANCE CRITERIA

The following thresholds for determining the significance of impacts related to water resources are contained in the environmental checklist form contained in Appendix G of the most recent update of the *CEQA Guidelines*. Project impacts related to water services are considered significant if:

WAT-1: Sufficient water supplies are not available to serve the project from existing entitlements and resources, or new or expanded entitlements are needed.

WAT-2: Project would require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

3.9.6 ENVIRONMENTAL IMPACTS

Program Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next 30 years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents, or FTEs, over the next 30 years, as well as accommodate the evolving pedagogical needs of the University's academic, administrative, student support, and campus support department and programs.

Water Supply/Demand

WAT-1: Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Water Supply

To ensure that there are sufficient water supplies to meet the demand created by the 2005 Master Plan, CSUN sought and obtained a will-serve letter from LADWP (see **Appendix E**). This letter indicates that LADWP is obligated to provide service. However, the cost of service, upgrades, etc. would be determined at the time that schematic designs for individual project components are developed and implemented.

With respect to SB610, the 2005 Master Plan, which applies to the state-owned CSUN campus, is subject to CEQA, not the City or County of Los Angeles. As a result, SB610 WSA requirements do not apply, as neither CSU nor CSUN is a City or County entity. In addition, the SB610 WSA requirements do not apply because the proposed Master Plan is not the type of project that triggers a WSA request.

The new law provides a definition of "project" to be used in determining whether a water supply assessment should be requested by a City or County, and prepared by the water purveyor. For a water purveyor with the designated number of connections, a water supply assessment should be prepared when a project includes any of the following: (1) more than 500 residential dwelling units; (2) a shopping center or business with more than 1,000 employees or more than 500,000 square feet of floor space; (3) a commercial office building with more than 250,000 square feet of floor space or more than 1,000 employees; (4) a hotel or motel with more than 500 rooms; (5) an industrial, manufacturing or processing plant, or an industrial park, with more than 650,000 square feet of floor area, more than 1,000 employees, or that occupies more than 40 acres; (6) a mixed-use project that includes one or more of the above specified projects; or (7) a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

As stated above, the new law is intended to apply only to a City or County that determines that a project, as defined above, is subject to CEQA. At that time, the City or County is required to identify the water purveyor and request the purveyor to prepare a water supply assessment. CSUN is state-owned property, and neither CSU nor CSUN fall within the scope of this new law. In addition, the new law does not appear to be intended to apply to projects defined as a long-term state university campus master plan revision, like the 2005 Master Plan. Accordingly, the 2005 Master Plan does not meet the project definition found in the new law.

Finally, aside from the inapplicability of the new law to the proposed Master Plan project, the new law also contains provisions suggesting that the County of Los Angeles, including the Cities in the County, is deemed to have complied with the new law due to regional growth management programs and strategies. (See Water Code §10915.)

Moreover, LADWP's Draft 2005 UWMP states that it has adequate current water supplies to serve its service area for normal, single-dry years, and multiple-dry years, based on the availability of supplies from the State Water Project, Colorado River aqueduct, Los Angeles-Owens River aqueducts, and local groundwater supplies. The LADWP service area is defined as the entire City of Los Angeles, plus portions of West Hollywood, Culver City, and Los Angeles County. Projected demand for water supplies in the service area is based on MWD and Southern California Association of Governments (SCAG) population projections for the area as well as SCAG economic and employment projections. The

UWMP contains most of the data used in preparing Water Supply Assessments, and LADWP's assessments typically rely primarily on the UWMP to determine whether adequate water supplies exist for its service area. Since CSUN's growth is consistent with SCAG projections for the Los Angeles region as well as the Northridge community (see **Section 3.5, Population and Housing**), water supplies for the proposed project would be adequate.

For these reasons, impacts with regard to water supply would be less than significant for the Master Plan project.

Water Demand

Table 3.9-2, **Summary of Projected Total Master Plan Water Demands for 2035**, shows projected campus water demand for the project in 2035. As shown, the annual campus water usage, including new student and faculty/staff housing, would increase from 1,808 AFY to 4,299 AFY in 2035.

Table 3.9-2
Summary of Projected Total Master Plan Water Demands for 2035

Year	Use	Annual Usage (Acre-feet)
2035	CSUN Campus Master Plan	4,299

*Source: Wheeler and Gray, October 2005. See **Appendix E** for calculations.*
Note: Water demand per sewer discharge rate

The project water consumption represents a relatively small fraction (approximately 0.55 percent) of the projected water demand (776,000 AFY) that LADWP plans to meet by 2035. The project is consistent with SCAG's population growth projections for the City of Los Angeles. LADWP has utilized SCAG's growth projections in projecting future water demand. The Master Plan project's water demand would, therefore, be met by the planned growth of the water system. Consistent with CSU policy, CSUN would continue to implement conservation measures to reduce the use of water.

Based on the information above, there is adequate water to meet the Master Plan project's water demand and impacts to the water supply would be less than significant.

Water Infrastructure

WAT-2: Would the project require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The existing on-and off-campus water facilities systems would need to be upgraded and extended to meet the future demands of the 2005 Master Plan. The University is responsible for all lines within its property and for making connections to LADWP's lines off-campus. Connection to LADWP's lines would require coordination with LADWP to ensure the off-site LADWP improvements can accommodate on-campus improvements. All water connections and upgrades in City rights-of-way would be implemented at the direction of LADWP. CSU/CSUN would coordinate directly with LADWP at the appropriate times during project phasing. Mitigation Measure WAT-2 requires that CSUN comply with the requirements of Government Code §54999 with respect to connections to off-site water supply facilities and improvements to off-site water supply facilities.

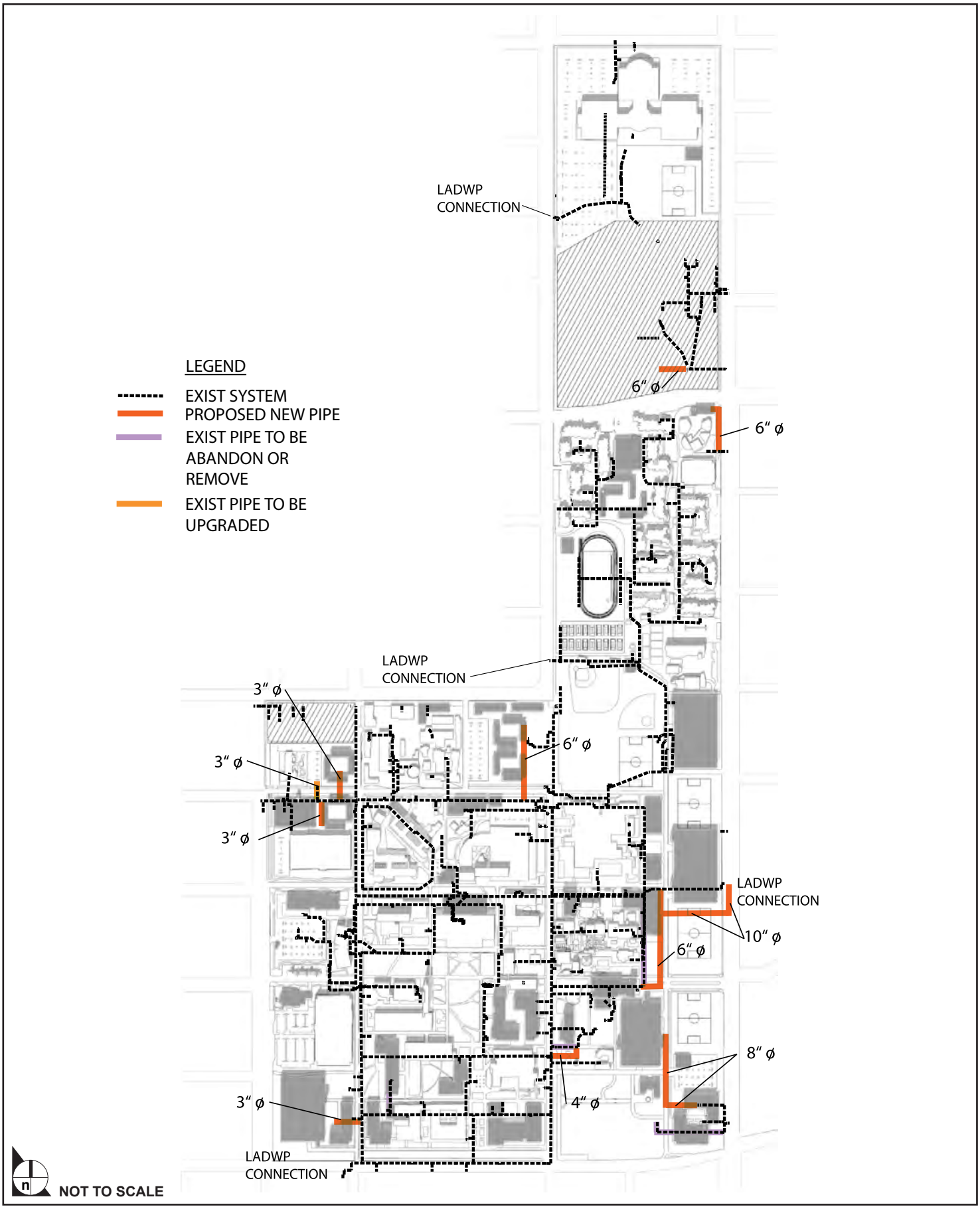
On-site water lines for both domestic and fire protection water would need to be relocated prior to the construction of buildings on the east side of campus. Since these existing lines also serve other buildings, temporary lines may be necessary during construction.

The proposed campus domestic water system is shown in **Figure 3.9-3, Proposed Domestic Water System**. The North Campus area is currently served by an existing 12-inch water main in Lindley Avenue and an 8-inch main in Zelzah Avenue. Additional development within the North Campus would be served from the distribution mains in Lindley and Zelzah Avenues. At least one new water main connection would be needed from Lindley Avenue for the new faculty/staff housing complex, along with upgrading the existing connections from the east on Zelzah Avenue. LADWP's mains in this area are sized for multi-unit residential and commercial development; as a result, no upgrades should be necessary as these existing mains are sized for high-density development.

It is probable that the 8-inch line in Zelzah Avenue from Devonshire Street to Lassen Street would need to be upgraded to a 12-inch line to accommodate development of the North Campus. Also, a new water line in the Lassen Street corridor from Lindley Street to Zelzah Avenue would be needed to improve water pressure.

For the central-western campus, water service would be taken from Halsted Street. LADWP's mains in this immediate area are sized for multi-unit residential and commercial development. No upgrades to the water lines in the immediate area should be necessary, though the size of LADWP mains upstream of the campus in Halsted Street from Etiwanda Avenue to Reseda Boulevard would need to be increased.

Water service for the North Campus south of Lassen Street from Zelzah Avenue would be upgraded and new connections would be taken from the water mains in Lindley and Zelzah Avenues. In addition, the on-site system for this entire student housing area would need to be upgraded. In this area, LADWP's water mains are sized for high-density development and are not anticipated to require upgrades.



SOURCE: California State University Northridge Master Plan – September 2005

FIGURE **3.9-3**

Proposed Domestic Water System

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For new buildings on the east side of the campus on Plummer between Darby Avenue and West University (northwest corner of Plummer Street and Lindley Avenue), new service connections would be from the existing City water main in Plummer Street. This concentration of residential units would add significant demand to LADWP's water system, at an average of 60 gallons per minute (GPM). This translates into an increased peak demand of approximately 300 GPM and would require an upgrade of the City's main in Plummer Street.

Existing services are adequate for the balance of the proposed buildings and should not require any modifications.

The existing fire protection system is supplied from the same LADWP water lines as the domestic water supply discussed above, though once on-site they are completely separate. The proposed campus fire water system is shown in **Figure 3.9-4**, **Proposed Fire Water System**. A total of 12 new fire protection waterlines are being considered for the full build out in 2035. Nine of these new lines would be to feed additional fire hydrants for future buildings, one line would be an upgrade to an existing line, and the last two would be to re-route the existing lines to avoid new structures.

Even with implementation of new on-campus and off-site improvements, impacts with regard to off-site water service facilities would be significant and adverse.

Near-Term Project-Level Analysis

As stated in **Section 2.0, Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Hub, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, the Science 5 facility, and 250 Faculty/Staff housing units. Phase 2 development projects include Parking Structure G6; Faculty Offices and Lecture Hall; two Lecture/Laboratory facilities; the Student Recreation Center; and 100 Faculty/Staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

Water Supply/Demand

Water-1: Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Water Supply

As previously stated, to ensure that there are sufficient water supplies to meet the demand created by the 2005 Master Plan, CSUN sought and obtained a will-serve letter from LADWP (see **Appendix E**). This

letter indicates that LADWP is obligated to provide service to the campus. However, the cost of service, upgrades, etc. would be determined at the time that individual project components are developed and implemented. This is applicable to near-term Master Plan projects as well.

Also as stated above, with respect to SB610, the 2005 Master Plan, which applies to the state-owned CSUN campus, is subject to CEQA, not the City or County of Los Angeles. As a result, SB610 WSA requirements do not apply, as neither CSU nor CSUN is a City or County entity. In addition, the SB610 WSA requirements do not apply because the proposed Master Plan is not the type of project that triggers a WSA request.

Finally, aside from the inapplicability of the new law to the proposed project, the new law also contains provisions suggesting that the County of Los Angeles, including the Cities in the County, is deemed to have complied with the new law due to regional growth management programs and strategies. (See Water Code § 10915.)

For these reasons, impacts with regard to water supply would be less than significant for the near-term project.

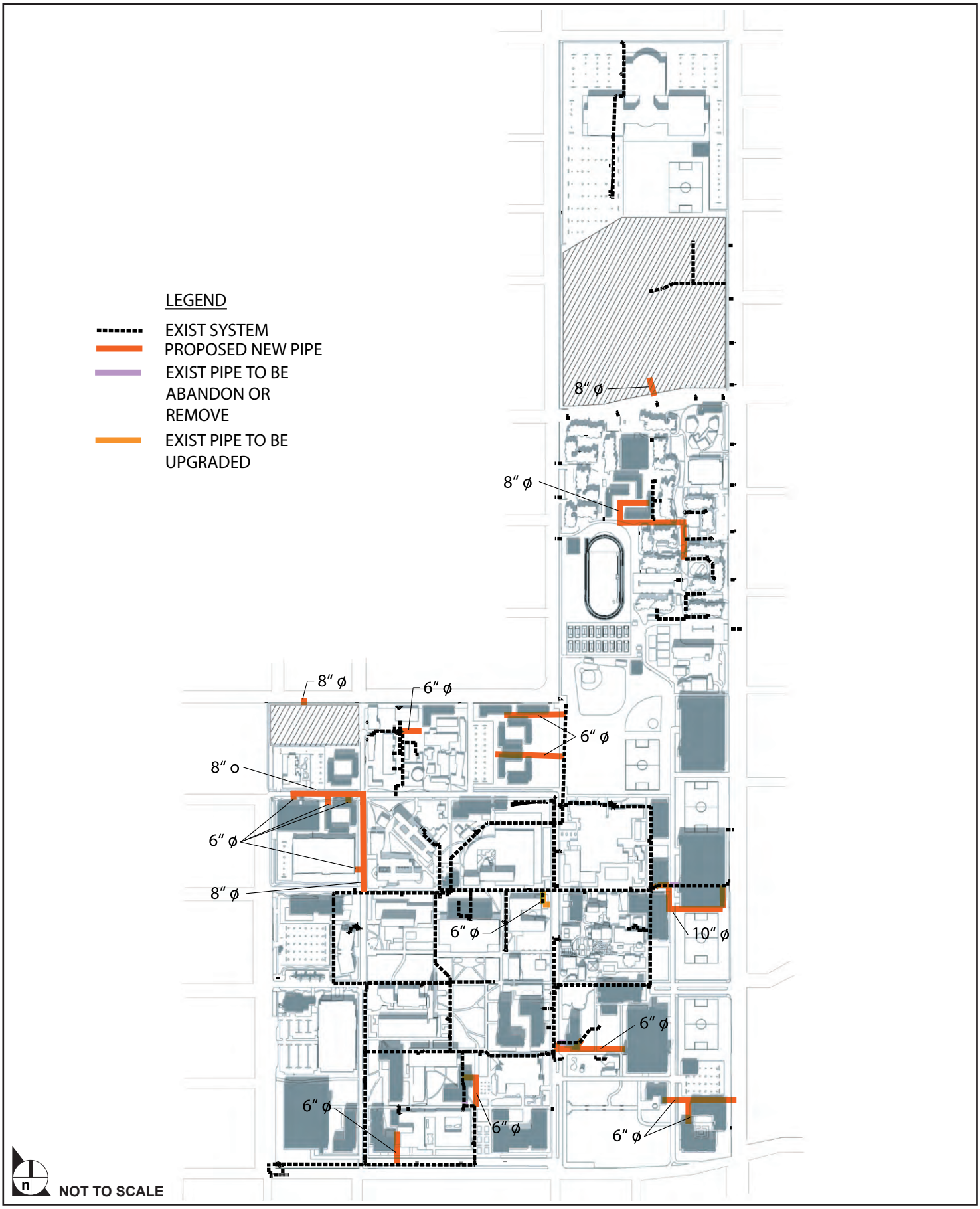
Water Demand

Table 3.9-3, **Summary of Projected Phase 1 and 2 Water Demands for 2015**, shows projected campus water demand for Phases 1 and 2. As shown, the annual campus water usage, including student and faculty/staff housing, would increase from 1,808 AFY to 2,388 AFY in 2035.

Table 3.9-3
Summary of Projected Phase 1 and 2 Water Demands for 2015

Year	Use	Annual Usage (Acre-feet)
Existing	Campus	1,808
2009	Phase 1	209
2015	Phase 2	371
2015	Subtotal Phases 1 and 2	580
2015	**Total**	**2,388**

*Source: Wheeler and Gray, October 2005. See **Appendix E** for calculations.*
Note: Water demand per sewer discharge rate



SOURCE: California State University Northridge Master Plan – September 2005

FIGURE **3.9-4**

Proposed Fire Water System

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The project water consumption represents a relatively small fraction (approximately 0.3 percent) of the projected water demand (705,000 AFY) that LADWP plans to meet by 2015. As the Master Plan project is consistent with SCAG's population growth projections for the City of Los Angeles, so is the near-term project. LADWP has utilized SCAG's growth projections in projecting future water demand. The near-term project's water demand would, therefore, be met by the planned growth of the water system. Consistent with CSU policy, CSUN would continue to implement conservation measures to reduce the use of water.

Based on the information above, there is adequate water to meet the near-term project's water demand and impacts to water supply would be less than significant.

Water Infrastructure

Water-2: Would the project require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The existing on-and off-campus water facilities systems would need to be upgraded and extended to meet the future demands of the near-term projects. As stated above, the University is responsible for all lines within its property and for providing on-campus connections to LADWP's lines off-campus. Connection to LADWP's lines would require coordination with LADWP to ensure the off-site LADWP improvements can accommodate on-campus improvements. All water connections and upgrades in City rights-of-way would be implemented at the direction of LADWP. CSU/CSUN would coordinate with LADWP at the appropriate times during project phasing. Mitigation Measure WAT-2 requires that CSUN comply with the requirements of Government Code §54999 with respect to connections to off-site water supply facilities and improvements to off-site water supply facilities.

On-site water lines for both domestic and fire protection water would need to be relocated prior to the construction of buildings on the east side of campus. Since these existing lines also serve other buildings, temporary lines may be necessary during construction.

The proposed campus domestic water system is shown in **Figure 3.9-3**. Implementation of the faculty/staff housing proposed under Phases 1 and 2 would require off-site improvements. As stated above, connection to LADWP's lines would require coordination with LADWP to ensure the off-site LADWP improvements can accommodate on-campus improvements.

The existing fire protection system is supplied from the same LADWP water lines as the domestic water supply discussed above, though once on-site they are completely separate. The proposed campus fire water system is shown in **Figure 3.9-4**. As stated above, a total of 12 new fire protection waterlines are

being considered for the full build out in 2035. The timing for the installation of the lines and hydrants during implementation of the near-term projects would be at the direction of the Fire Department, who will determine the implementation schedule to ensure that the fire protection system is adequate at all times.

Even with implementation of new on- campus and off-site improvements, impacts with regard to off-site water service facilities would be significant and unavoidable.

3.9.7 MITIGATION MEASURES

Program Level Analysis

WAT-1: CSU, CSUN, or its designee shall consult with the City of Los Angeles Department of Water and Power on exact sizing and extensions required for water lines that will serve each project component at the time it undertakes site-specific design plans.

WAT-2: CSU, CSUN, or its designee shall comply with the requirements of Government Code §54999 with respect to connections to off-site water facilities and improvements to off-site water facilities.

Near-Term Project-Level Analysis

The mitigation measures applicable to the program level analysis would apply to the near-term Master Plan projects. No additional mitigation is required or recommended.

3.9.8 CUMULATIVE IMPACTS

The proposed project would result in an incremental increase in demand for water supply and water supply facilities. However, the implementation of the project-related mitigation measures and the implementation of similar mitigation measures by other related projects would reduce any potentially significant cumulative impacts with regard to the local water supply, water demand and on-site water system to a level that is less than significant. Cumulative impacts to off-site water supply facilities would be significant and unavoidable.

3.9.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

With the implementation of the recommended mitigation measures, impacts to water supply and on-site water supply facilities would be less than significant. Impacts to off-site water supply facilities would be significant and unavoidable.

3.10 PUBLIC UTILITIES: WASTEWATER

3.10.1 INTRODUCTION

This section evaluates the potential impacts of the proposed project on utilities, specifically the wastewater collection, conveyance, and treatment system.

The existing wastewater facilities would need to be upgraded and extended to meet the future demands of the 2005 Master Plan for both the near-term Master Plan projects and Master Plan buildout. These systems all fall under the jurisdiction of City of Los Angeles, Department of Public Works (DPW), Bureau of Sanitation, and would require close coordination with the DPW and Bureau of Sanitation to ensure the off-site improvements can accommodate on-site California State University, Northridge (CSUN) campus improvements.

The implementation of the project-related mitigation measures would reduce any potentially significant project-related impacts to the on-site wastewater collection and conveyance facilities to less than significant levels. Even with implementation of the project-related mitigation measures, project-related and cumulative impacts to the off-site wastewater collection and conveyance facilities would be significant and unavoidable. Project-related and cumulative impacts to the wastewater treatment system would be less than significant.

3.10.2 METHODOLOGY

The project's impact on wastewater service was assessed in the CSUN Draft Infrastructure Master Plan, part of the campus Master Plan (revised September 30, 2005), and information provided by Wheeler and Gray.

3.10.3 EXISTING CONDITIONS

Campus Wastewater Generation

The most recent data available regarding campus wastewater generation is from 2005. As shown in **Table 3.10-1**, **Summary of Total Campus Wastewater Generation for 2005**, wastewater generation at the CSUN campus for that year was approximately 1.09 million gallons per day (MGD), or 398 million gallons per year (MGY).

Table 3.10-1
Summary of Total Campus Wastewater Generation for 2005

Year	Use	Million Gallons Per Day (MGD)	Million Gallons Per Year (MGY)
2005	CSUN Campus	1.09	398

*Source: Wheeler and Gray, October 2005. See **Appendix F** for calculations.*

Consistent with CSU policy, CSUN would continue to implement conservation measures to reduce water consumption and wastewater generation. (See **Section 3.10.4**, below, for more information regarding the CSU's water conservation policy.)

Treatment Facilities

The DPW provides sewage collection service to the project site, which is located in the Reseda Wastewater Collection District. Wastewater generated by the project is treated at the Hyperion Wastewater Treatment Plant (HTP) located in Playa del Rey. The HTP treats wastewater from almost all of the City of Los Angeles as well as seven contract Cities (Santa Monica, Beverly Hills, Burbank, Culver City, El Segundo, Glendale, San Fernando), unincorporated portions of Los Angeles County, and 29 contract agencies. These neighboring Cities and agencies are under contract with the City of Los Angeles to participate in the cost of having their wastewater treated at the City's facilities. Completed in 1950, the HTP was upgraded in 1998 by adding additional capacity of 90 MGD such that it could accommodate a total average flow of 450 MGD. Currently, the HTP treats an average dry weather flow of 340 MGD.[1]

The HTP service area also includes two inland reclamation plants: the Los Angeles/Glendale Water Reclamation Plant (LAGWRP) and the Tilman Water Reclamation Plant (TWRP). These plants partially treat upstream flows generated by urban uses in the San Fernando Valley and route the partially treated flows to the HTP. The LAGWRP was completed in 1976 and is capable of processing approximately 30 MGD of wastewater. The TWRP became operational in 1985 and was designed to process 40 MGD of wastewater. An expansion of TWRP was completed in October 1991, which increased its current capacity to 80 MGD. In total, the HTP, inclusive of LAGWRP and TWRP, has the capacity to treat 590 MGD of domestic wastewater under normal operating conditions. Currently, the HTP system is treating 350 MGD, 240 MGD below its rated capacity. This spare capacity is due in part to water conservation measures now required as part of the City of Los Angeles Uniform Building Code.

1 www.lacity.org/SAN/wpd/WPD/general/hypern1.htm.

Collection Facilities

Figure 3.10-1, Existing Wastewater System, shows the existing wastewater system serving the Campus. The North Campus is served by the DPW's 8-inch sanitary sewer mains in Lindley and Zelzah Avenues. The sewer main in Lindley is already utilized beyond capacity. The Campus operates several sanitary sewer holding tanks and pumps to retain flow for pumping into the system during off-peak periods, and at least one tank is in need of relocation.

3.10.4 REGULATORY SETTING

City of Los Angeles

The DPW requires that the new development connect to the City's existing sewer system. (See discussion in **Section 3.10.6**, below.)

CSU Water Conservation Policy

The California State University (CSU) has adopted a revised CSU policy on utilities management for 2004–05 that required all CSU campuses to take all possible steps to conserve water resources by reducing water consumption and wastewater generation. The policy requires that all CSU campuses take every necessary step to conserve water resources, including installing controls to optimize irrigation water, reducing water usage in restrooms and showers, and cooperating with state, City, and County governments to the greatest extent possible to effect additional water conservation. Consistent with CSU policy, CSUN has installed low-flow toilets and urinals, flush-valve controls, electronic faucets, and low-flow showerheads in all or most of its lavatory facilities. CSUN has also required energy- and water-conserving fixtures in all new construction on campus. To conserve water used in landscape irrigation, CSUN utilizes irrigation controllers that are linked to weather service evapotranspiration data to deliver the irrigation water only when needed. As a result of these measures, CSUN's water consumption has remained relatively constant from 1989 to the present, despite increased campus population, and new buildings and structures. Consistent with CSU policy, CSUN will continue to implement conservation measures to reduce the use of water.

3.10.5 SIGNIFICANCE CRITERIA

The following thresholds for determining the significance of impacts related to sewage are contained in the environmental checklist form contained in Appendix G of the most recent update of the *California Environmental Quality Act Guidelines*. The proposed project will have a significant impact if it would:

WW-1: Result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

WW-2: Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

WW-3: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

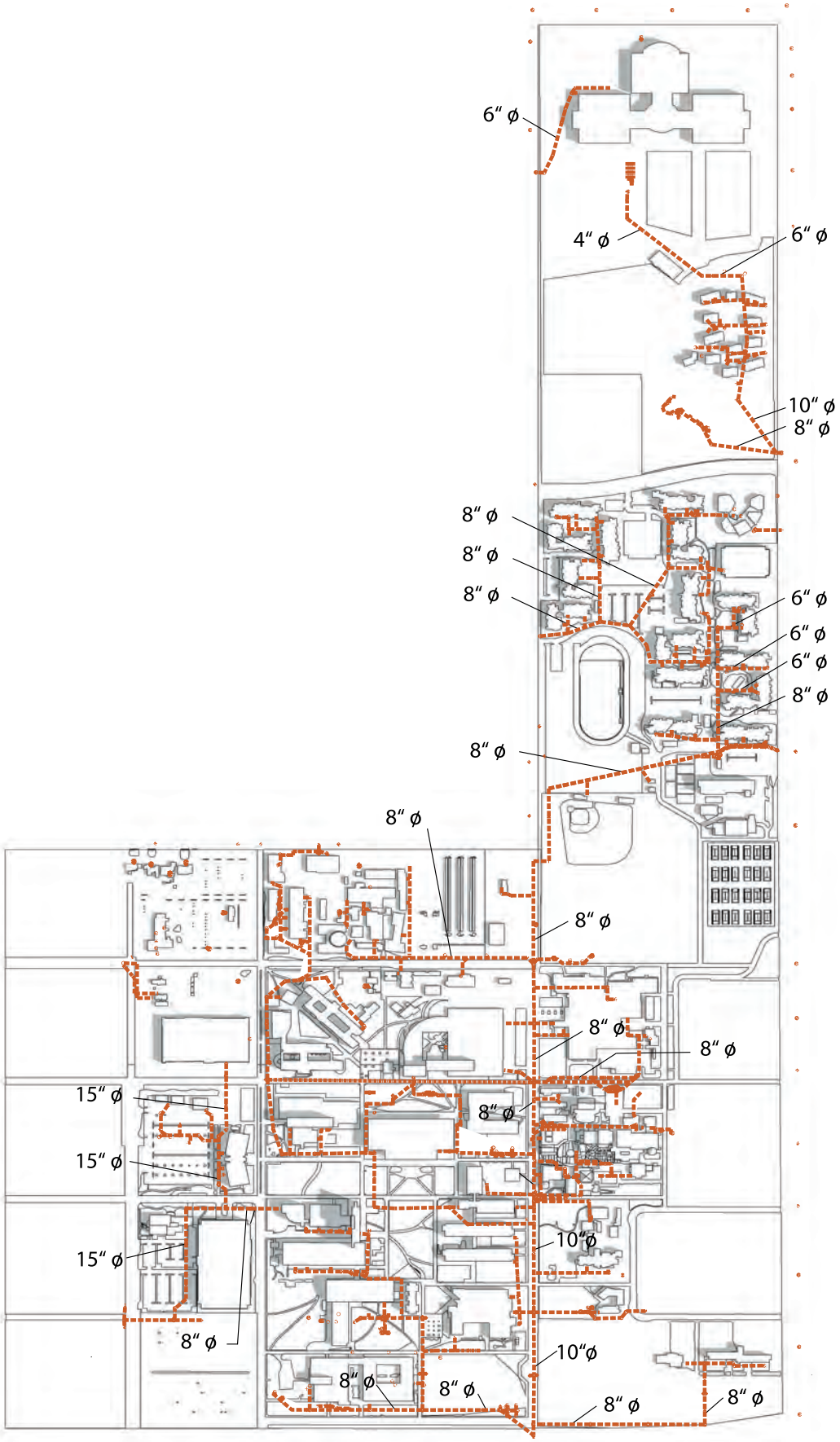
3.10.6 ENVIRONMENTAL IMPACTS

Program-Level Analysis

The 2005 Master Plan is a comprehensive series of programs intended to configure and guide the physical development of the CSUN campus over the next 30 years. The Master Plan addresses land uses and facilities required to accommodate projected enrollment increases up to 35,000 full-time equivalents (FTEs) over the next 30 years, as well as accommodate the evolving pedagogical needs of the University's academic, administrative, student support, and campus support department and programs.

WW-1: Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

WW-2: Would the project require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?



NOT TO SCALE

SOURCE: California State University Northridge Master Plan – September 2005

FIGURE **3.10-1**

Existing Wastewater System

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Campus Wastewater Generation

Table 3.10-2, **Summary of Projected Total Master Plan Wastewater Generation for 2035**, shows projected campus wastewater generation for the project in 2035, based on a 40 percent increase in total campus population between 2004 and 2035. As shown, the annual campus wastewater generation, including new student and faculty/staff housing, would be 2.38 MGD or 869 MGY. This represents an increase of 1.29 MGD or 417 MGY between 2005 and 2035.

Table 3.10-2
Summary of Projected Total Master Plan Wastewater Generation for 2035

Year	Use	Million Gallons Per Day (MGD)	Million Gallons Per Year (MGY)
2035	CSUN Campus Master Plan	2.38	869

*Source: Wheeler and Gray, October 2005. See **Appendix F** for calculations.*

Treatment Facilities

As stated above, currently, the HTP system is treating 350 MGD, 240 MGD below its rated capacity. The additional 1.29 MGD of wastewater generated by the 2005 Master Plan represents a relatively small fraction (approximately 0.54 percent) of the available 240 MGD capacity of the HTP. Consistent with CSU policy, CSUN would continue to implement conservation measures to reduce the use of water, further reducing sewage generation.

Based on the information above, there is adequate capacity at the HTP to accommodate the project's wastewater generation, and impacts to wastewater treatment facilities would be less than significant.

Collection Facilities

The existing on-and off-campus wastewater facilities systems would need to be upgraded and extended, and new connections would be required to meet the future demands of the 2005 Master Plan. The DPW requires that the new development connect to the City's existing sewer system. The Campus is responsible for all lines within its property and for installing connections to the DPW's lines off-campus. It would then be the responsibility of the DPW to upgrade the wastewater collection and treatment systems by providing relief for existing trunk lines nearing capacity and expanding treatment facilities. Connection to the DPW's lines would require coordination with the DPW to ensure the off-site DPW improvements can accommodate on-site Campus improvements. The DPW would require a development fee for each new connection. CSU/CSUN would coordinate directly with the DPW at the

appropriate times during project phasing. Mitigation Measure WW-2 requires that CSUN comply with the requirements of Government Code §54999 with respect to connections to off-site wastewater facilities and improvements to off-site wastewater facilities.

The proposed Campus wastewater system is shown in **Figure 3.10-2, Proposed Wastewater System**. The 8-inch sanitary sewer mains in Lindley and Zelzah Avenues would need to be enlarged to 10- to 12-inch lines in order to accommodate North Campus development, depending on the final density of the 2005 Master Plan buildout. The new units would require new sewer connections in Lindley Avenue.

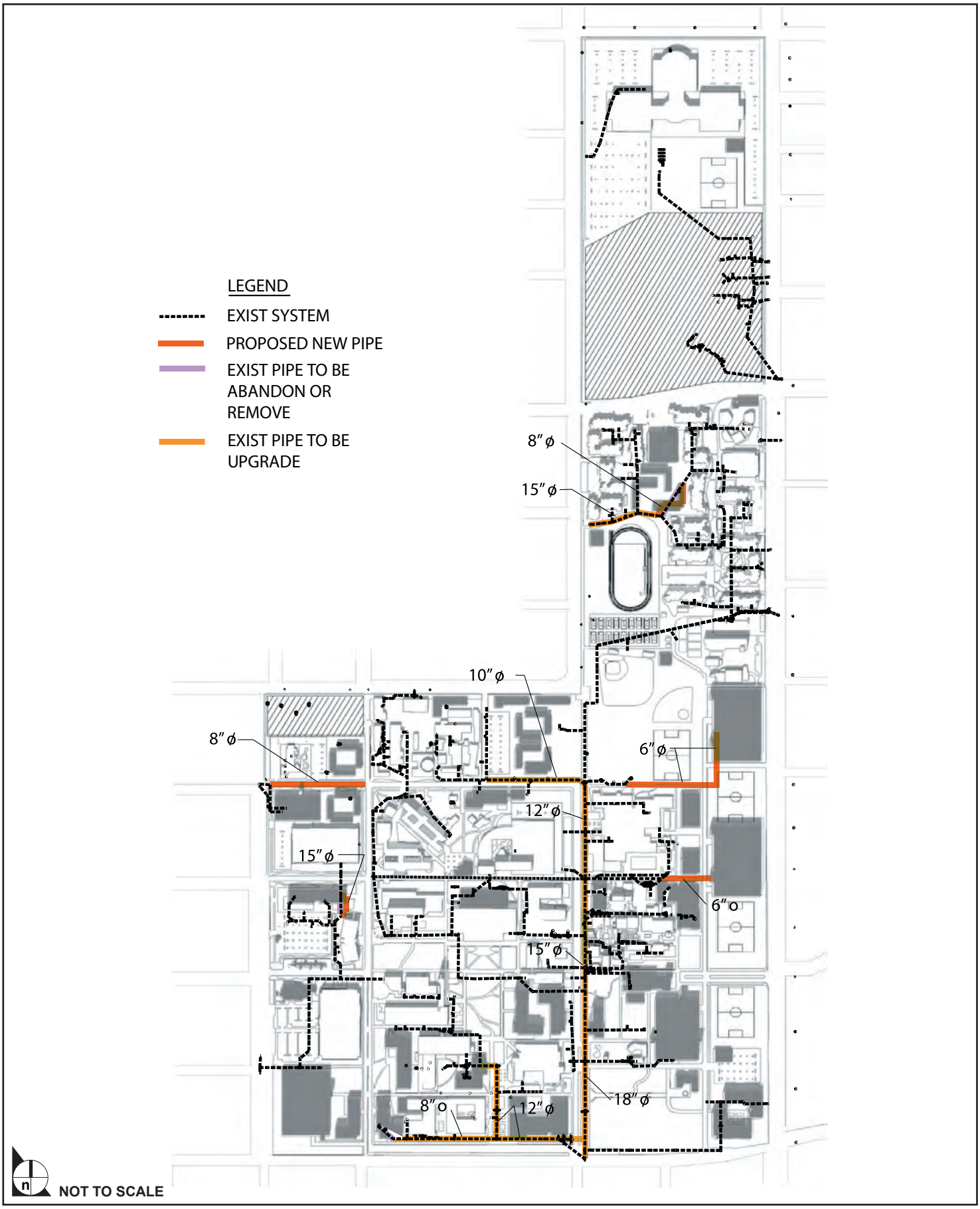
For the Main Campus, new sewer services would be taken from Halsted and Plummer Streets, and Lindley and Zelzah Avenues. New connections to the DPW main and an upgrade of the sanitary sewer lines would be required.

The main in Lindley Avenue is currently utilized beyond capacity. The Campus operates several sanitary sewer holding tanks and pumps to retain flow for pumping into the system during off-peak periods, and at least one tank would need to be relocated. In addition, the 15-inch sanitary sewer that crosses Vincennes Street and flows toward Prairie Street would need to be relocated to accommodate new buildings.

Even with implementation of new on-campus and off-site improvements, impacts with regard to off-site wastewater service facilities would be significant and unavoidable.

WW-3: Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The HTP is also responsible for disposal of the treated wastewater. The Los Angeles Regional Water Quality Control Board (LARWQCB) regulates the treatment of wastewater at treatment plants and the discharge of the treated wastewater into receiving waters. The HTP is responsible for adhering to LARWQCB regulations as they apply to wastewater generated by the project. The proposed project would remain consistent with the operational activities currently occurring at the campus and at similar residential uses and would, therefore, not be expected to exceed any wastewater treatment requirements of the LWRWQCB. The impact would be less than significant.



SOURCE: California State University Northridge Master Plan – September 2005

FIGURE **3.10-2**

Proposed Wastewater System

750-001•10/05

Near-Term Project-Level Analysis

As stated in **Section 2.0, Project Description**, the following Master Plan Phase 1 development projects are evaluated at the project level in this EIR: the Transit Center, Parking Structure G3, University Park Student Housing, a Student Housing Administration Building, the Science 5 facility, and 250 faculty/staff housing units. Phase 2 development projects include Parking Structure G6; faculty offices and lecture hall; two lecture/laboratory facilities; the student recreation center; and 100 faculty/staff housing units. The Valley Performing Arts Center, already evaluated at the program level in the 1998 Master Plan EIR, is evaluated at the project level in this EIR.

WW-1: Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

WW-2: Would the project require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Campus Wastewater Generation

Table 3.10-3, **Summary of Projected Total Phase 1 and 2 Wastewater Generation for 2015**, shows projected campus wastewater generation for Phases 1 and 2. As shown, the annual campus wastewater generation, including student and faculty/staff housing, would be 2.65 MGD, or 966 MGY. This represents an increase of 1.56 MGD or 568 MGY between 2005 and 2035.

Table 3.10-3
Summary of Projected Total Phase 1 and 2 Wastewater Generation for 2015

Year	Use	Million Gallons Per Day (MGD)	Million Gallons Per Year (MGY)
Existing	Campus	1.09	398
2009	Phase 1	0.17	63
2015	Phase 2	0.30	1.08
2015	Subtotal Phases 1 and 2	1.56	568
2015	**Total**	2.65	966

*Source: Wheeler and Gray, October 2005. See **Appendix F** for calculations.*

Treatment Facilities

As stated above, currently, the HTP system is treating 350 MGD, 240 MGD below its rated capacity. The additional 1.56 MGD of wastewater generated by the near-term Master Plan Projects represents a relatively small fraction (approximately 0.65 percent) of the available 240 MGD capacity of the HTP. Consistent with CSU policy, CSUN would continue to implement conservation measures to reduce the use of water, further reducing sewage generation.

Based on the information above, there is adequate capacity at the HTP to accommodate the project's wastewater generation and impacts wastewater treatment facilities would be less than significant.

Collection Facilities

The existing on-and off-campus wastewater facilities systems would need to be upgraded and extended, and new connections would be required to meet the future demands of the near-term Master Plan projects. The impacts of the near-term Master Plan projects with regard to connections to and coordination with the City DPW would be the same as the Master Plan project. The DPW requires that the new development connect to the City's existing sewer system. The Campus is responsible for all lines within its property and for installing connections to the DPW's lines off-campus. It would then be the responsibility of the DPW to upgrade the wastewater collection and treatment systems by providing relief for existing trunk lines nearing capacity and expanding treatment facilities. Connection to the DPW's lines would require coordination with the DPW to ensure the off-site DPW improvements can accommodate on-site Campus improvements. . The DPW would require a development fee for each new connection. CSU/CSUN would coordinate directly with the DPW at the appropriate times during project phasing. Mitigation Measure WW-2 requires that CSUN comply with the requirements of Government Code §54999 with respect to connections to off-site wastewater facilities and improvements to off-site wastewater facilities.

The proposed Campus wastewater system is shown in **Figure 3.10-2, Proposed Wastewater System**. The required upgrades and connections would be determined at the time that schematic designs for individual project components are developed and implemented. As stated above, connection to the DPW's lines would require coordination with the DPW to ensure the off-site DPW improvements can accommodate on-campus improvements.

Even with implementation of new on-campus and off-site improvements, impacts with regard to off-site wastewater service facilities would be significant and unavoidable.

WW-3: Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

As stated above, the Los Angeles Regional Water Quality Control Board (LARWQCB) regulates the treatment of wastewater at treatment plants and the discharge of the treated wastewater into receiving waters. The impact of the near-term Master Plan projects would be similar to the Master Plan project and would be less than significant.

3.10.7 MITIGATION MEASURES

Program-Level Analysis

WW-1: CSU, CSUN, or its designee shall consult with the City of Los Angeles Department of Public Works on exact sizing and extensions required for wastewater lines that will serve each project component at the time it undertakes site-specific design plans.

WW-2: CSU, CSUN, or its designee shall comply with the requirements of Government Code §54999 with respect to connections to off-site wastewater facilities and improvements to off-site wastewater facilities.

Near-Term Project-Level Analysis

The mitigation measures applicable to the program level project would apply to the near-term project level project. No additional mitigation is required or recommended.

3.10.8 CUMULATIVE IMPACTS

The proposed project would result in an incremental increase in demand for wastewater facilities. However, the implementation of the mitigation measures proposed and the implementation of similar mitigation measures by other related projects would reduce any potentially significant cumulative impacts with regard to the wastewater treatment system to a level that is less than significant. The project's contribution to cumulatively considerable impacts on off-site wastewater collection and conveyance facilities would be significant and unavoidable.

3.10.9 UNAVOIDABLE SIGNIFICANT IMPACTS/IMPACTS AFTER MITIGATION

Even with the implementation of the recommended mitigation measure, impacts to the off-site wastewater collection and conveyance facilities would be significant and unavoidable.