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Draft Mitigated Negative Declaration for the Telemedicine/PRIME-LC Facility Project

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P&D Consultants

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Prepared for:
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1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION

The University of California, Irvine (UCI) is proposing the development of an academic building to house new programs within the UCI School of Medicine (SOM): Telemedicine and PRIME-LC. The project will consist of an approximately 39,000 assignable square feet (ASF) four story building. This facility would support new initiatives and technologies in teaching and health care delivery in UCI's SOM.

1.2 PROJECT LOCATION

The project site is located within the UCI campus, which is located in central/coastal Orange County in the southern portion of the City of Irvine (see Figure 1, Regional Location Map). The UCI campus is bordered by the Cities of Irvine (north and east) and Newport Beach (south and west). More specifically, the proposed project is located within the Health Sciences Complex adjacent to Irvine Hall (building number 835; see Figure 2, Vicinity Map).

1.3 SITE DESCRIPTION

The 0.5 acre project site is located in the existing Irvine Hall Plaza area directly south of Irvine Hall (see Figure 3, Concept Site Plan). The site is a relatively flat paved plaza area with landscaping at the perimeter. There are no existing structures on this site. Service access to the project site would occur via an existing service road located between Irvine Hall and Sprague Hall (building 839) which ultimately connects to Bison Avenue. Figure 4 provides a photograph of the existing plaza/project site.

TABLE 1
SURROUNDING LAND USES

North	Irvine Hall
South	Sprague Hall
East	Health Sciences Mall
West	Irvine Hall

Source: UCI, 2007.

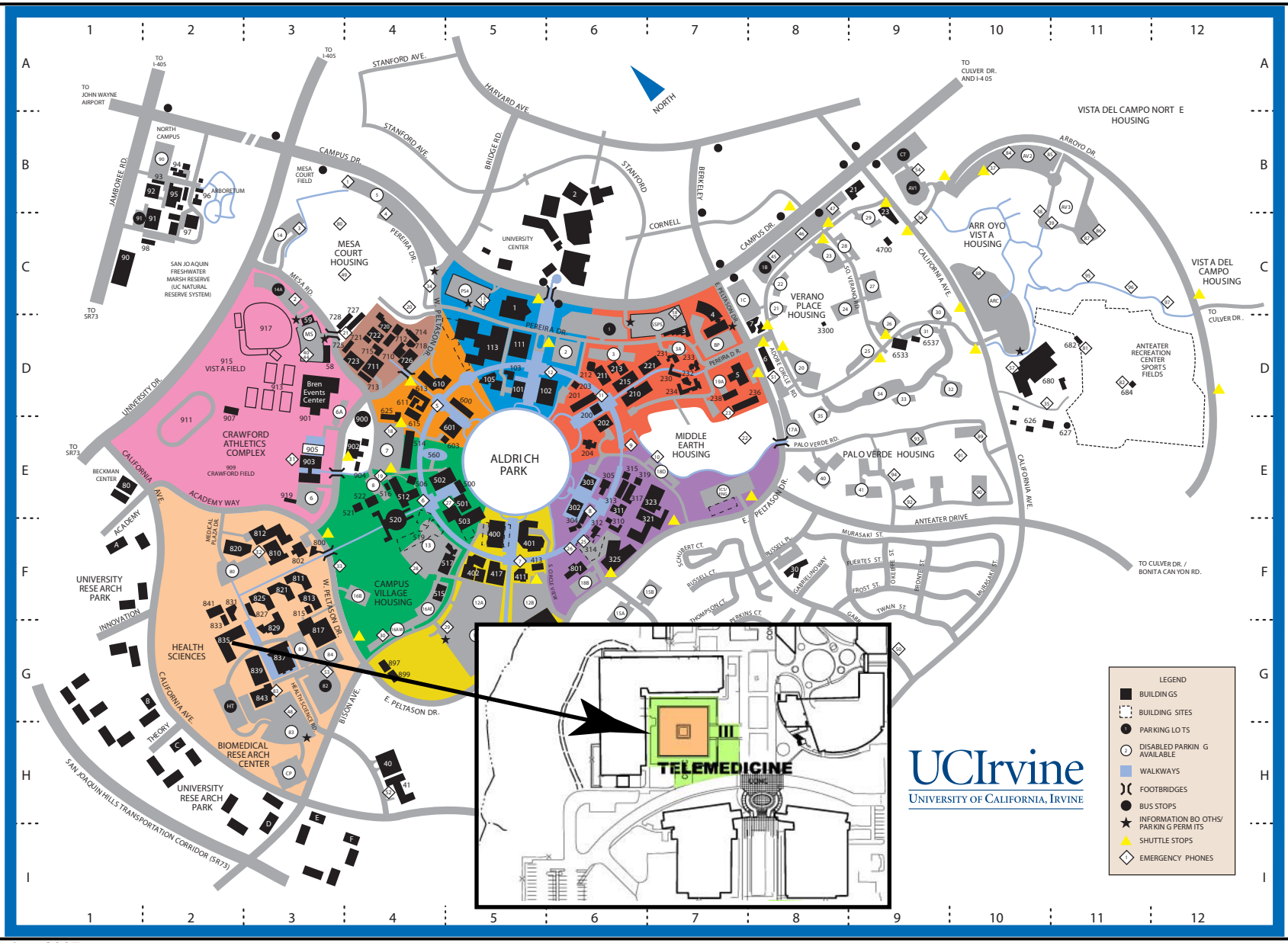
1.4 OBJECTIVES

In support of the SOM academic goals, two initiatives have been implemented: PRIME-LC and new educational, research, and clinical activities in telemedicine. PRIME-LC is one of the signature programs of UCI's SOM and a model for meeting the health care needs of a growing statewide Latino population. Telemedicine involves the use of teleconferencing facilities and technology to facilitate interactive medical training and clinical consultation between distant parties.

Space assignments in the SOM are at a maximum capacity, preventing SOM programs from providing the state-of-the-art facilities and technologies necessary to provide contemporary health care delivery and training for both the PRIME students and the general medical student enrollment. Currently, the SOM is unable to provide the facilities needed to add simulated clinical experiences to its curriculum, although this type of instruction is rapidly becoming one of the foundations of modern and safe medical training. Existing instructional laboratory facilities are already overcrowded and overscheduled, and the addition of

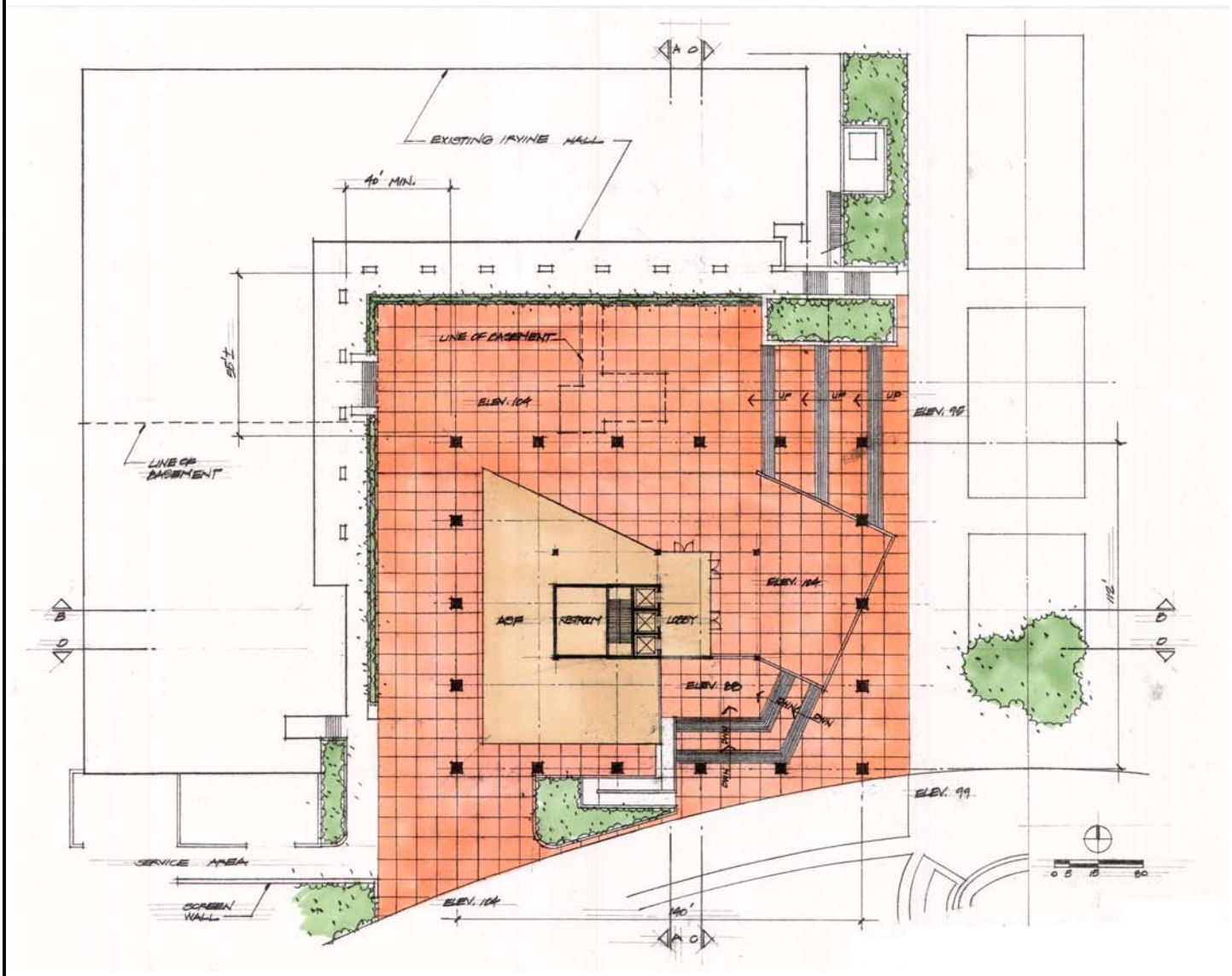
Source: P&D Consultants, 2007.

Figure 1
Regional Location Map



Source: UCIrvine, 2007.

Figure 2
Vicinity Map



Source: UCIrvine, 2007.

Figure 3
Concept Site Plan

Source: P&D Consultants, 2007.

Figure 4
Site Photo

PRIME-LC students are contributing to these space needs. Research and office space is also fully occupied; in some cases, three to four staff members share an office.

In order to accommodate the needs of the SOM's new educational, research, and clinical activities in telemedicine and PRIME-LC, additional space is required. The proposed project will address these needs by providing interactive tele-video and telemedicine "virtual care" consultation space, instructional and research space, and academic and administrative offices to support these programs.

1.5 PROPOSED PROJECT/SITE PREPARATION

Implementation of the proposed project would result in the construction of a new Telemedicine/PRIME-LC facility that is approximately 65,000 gross square feet (GSF). This building would provide approximately 39,000 ASF of new space for the SOM. The proposed project would generate 60 additional students (48 from PRIME-LC enrollment and 12 from the master's level), 13 faculty, and approximately 80 staff members. The proposed space type and associated assignable square footage would be grouped into the following four categories (see Table 2 for breakdown).

- *Instructional Space* includes all spaces whose primary function is to support basic and/or applied teaching activities (classrooms, clinical labs, etc.).

- *Research Space* includes all spaces whose primary function is to support basic and/or applied research activities (dry laboratories and research offices).

- *Office and Support Spaces* includes all offices for faculty and administrative staff, as well as all support spaces (mail/copy rooms, file rooms, workrooms, etc.).

- *Surge Space* (future expansion space for the SOM).

TABLE 2
TELEMEDICINE/PRIME-LC FACILITY SPACE BREAKDOWN
(ASF)

Space Type	ASF
Instructional Space	
Instructional Space	7,315
Simulation Center	2,743
Clinical Skills Center	6,587
Research Space	
Research Space	5,842
Office and Support Spaces	
General Offices	1,718
Medical Education Administrative Suite	3,000
Admissions/PRIME-LC/Outreach/Financial Aid Suite	2,832
Surge Space	8,963
Total	**39,000**

Source: Telemedicine/PRIME-LC Project Program, 2007.

The proposed project will have a footprint of approximately 17,000 square feet and will consist of approximately four floors and a partial basement. Project construction activities would involve demolition of the existing plaza improvements, site grading, utilities, site improvements, building construction and landscaping. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared in

conformance with National Pollutant Discharge Elimination System (NPDES) requirements to address erosion control and stormwater quality for all areas that will be disturbed by constructions.

Grading and site drainage will remain generally consistent with existing conditions. Existing utility systems serving Irvine Hall will be extended to serve the proposed project. Project implementation may require the relocation of some existing on-site underground utilities including sewer and storm drainage. The irrigation system will use reclaimed water to irrigate drought tolerant plants.

The adjacent buildings will remain in place and fully operational during construction. The proposed project is scheduled to begin the design and construction documents phases later in 2007, and construction is expected to be complete as early as the last quarter of 2009.

1.6 PROJECT APPROVAL

1.6.1 UNIVERSITY OF CALIFORNIA

The Board of Regents of the University of California (The Regents) is the Lead Agency under California Environmental Quality Act (CEQA) and is responsible for reviewing and certifying the adequacy of the environmental document and approving the proposed project. This Initial Study (IS) was prepared pursuant to the requirements of Section 15063 of the CEQA Guidelines. This IS has been prepared to determine if any significant environmental effects would be introduced with implementation of the proposed project (construction and operation) and to determine whether to prepare an environmental impact report (EIR) or a negative declaration. The analysis contained in this IS supports the conclusion that the proposed project, with mitigation incorporated, will not result in any potentially significant environmental effects. The IS and Draft Mitigated Negative Declaration (MND) will be circulated for public review and comment prior to the certification of the IS/MND and project approval. It is anticipated that The Regents will consider the proposed project for approval in the later part of 2007.

1.6.2 SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

Prior to commencing construction, UCI will prepare a Storm Water Pollution and Prevention Plan (SWPPP) and file a Notice of Intent with the Santa Ana Regional Water Quality Control Board (RWQCB), pursuant to their authority to issue a General Construction Permit under Section 402 of the federal Clean Water Act. This permit shall comply with all applicable National Pollutant Discharge Elimination System (NPDES) regulations during and after construction and identify best management practices for the proposed project.

1.7 CONSISTENCY WITH THE LRDP AND LRDP EIR

Each University of California campus is required to prepare a Long Range Development Plan (LRDP) that sets forth concepts, principles, and plans to guide future growth of that campus. The Regents adopted UCI's current LRDP in 1989. A comprehensive LRDP update and associated LRDP Program EIR is currently being prepared and will be considered for certification/approval by The Regents in the latter part of 2007.

1.7.1 RELATIONSHIP TO THE 1989 LRDP

The proposed project would be located in the Health Sciences Complex of the UCI campus and would be consistent with the current LRDP land use designation. The proposed project would add 65,000 GSF to the Health Sciences Complex, which is currently comprised of approximately 397,727 GSF. With

implementation of the proposed project, the Health Sciences Complex would have 462,727 GSF of building space, which is within the 1,439,100 GSF identified for the Health Sciences Complex by the 1989 LRDP. The proposed project would not conflict with any goals or objectives of the 1989 LRDP. Even with the students that would be accommodated by the proposed project, total enrollment on the UCI campus would be below the level projected in the 1989 LRDP.

1.7.2 RELATIONSHIP TO THE DRAFT 2007 LRDP

A comprehensive update to the LRDP (Draft 2007 LRDP) is currently underway to address UCI's development needs through the horizon year 2025-26. The Draft 2007 LRDP is anticipated to be generally consistent with the 1989 LRDP and would accommodate the proposed project without exceeding space allocations within the Health Sciences Complex. Therefore, the proposed project is anticipated to be consistent with the 2007 LRDP.

1.7.3 RELATIONSHIP TO THE 1989 LRDP EIR AND THE DRAFT 2007 LRDP EIR

This IS/MND is an independent CEQA analysis and is not tiered from either the 1989 LRDP EIR, as amended, or the Draft 2007 LRDP EIR currently being prepared. It should be noted that this IS/MND has been prepared based upon studies and analyses performed for the 1989 LRDP EIR for background and setting information applicable to the project. The 1989 LRDP EIR, as amended, is hereby incorporated by reference into this IS/MND. Technical studies performed for the Draft 2007 LRDP EIR are also relied upon for some of the impact analyses for this project. However, all of the potential impacts and mitigation associated with the proposed project are discussed in this IS/MND. It is projected that construction of the proposed project will occur after the 2007 LRDP Update has been considered by The Regents for approved.

2.0 PROJECT INFORMATION

University of California

Campus: Irvine Project No. 991970

Project title:
Telemedicine/PRIME-LC Facility

Lead Agency Name and Address:
University of California, Irvine
Office of Campus & Environmental Planning
750 University Tower
Irvine, California 92697-2325

Contact Person and Phone Number:
Alex S. Marks, AICP, Associate Planner, 949.824.8692

Project location:
The project site is located within the UCI campus, which is located in central/coastal Orange County in the southern portion of the City of Irvine. The UCI campus is bordered by the Cities of Irvine (north and east) and Newport Beach (south and west). More specifically, the proposed project is located within the Health Sciences Complex adjacent to Irvine Hall.

Project Sponsor's Name and Address:
University of California, Irvine
Office of Campus & Environmental Planning
750 University Tower
Irvine, California 92697-2325

Custodian of the Administrative Record for this Project:
Alex S. Marks, AICP, Associate Planner
Office of Campus & Environmental Planning
750 University Tower
Irvine, California 92697-2325

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	

3.1 DETERMINATION

On the basis of the initial evaluation that follows:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A TIERED ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental document is required. FINDINGS consistent with this determination would be prepared.

Signature — Date: 5/15/07

Richard Demerjian — Date: 5.15.07

Printed Name

4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 PURPOSE OF THE INITIAL STUDY

This IS evaluates the proposed project, the potential environmental effects associated with its construction, operation, and measures that may be taken to mitigate any potentially significant environmental effects identified in the IS. The analysis contained in this IS supports the conclusion that the proposed project, with mitigation incorporated, will not result in any potentially significant environmental effects. The IS/MND will be circulated for public review and comment prior to consideration of the IS/MND and any public comments and responses, and approval of the proposed project by The Regents. It is anticipated that The Regents will consider the proposed project for approval in August 2007.

4.2 RESPONSE COLUMN HEADING DEFINITIONS

The next section of the IS contains a detailed checklist consisting of questions associated with a variety of environmental parameters. The questions form the basis for assessing the environmental consequences of the proposed project and determining whether such consequences could be significant and can be adequately addressed based on current information, or would require further analysis. Responses for each item are noted under one of four column headings, each defined as follows.

A. **Potentially Significant Impact** is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. **Less than Significant with Mitigation Incorporated** applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact."

C. **Less Than Significant Impact** applies where the project creates no significant impacts, only Less than Significant impacts.

D. **No Impact** applies where a project does not create an impact in that category.

4.3 ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS *Would the project:*				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
2. AGRICULTURE RESOURCES *Would the project:*				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
3. AIR QUALITY *Would the project:*				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES *Would the project:*				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local applicable policies protecting biological resources?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	☐	☐	☐	☒
5. CULTURAL RESOURCES *Would the project:*				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6. GEOLOGY AND SOILS *Would the project:*				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
7. HAZARDS AND HAZARDOUS MATERIALS Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. 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?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
8. HYDROLOGY AND WATER QUALITY *Would the project:*				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f. Otherwise substantially degrade water quality?	☐	☐	☐	☒
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
9. LAND USE AND PLANNING *Would the project:*				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the LRDP, general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
10. MINERAL RESOURCES *Would the project:*				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒
11. NOISE *Would the project result in:*				
a. Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
12. POPULATION AND HOUSING *Would the project:*				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
13. PUBLIC SERVICES				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
14. RECREATION				
a. 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?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
15. TRANSPORTATION/TRAFFIC *Would the project:*				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Result in inadequate parking capacity?	☐	☐	☐	☒
g. Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
16. UTILITIES AND SERVICE SYSTEMS *Would the project:*				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with applicable federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
17. MANDATORY FINDINGS OF SIGNIFICANCE				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

5.0 DISCUSSION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

5.1 AESTHETICS

Would the project:

a. Have a substantial adverse effect on a scenic vista?

No impact. The proposed project is located in a highly urbanized academic area of campus (Health Sciences Complex), and the project site is not part of any scenic vista. Therefore, no significant impacts to a scenic vista would occur and no mitigation measures would be required.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

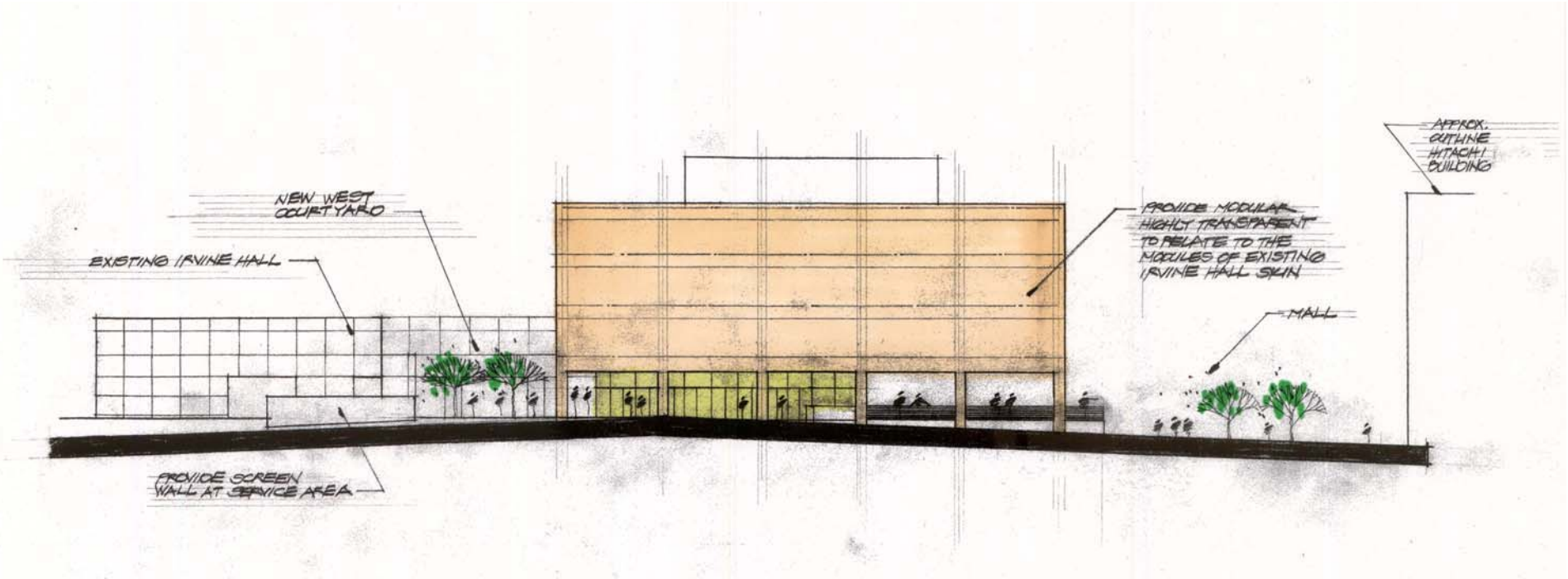
Less Than Significant Impact. There are no structures on the project site and those that surround it do not have characteristics which would qualify them as a resource of historic significance. In addition, there are no rock outcroppings or any other unique and scenic natural features within or adjacent to the proposed project site. Implementation of the proposed project would require the removal of several ornamental trees and shrubs. These ornamental trees and shrubs are common elements and are not considered scenic resources. The removal and replacement of these trees and shrubs is not considered to be a significant impact. Therefore, impacts to scenic resources, including trees, rock outcroppings, and historic buildings would be less than significant and no mitigation measures would be required.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The proposed project is located on the UCI campus within the Health Sciences Complex adjacent to Irvine Hall, a highly urbanized portion of the campus. The project site is a relatively flat concrete/brick area (hardscape) with a landscaped perimeter in the vicinity of several existing multi-level buildings. To the north of the proposed project site is Irvine Hall, a one-story building, and to the south is Sprague Hall, a three-story building. The proposed project would thus be of similar height and scale as surrounding structures. Pursuant to the University's current design practices, the building materials, architectural design elements, colors and geometric rhythms will be similar and/or complementary to the characteristics of the Health Sciences Complex. Beyond those parameters, more specific visual features will be determined during the design/build phase of this project. Therefore, the proposed project would be visually compatible with the surrounding structural elements and would not degrade the existing visual character or quality of the site and its surroundings (see Figures 5-8 on next page). Impacts would be considered less than significant and no mitigation measures would be required.

d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

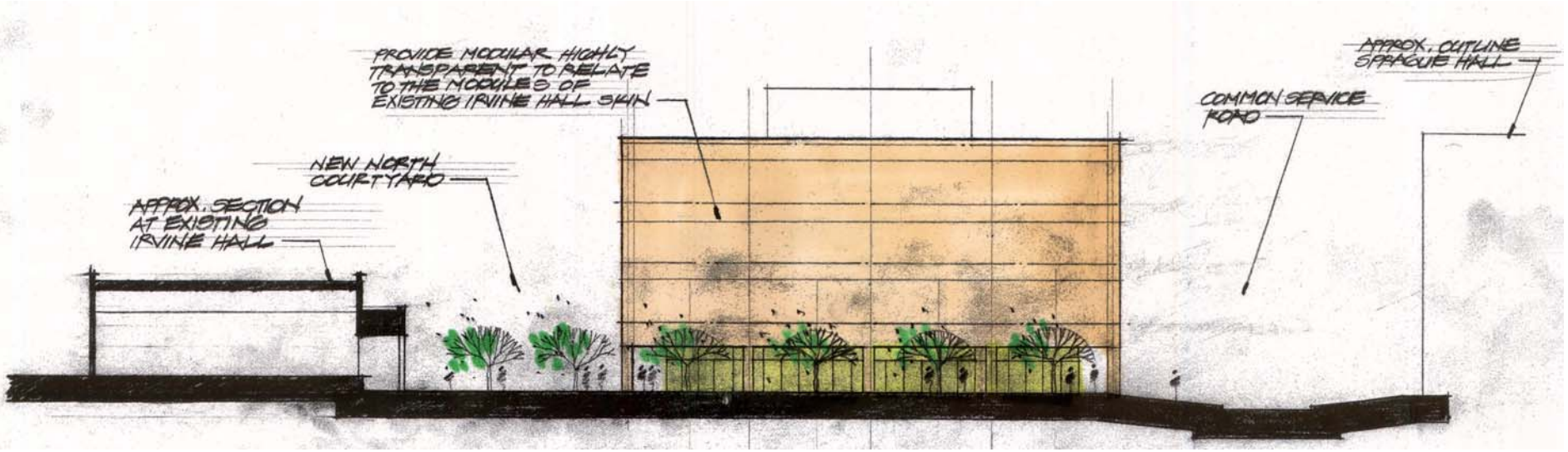
Less Than Significant Impact. Implementation of the proposed project would contribute additional lighting within the project area. The project site is located within an urban area of campus that presently generates similar lighting sources. Illumination is provided by a variety of building and pole-mounted outdoor lighting on the project site and its immediate vicinity. The proposed project will incorporate external lighting for visibility and safety; however, the project site is internal to the



Not to Scale

Source: UCIrvine, 2007.

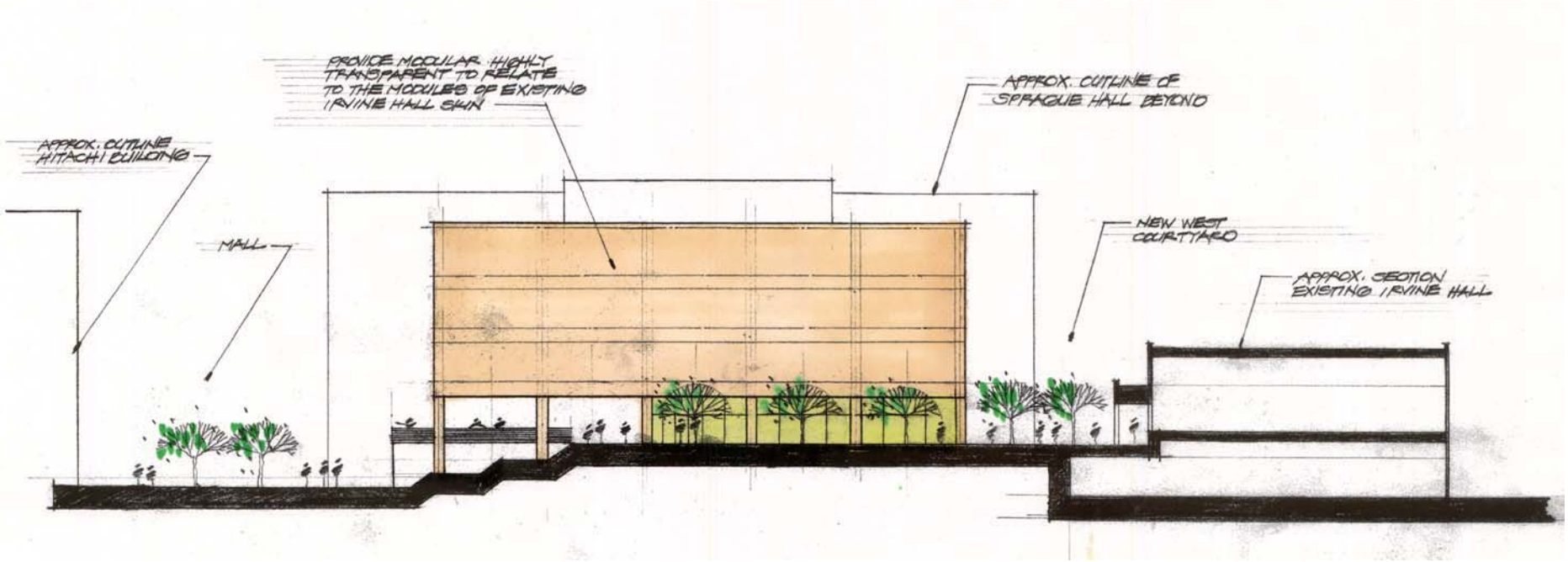
Figure 5
Building Elevation Looking North



Not to Scale

Source: UCIrvine, 2007.

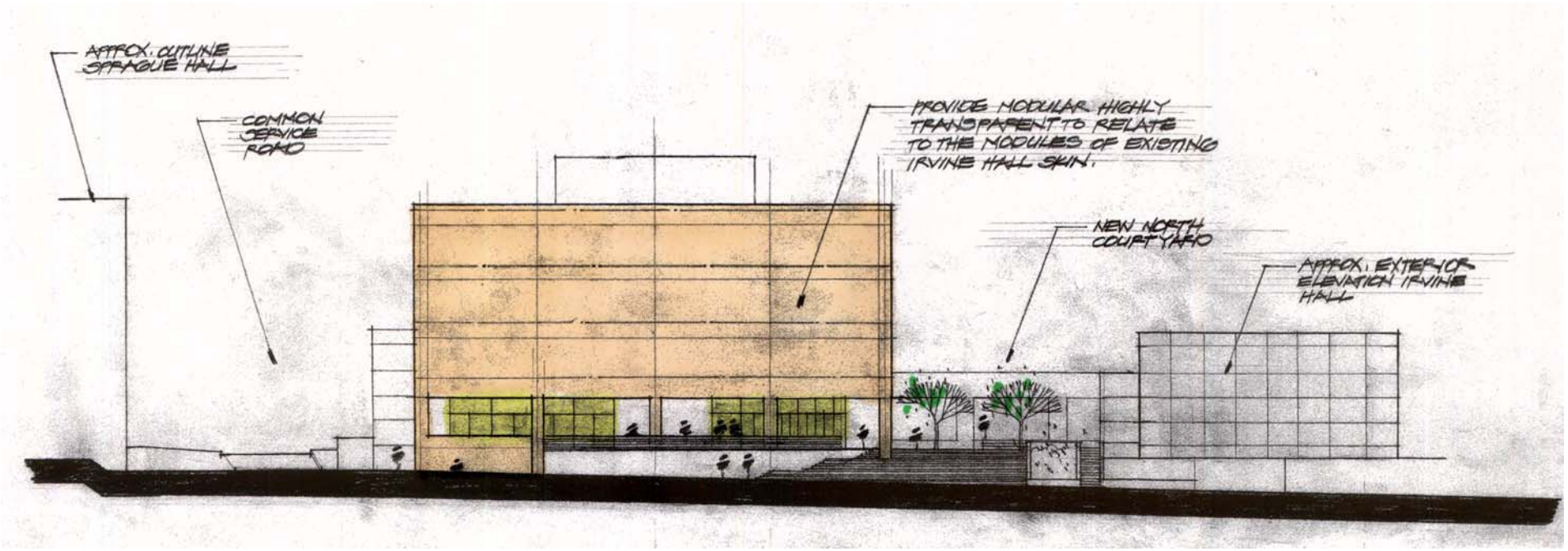
Figure 6
Building Elevation Looking East



Not to Scale

Source: UCIrvine, 2007.

Figure 7
Building Elevation Looking South



Not to Scale

Source: UCIrvine, 2007.

Figure 8
Building Elevation Looking West

campus and is not located adjacent to housing or other land uses considered sensitive to night lighting. In addition, night lighting would generate illumination within a confined area and would not create glare beyond the immediate project site. Windows and other glazing building elements would be consistent with the University's current design practices which would not allow the use of reflective materials that could cause daytime glare. In addition, lighting design will be consistent with the Illuminating Engineering Society of North American Lighting Handbook (Ninth Edition). Therefore, impacts related to substantial light or glare would be considered less than significant and no mitigation measures would be required.

5.2 AGRICULTURE RESOURCES

Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

c. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No Impact (a, b, and c). The project site is in a fully urbanized academic area of campus and is not located in an area designated as Farmland. According to the State Department of Conservation, Division of Land Resources Protection, the entire UCI campus is designated as "Urban and Built-Up" or "Other Land," neither of which is considered Farmland. There is no Williamson Act contract affecting the project site or any adjacent site that potentially could be impacted by project implementation. The proposed project would not introduce any changes that would result in conversion of Farmland. Therefore, no significant impacts to Farmland would occur and no mitigation measures would be required.

5.3 AIR QUALITY

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The project was evaluated against screening thresholds established for construction and operational phase activities by the South Coast Air Quality Management District (SCAQMD)[1]. These construction and operational phase screening thresholds assist in implementation of the Air Quality Management Plan's goal of bringing the air basin into compliance with state and federal ambient air quality standards by identifying which projects would result in significant levels of air pollution. The proposed project was below the screening thresholds established for the construction and operational phase of the project, and would therefore, not result in a significant impact to air quality. Based on the relatively small magnitude of air pollutant emissions associated with the project, the proposed project would not result in any conflict with, or obstruction of, the objectives or implementation of the SCAQMD Air Quality Management Plan. No impact would occur and no mitigation measures would be required.

[1] South Coast Air Quality Management District, CEQA Air Quality Handbook, November 1993.

b) ***Violate any air quality standard or contribute substantially to an existing or projected air quality violation?***

Less Than Significant Impact. The SCAQMD has established significance thresholds for construction which were used to evaluate potential impacts associated with the proposed project. Construction source emissions were calculated using the URBEMIS2002 (version 8.7) emissions inventory model originally developed by the California Air Resources Board (CARB).

Implementation of the project components, including demolition and construction activities, would generate construction-related emissions resulting from engine exhaust and fugitive dust. Analysis of the potential air quality impacts of the project was conducted for the construction phase, assumed to begin in November 2007 for a period of two years, or 24 months, based on the following activities: (1) demolition operations; (2) travel by construction workers to the site; (3) delivery and hauling of construction materials and supplies to and from the project site; (4) fuel combustion by on-site construction equipment; and (5) haul truck used in demolition debris removal.

The air quality analysis evaluated the demolition and removal of the existing concrete/brick area and landscaped perimeter. As depicted in Phase 1 of Table AQ-1, demolition would not generate emissions above the SCAQMD construction emission thresholds. The project's grading and building construction phases including asphalt and architectural coatings, as depicted in Table AQ-1 (Phases 2 and 3), would also result in emissions below the SCAQMD thresholds . Therefore, construction of the proposed project would not result in emissions that are above the SCAQMD construction emissions threshold for criteria pollutants, specifically carbon monoxide (CO), reactive organic gases (ROG), sulfur oxides (SO_x), nitrogen oxides (NO_x), and particulate matter (PM_{10}) during construction. Therefore, the construction of the proposed project would not result in significant air quality impacts.

The SCAQMD has also established significance thresholds, which were used to evaluate potential impacts associated with operation of the proposed project. Operation source emissions were calculated using the URBEMIS2002 (version 8.7) emissions inventory model originally developed by the CARB. Operation of the proposed project would increase vehicle emissions generated by mobile sources as well as emissions generated by stationary sources, including natural gas and electricity consumption. Mobile source emissions related to trips to and from the project site were calculated using the *ITE Trip Generation* (7^{th} Edition, 2003) at 2.38 daily trips per student for 311 students for a total daily trip generation of 740 daily trips. It should be noted that the proposed project would only generate 60 additional students, 13 faculty, and approximately 80 staff members. The 311 students represents a worse case scenario based on the building square footage (refer to Section 5.15 for a detailed discussion). Mobile and stationary source emissions for the proposed project would result in a net increase in CO, ROG, SO_x, NO_x, and PM_{10}, as shown in Table AQ-2 and detailed in Appendix A. As indicated in Table AQ-2, the net increase in pollutants would be below the SCAQMD daily thresholds for the operations of the proposed project. As such, the resulting stationary and mobile source emissions generated during operation of the proposed project would not result in a significant impact on air quality and no mitigation measures would be required.

TABLE AQ-1
AIR POLLUTANT EMISSIONS FROM CONSTRUCTION ACTIVITIES[2]
(LBS/DAY)

	CO	ROG	NO_x	PM_{10}	SO_x
Daily Emissions[1] (lbs/day)					
Phase 1 (Demolition)					
Fugitive Dust	--	--	--	0.52	--
Off-Road Diesel	20.15	2.72	20.78	0.93	--
On-Road Diesel	0.31	0.08	1.82	0.04	<1
Worker Trips	0.55	0.02	0.06	0.00	<1
Maximum Total	21.01	2.82	22.66	1.49	<1
Phase 2 (Site Grading)					
Fugitive Dust	--	--	--	5.00	--
Off-Road Diesel	46.63	5.84	39.62	1.59	--
On-Road Diesel	0.03	0.01	0.20	0.04	0
Worker Trips	1.74	0.08	0.16	0.01	0
Maximum Total	48.40	5.93	39.98	6.60	0
Phase 3 (Building Construction)					
Bldg Const Worker Trips	0.66	0.05	0.03	0.01	<1
Arch Coating Off-Gas	--	48.12	--	--	--
Arch Coating Worker Trips	2.52	0.10	0.26	0.02	<1
Asphalt Off-Gas	--	0.06	--	--	--
Asphalt Off-Road Diesel	27.25	3.34	21.74	0.82	
Asphalt On-Road Diesel	0.05	0.01	0.24	0.01	--
Asphalt Worker Trips	1.10	0.04	0.11	0.01	
Maximum Total	48.40	51.68	22.35	0.86	<1
SCAQMD Daily Threshold	**550**	**75**	**100**	**150**	**150**
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**

Source: P&D Consultants, April 2007.
Note: Results in the table represent the largest emission estimates generated per phase per year. Worse case conditions for all phases would result in 2007.

TABLE AQ-2
OPERATIONAL EMISSIONS
(LBS/DAY)

	CO	ROG	NO_x	PM_{10}	SO_x
Mobile Sources[3]	59.62	8.80	5.73	6.44	0.04
Stationary Sources[4] (Electricity/natural gas consumption)	0.89	0.52	0.28	0.00	0.00
Total	60.52	9.32	6.01	6.44	0.04
SCAQMD Standard	**550**	**55**	**55**	**150**	**150**
Significant Operational Emissions?	**NO**	**NO**	**NO**	**NO**	**NO**

Source: P&D Consultants, April 2007.
Note: Any apparent discrepancies between the subtotals for area sources and vehicles sources and the totals are due to rounding.

[2] Emissions based on the CARB URBEMIS2002 model.
[3] Vehicle emissions based on the CARB URBEMIS2002 model.
[4] Emission from energy consumption based on methodologies established in the SCAQMD CEQA Air Quality Handbook, 1993. Emissions from energy consumption were less than a pound for each criteria pollutant.

Though construction of the proposed project is not expected to result in significant adverse short-term impacts to criteria air pollutants, the following mitigation measures have been included to reduce the generation of air pollutants to the extent feasible:

AQ-1 The contractor shall use low Volatile Organic Compounds (VOC) content architectural coatings (e.g. "Green Label") during the construction of the project and shall use it in accordance with SCAQMD regulations and guidelines.

AQ-2 During construction, the contractor shall comply with Rule 402 – Nuisance, Rule 403 – Fugitive Dust and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities. Under Rule 403, the site shall be subject to the following requirements:

- The contractor shall prevent visible emissions beyond the property line and shall prevent emissions from vehicular-related traffic from exceeding 20 percent opacity (Rule 403 Implementation Handbook establishes procedures for measuring opacity);
- Conduct watering for all sources of dust (demolition, paved and unpaved roadways, trenching, and grading);
- Upwind and downwind simultaneous samples shall not exceed 50 $\mu g/m^3$ of PM10;
- Street sweeping shall be initiated if visible dust is deposited upon public paved roadways due to the project.

AQ-3 All unpaved construction areas shall be watered at least twice a day during excavation and construction to reduce dust emissions and meet SCAQMD Rule 403, which prohibits dust clouds to be visible beyond the project site boundaries.

AQ-4 All clearing, grading, or earthmoving activities shall be discontinued during periods of high winds (i.e., greater than 25 mph), so to prevent excessive amounts of dust.

AQ-5 All materials transported off-site shall be watered sufficiently and maintain a minimum of six inches of freeboard between the transported materials and the top of the trailer to prevent excessive amount of dust in accordance with the requirements of California Vehicle Code Section 23114.

AQ-6 Contractors shall maintain and operate construction equipment to minimize exhaust emissions.

AQ-7 On-site construction vehicle speeds shall be limited to a maximum of 15 mph.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

No Impact. Pollutants generated by the proposed project would be below the SCAQMD thresholds for construction activities. These thresholds are designed to identify those projects which may result in significant levels of air pollution and to assist the region in attaining the applicable state and federal ambient air quality standards. Because the project would not exceed these thresholds, its emissions

are not cumulatively considerable or significant. No impacts would occur and no mitigation measures would be required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. As stated previously, the proposed building site is located within a highly urbanized portion of the UCI campus, open lawn areas and walkways are located to the south and east, and Irvine Hall to the north and west. As previously discussed, construction and operation of the proposed project would not exceed the SCAQMD construction or operational screening thresholds with the incorporation of mitigation measures, and therefore, would not result in any significant air pollution conditions. Consequently, the proposed project would not expose sensitive receptors to significant air pollution concentrations. No significant impacts would occur and no mitigation measures would be required.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. The proposed project would not create unusual or objectionable odors. Odors may be associated with the operation of diesel engines during site preparation and building construction; however, these odors are typical of urbanized environments and would be subject to construction and air quality regulations, including proper maintenance of diesel engines to minimize engine emissions. These emissions would also be of short duration and would be quickly dispersed into the atmosphere. Therefore, the proposed project would not create objectionable odor impacts that would affect a substantial number of people. No impacts would occur and no mitigation measures would be required.

5.4 BIOLOGICAL RESOURCES

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The project site is within an urbanized area of campus and has been previously disturbed. The project site consists of a paved plaza with ornamental landscaping, and has no existing structures. As a result, the project site contains minimal habitat value and does not support sensitive wildlife or plant species. No candidate, sensitive, or special status species occupy the project site. Therefore, the proposed project would not result in any substantial adverse effects to federal or state listed or other sensitive designated species and no mitigation measures would be required.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. As noted in the previous response, the project site is completely developed, with ornamental landscaping elements that have negligible habitat value. No riparian habitat or other sensitive natural community is present on or adjacent to the project site. Therefore, there is no potential for adverse effects on riparian habitat or other sensitive natural communities and no mitigation measures would be required.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. There are no legally defined wetlands on or near project site, so construction activities would not occur on any federally protected wetlands. Therefore, no potentially significant impacts related to federally protected wetlands would occur and no mitigation measures would be required.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The project site is located in an urbanized part of campus, where there is no water body or other wildlife habitat that could support movement of native fish or wildlife species. There is no native wildlife nursery on the project site. Therefore, the proposed project would not interfere with the movement of any native or established resident or migratory fish or wildlife species, or impede with the use of native wildlife nursery sites. No significant impact would occur and no mitigation measures would be required.

e. Conflict with any local applicable policies protecting biological resources?

No Impact. The project site is within an urbanized part of campus and has been previously disturbed. Because of the urban nature of the site, there are no biological resources of significant value on the project site. Implementation of the proposed project would not conflict with local policies protecting biological resources. No impact would occur and no mitigation measures would be required.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?

No Impact. The proposed project location does not contain biological resources that are managed under any conservation plans. Therefore, the project would not result in any conflicts with conservation plans. No impact would occur and no mitigation measures would be required.

5.5 CULTURAL RESOURCES

Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No Impact. As part of the 1989 LRDP EIR, the UCI campus was surveyed to identify significant and potentially significant cultural resources in the planning area. No historic resources were found on or near the proposed project site and the structures in its vicinity do not have any characteristics that would qualify them as historical resources. There is no historical resource value associated with the site itself. Therefore, implementation of the proposed project would not affect historical resources and no mitigation measures would be required.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No Impact. According to the 1989 LRDP EIR, twenty archaeological sites within the LRDP planning area have been identified, most of which have been discovered by previous surveys. None of these sites are known to exist within the project site or vicinity. There is no evidence to suggest that project-related grading activities could have any impact on an archeological resource. Therefore, no impacts are anticipated and no mitigation measures are required.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant With Mitigation Incorporated. The project site is within an urbanized area of campus and has been previously disturbed. However, according to the 1989 LRDP EIR, majority of the UCI campus, including the project site, was identified as part of a "high-sensitivity" area for paleontological resources. Therefore, there is a possibility that paleontological resources could be found in native soil materials during the grading/excavation phase. Any adverse impacts related to paleontological resources would be reduced to less than significant with the incorporation of the following mitigation measure.

CR-1 A qualified paleontologist shall be retained to perform periodic project-specific inspections of the excavations and to salvage exposed fossils. The paleontologist shall be allowed to divert or direct grading in the area of an exposed fossil in order to facilitate evaluation and, if necessary, salvage the exposed fossil. Due to the small nature of the fossils present, fine mesh screens shall be used at the discretion of the paleontologist at project-specific inspections to collect matrix samples for processing. Provisions for preparation and identification of any fossils collected shall be made before donation to a suitable repository. All fossils collected shall be donated to an institution with a research interest in the materials.

d. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. According to the 1989 LRDP EIR, cultural resources survey and previous surveys revealed that no human remains are known to exist within the campus planning area. Therefore, human remains are unlikely to be encountered or disturbed during the grading/excavation phase. In the unlikely event that human remains are uncoveredduring grading operations, the contractor would be required to notify the County Coroner, in accordance with Section 7050.5 of the CHSC who must then determine whether the remains are of forensic interest. If the coroner, with the aid of supervising archaeologist determines that the remains are or appear to be of a Native American, he/she would contact the Native American Heritage Commission for further investigation.

5.6 GEOLOGY AND SOILS

Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

No Impact. As stated in the Geotechnical Data Report (Appendix B) that was prepared for the proposed project, there are no active or potentially active faults currently mapped on or projected towards the project site. An active fault, by definition, is one that has ruptured in Holocene time (within the last [ten] thousand years). The project site has not been placed into an Alquist-Priolo Earthquake Fault Zone, as designated by the California Division of Mines and Geology (Geobase, Inc. 1998). The Newport-Inglewood fault (type B fault) is located about eight kilometers from the project site. The closest postulated blind thrust fault to the site is the San Joaquin Hills fault, which is postulated to be responsible for the Quaternary uplift of the San Joaquin Hills. It should be noted that the proposed project would be constructed in accordance with applicable state requirements, including Uniform Building Code seismic safety requirements. The likelihood of a direct surface fault rupture at the project site is considered remote. Implementation of the proposed project is not anticipated to expose people or structures to fault rupture hazards during a seismic event. Therefore, no impact would occur and no mitigation measures would be required.

ii. Strong seismic ground shaking?

Less Than Significant Impact. The project site is located in seismically active Southern California and prone to earthquakes, which may generate various levels of seismic ground shaking on-site. The nearest known fault to the project site is the offshore segment of the Newport-Inglewood fault. The potential severity of ground shaking depends on many factors, including distance from the originating fault, the earthquake magnitude, and the nature of the earth materials below the project site. Although implementation of the proposed project has the potential to result in the exposure of people and structures to strong ground shaking during a seismic event, this exposure is no greater than exposure present in other areas throughout the Southern California region. The proposed project would be designed and constructed in accordance with the current Uniform Building Code seismic safety requirements, which is anticipated to minimize the potential for damage. As a result, seismic ground shaking would not present a significant hazard and no mitigation measures would be required.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. According to the Geotechnical Data Report, the project site is not located within a State and County designated Seismic Hazard Zone for liquefaction potential. In addition, the State of California Seismic Hazards Zones map (2001) that covers the campus planning area indicates that the project site lies outside of any landslides or other potential permanent ground displacement hazards. Therefore, there is low potential for seismic-related ground failure, including liquefaction at the project site. No significant impact would occur and no mitigation measures would be required.

iv. Landslides?

No Impact. As stated in the preceding response, the project site lies outside of any landslide hazard zones mapped by the State of California, pursuant to Chapter 7.8, Division 2, of the California Public Resources Code (Seismic Hazards Mapping Act). The slope, soil, and moisture conditions that could produce a landslide do not exist on project site. Therefore, no impact would occur and no mitigation measures would be required.

b. Result in substantial soil erosion or the loss of topsoil?

No Impact. There is no native topsoil within the fully-developed project site. The proposed project could result in a minimal amount of soil erosion during construction activities. However, impacts would be reduced by implementation of a system of erosion and water quality BMPs identified in the

project SWPPP. Therefore, impacts related to soil erosion or the loss of topsoil would not occur and no mitigation measures would be required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. As previously noted in the responses to items a (iii) and a (iv), there are no known liquefaction or landslide hazards in or adjacent to the project site. There are no indications of potential ground instability and no reported problems at the project site involving unstable ground conditions. Any unstable materials that may be encountered during routine geotechnical investigations and the grading phase would be removed and replaced with properly engineered, compacted materials, in accordance with the recommendations in the design-level geotechnical report and routine construction practices. Through this standard practice, potentially significant impacts involving unstable geologic or soil materials will be avoided. Therefore, impacts to geologic units or soil that are unstable or become unstable would be less than significant and no mitigation measures would be required.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. Expansive soils shrink and swell in response to dry and moist conditions and can result in cracking and structural failure of pavement and foundations. Design-level geotechnical report to be conducted in accordance with standard campus design and construction practices will determine the expansive characteristics of underlying soils and identify measures to mitigate such conditions. Recommendations pertaining to expansive soils will be incorporated into grading and foundation plans. Mitigation of expansive soils is typically achieved through removal and overexcavation of those soil materials and placement of engineered fill. Adherence to the site-specific recommendations identified in the design-level geotechnical report would ensure that any areas containing expansive soils would be properly mitigated. Therefore, impacts resulting from expansive soils would be less than significant and no mitigation measures are required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project site is served by sewers and no septic tanks or other alternative waste water disposal systems are proposed. All waste water generated in the proposed facilities would be conveyed via local sewer lines to the existing UCI sanitary sewer system. Therefore, no impact would occur and no mitigation measures would be required.

5.7 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. 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?

Less Than Significant Impact (a and b). There is no evidence or record that hazardous substances or waste materials have ever been produced, stored, or disposed of on-site. The construction and operation of the proposed project would not involve the routine storage, transport, use, or disposal of a significant amount of hazardous materials. The small amount of hazardous materials that would be used during construction will be transported, used, stored, and disposed of, according to city, state, and federal regulations. Therefore, implementation of the proposed project would not result in a significant impact and no mitigation measures would be required.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no private or public schools within a quarter-mile of the project site, except those that are part of the UCI campus educational facilities. As discussed in previous responses, this project would not involve handling of hazardous or acutely hazardous materials and would not generate any significant hazardous emissions, and no mitigation measures would be required.

d. 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?

No Impact. A search of hazardous waste sites compiled pursuant to Government Code Section 65962.5 was conducted for the project site. The project site was not found during a review of sites containing hazardous materials. Therefore, the proposed project would not be located on a site that is included on a list of hazardous materials sites and no mitigation measures would be required.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact (e and f). The UCI campus is approximately three miles from John Wayne Airport, which is the only public use airport in Orange County. The project site is outside of the airport land use plan area. There are no private airstrips within the vicinity of the project site. Therefore, implementation of the proposed project would not expose people or structures to air traffic hazards and no mitigation measures would be required.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan. All construction-related activities would be contained within and immediately around the building footprint area. Road closures would be minimal during construction and would be limited to days of concrete pours and delivery of materials. The standard contractor specifications imposed by UCI include a requirement to ensure that roadways surrounding the project site remain accessible to emergency vehicles and crews, and open for emergency evacuations, if necessary.

UCI has an Emergency Management Plan that addresses the campus community's planned response for various levels of emergencies, including fires, hazardous spills, earthquakes, flooding, and

explosions. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and no mitigation measures would be required.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. There are no wildland areas in or near this highly urbanized part of the campus. Therefore, the proposed project would not expose people or structures to potential fire hazards associated with wildland and urban interfaces and no mitigation measures would be required.

5.8 HYDROLOGY AND WATER QUALITY

Would the project:

a. Violate any water quality standards or waste discharge requirements?

Short-Term (Construction) Impacts

No Impact. There is the potential for short-term surface water quality impacts to occur during the grading and construction phases, including runoff of loose soils and/or a variety of construction wastes and fuels that could be carried off-site in surface runoff and into local storm drains and streets that drain eventually into water resources protected under federal and state laws. These water quality impacts would be avoided through compliance with the NPDES regulations set forth under Section 402 of the federal Clean Water Act. Pursuant to the NPDES regulations, the contractor will need to file a Notice of Intent for a General Construction Permit with the RWQCB. To obtain this permit, the contractor would prepare a SWPPP that specifies BMPs to ensure that the proposed project does not violate any water quality standards or any waste discharge requirements during the construction phases. BMPs would include erosion and sediment controls such as silt fences and/or straw wattles or bails, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, prevention and containment of accidental fuel spills or other waste releases, inspection requirements, etc. This permit would cover the entire grading footprint area of the proposed site, along with the adjacent staging area. Compliance with the approved permit would ensure that the proposed project does not violate any water quality standards or any waste discharge requirements during the construction phases. Therefore, implementation of the proposed project would not violate any water quality standards or waste discharge requirements and no mitigation measures would be required.

Long-Term Impacts

No Impact. Waste Discharge Requirements are issued by the RWQCB under the provisions of Division 7, Article 4 of the California Water Code. These requirements regulate "point source" discharges of wastes to surface and groundwaters, such as septic systems, sanitary landfills, dairies, etc. All waste water produced within the proposed project would be discharged into the campus sewer network that serves the UCI campus. Therefore, the proposed project would have no point sources of waste water discharge and thus would have no direct effect upon surface or groundwaters.

As the project site is already covered by impervious surfaces, including concrete and brick, the composition of surface runoff from the developed project site would be similar to existing conditions. Operation of the proposed project would not violate any water quality standards or any waste

discharge requirements. Therefore, no impact would occur and no mitigation measures would be required.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No Impact. All water demand for the proposed project would be met through UCI's existing piped water system. No wells would be drilled or operated. The proposed project would not have the potential to directly change the rate or flow of groundwater because it would not interfere with any known aquifers. Therefore, no impact to groundwater supplies or recharge would be expected to occur and no mitigation would be required.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Less than Significant Impact (c and d). There are no rivers, streams, or drainage channels on or adjacent to the developed project site. Grading and storm drainage for the project site will be kept the same as it currently exists. The proposed project is not anticipated to result in an increase in impervious surfaces. Depending on the finished floor plan of the proposed project, it is likely that the roof drains can be piped to the existing 12-inch ACP storm drain. The existing six-inch sewer line will be rerouted to serve the proposed project. Given the small scale of this project and the developed character of this part of campus, runoff would be minor and would not result in off-site erosion, siltation, or flooding. Therefore, impacts would be considered less than significant and no mitigation measures would be required.

e. Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

No Impact. As mentioned in the preceding response, the project is not anticipated to result in an increase of impervious surfaces. Construction and operation of the proposed project would not alter the amount of impervious surfaces on the project site relative to existing conditions. Runoff from the project site is not expected to increase substantially and it would not exceed the capacity of the existing or planned storm water drainage facilities. Although the proposed project has the potential to result in additional sources of polluted runoff during construction activities, any adverse impacts related to polluted runoff from the project site would be reduced by implementation of BMPs identified in response 5.8, a) above. Therefore, no impact would occur and mitigation measures would be required.

f. Otherwise substantially degrade water quality?

No Impact. The proposed project would not involve any additional water quality impacts beyond those discussed in the preceding responses. Therefore, no degradation of water quality would occur and no mitigation measures would be required.

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. Since the project site is neither located within a flood hazard area or include the development of residential units, it would not increase the exposure of people or structures to flood hazards. No impact would occur and no mitigation measures would be required.

h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As stated in checklist response 5.8, g) above, the project site is not located within a designated flood hazard area. The proposed project would not place structures within a 100-year flood hazard area and therefore would not impede or redirect flood flows. No impact would occur and no mitigation measures would be required.

i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. As stated in checklist response 5.8, g) above, the project site is not located within a designated flood hazard area. There are no levees or dams within the vicinity of the project site and the site does not lie within any potential dam or levee inundation areas. The development of the proposed project would not expose people or property to water-related hazards over current conditions. No impact would occur and no mitigation measures would be required.

j. Inundation by seiche, tsunami, or mudflow?

No Impact. The project site is neither located near a large body of water that would be subject to tsunamis or seiches, canyons, slopes, drainage courses, or other natural features on or near the project site that that would generate mudflows during heavy rainstorms. No impact would occur and no mitigation measures would be required.

5.9 LAND USE AND PLANNING

Would the project:

a. Physically divide an established community?

No Impact. The project site is located within an urbanized part of the campus (Health Sciences Complex) with infrastructure in place. The proposed project would not physically affect the configuration of any surrounding sites or buildings of the campus, beyond the project site. The proposed project will not place any structures in an established community that would physically divide that community and thereby prevent interaction between members of the community. Therefore, no impact would occur and no mitigation measures would be required.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the LRDP, general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed project is located in the Health Sciences Complex of the UCI campus and would be consistent with the current LRDP land use designation (Academic/Support) and is not expected to conflict with the Draft 2007 LRDP Update that is currently underway to address UCI's

development needs through the horizon year 2025-26. Therefore, no conflict would exist with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project site and no mitigation measures would be required.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The proposed project site is located in a highly urbanized area of the campus and is not in or adjacent to any habitat conservation or natural community conservation areas. Therefore, no significant impacts to applicable habitat conservation or natural community conservation plans would occur and no mitigation measures would be required.

5.10 MINERAL RESOURCES

Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact (a and b). According to research conducted for the 1989 and/or 1995 LRDP EIRs, no mineral resources are known to exist on or adjacent to the project site. Therefore, the proposed project would not result in loss of availability of any mineral resource that would be of future value to the region. No impact would occur and no mitigation measures would be required.

5.11 NOISE

Would the project result in:

a. Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?

Construction Phase

Less Than Significant Impact. The construction of the proposed project would require various types of construction equipment, such as a wheel loader, a backhoe/loader, a water truck, a cycle of dump trucks (export soil), and other standard construction equipment needed during the interior phase of construction which have the potential to create temporary significant noise impacts. Temporary noise impacts would occur during the approximately two-year construction period (late 2007 to late 2009).

- Mobilization and Site Grubbing, one month;
- Rough Site Grading/Soil Export, one month;
- Pile Drilling and Placement, two months;
- Foundation Forming and Placement, two months;

- Structural Frame, eight months;
- Exterior Skin, three months;
- Interior Build-Out, six months;
- Site Improvements/Landscaping, two months.

Noise levels during construction would vary with the type of equipment and machinery in use. Construction generated noise levels for the phases noted above would be higher than the existing ambient noise environment and will be restricted to occur mainly during weekdays, in daylight hours. It may be necessary to work on one or more weekends to maintain the project construction schedule. If that occurs, noise impacts would be less than significant, since there are no sensitive receptors such as housing units and there would be less people present than on weekdays. Construction noise increase would be most audible to people in the immediate vicinity, including construction crews, pedestrians, bicyclists, and students in adjacent buildings. The construction crews routinely work in a noisy environment and are not considered sensitive receptors. The experience of construction noise by passing pedestrians and bicyclists would be momentary and thus less than significant. UCI administrative offices responsible for operations will work collaboratively to coordinate scheduling to avoid conflicts between testing schedules and heavy construction periods. Students that are in adjacent buildings constructed with concrete walls and sealed windows are not expected to be exposed to significant construction noises. Therefore, exposure of persons to or generation of noise levels in excess of standards would be less than significant and no mitigation measures would be required.

Operational Phase

The noise level generated by the normal operation of the proposed project is not expected to result in a significant increase in the ambient noise level. Deliveries to and/or pickups from this facility and maintenance of this facility may result in increased noise during operation but would not be considered significant. Noise generated by rooftop mechanical equipment (air conditioning/heating) would not be audible beyond the project site, with typical sound attenuation features to be included in the project design. Due to the small volume of traffic associated with the operation of the proposed project, project-related traffic noise is not expected to result in any substantial permanent increase in ambient noise levels in the project vicinity. Therefore, exposure of persons to or generation of noise levels in excess of standards would be less than significant and no mitigation measures would be required.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant With Mitigation Incorporated. The proposed project will not require the need to perform pile driving but it will require the need to drill for the piles in order to reach suitable materials for foundation support. The pile holes will be drilled by a track-mounted drill rig and a steel reinforced pile cage will be lowered into the hole and then filled with concrete. However, implementation of the proposed project will require the removal of the concrete/brick plaza which will require the use of jackhammers resulting in groundborne vibration. This phase of construction would generate intermittent groundborne vibration and increase ambient noise levels in the project vicinity. The vibration sensitive equipment in Irvine Hall could be effected intermittently during the early phases of construction. Any adverse impacts related to excessive groundborne vibration or

groundborne noise levels would be reduced to less than significant with the incorporation of the following mitigation measure.

N-1 Demolition of the existing concrete/brick plaza will be scheduled to occur during off hours or on the weekends.

N-2 The UCI Project Manager shall notify Irvine Hall occupants of construction commencement ten working days prior to such activities taking place. Construction schedule updates will be provided to Irvine Hall occupants on a monthly basis.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The primary source of noise that would be generated by the project is related to vehicle trips to and from the site. Due to the small volume of traffic associated with the operation of the project, related traffic noise is not expected to result in substantial permanent increase in ambient noise levels in the project vicinity. Deliveries to and/or pickups from this facility and maintenance of this facility may result in a minimal increase in daily ambient noise levels but would be considered less than significant. Noise generated by rooftop mechanical equipment (air conditioning/heating) would not be audible beyond the project site, with typical sound attenuation features to be included in the project design. The present noise environment in the project vicinity is typical of conditions throughout the UCI campus. Therefore, implementation of the proposed project would not result in a substantial permanent increase of ambient noise levels. Impacts are considered less than significant and no mitigation measures would be required.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Please refer to response 5.11, a) above.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within an airport land use plan. The project site is also not within two miles of a public airport or public use airport. Therefore, the project would not expose people residing or working in the project area to excessive noise levels and no mitigation measures would be required.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located in the vicinity of any private airstrips. Therefore, the project would not expose people residing or working in the project area to excessive noise levels and no mitigation would be required.

5.12 POPULATION AND HOUSING

Would the project:

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The proposed project is intended to accommodate the SOM's new educational, research, and clinical activities in telemedicine and PRIME-LC. The proposed project will address these needs by providing interactive televideo and telemedicine "virtual care" consultation, instructional, and research space, and academic and administrative offices to support these programs. The additional students, faculty, and staff to be accommodated by the proposed project would be within the totals foreseen by the 1989 LRDP. The increased area would house instructional space (classrooms and clinical laboratories), research space (dry laboratories and research offices), office and support spaces (mail/copy rooms, file rooms, and workrooms), and surge space. The project does not propose the development of new homes or businesses and would not extend or increase infrastructure (road extensions). New faculty/staff and students that would occupy the proposed project may include a number of persons who do not currently reside on or near the campus or in Orange County, and who may, therefore, relocate to more convenient housing on- or off-campus. This would result in a less than significant impact on the housing stock of Orange County and the surrounding region, and is not expected to require the construction of any new housing developments or infrastructure that are not already planned as part of the region's anticipated growth. Therefore, the proposed project would not induce substantial population growth in the surrounding area. Impacts are considered less than significant and no mitigation would be required.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact (b and c). The project site is a relatively flat concrete/brick area (hardscape) with a landscaped perimeter and no existing. Therefore, implementation of the proposed project would not displace existing housing units or households. No impact would occur and no mitigation measures would be required.

5.13 PUBLIC SERVICES

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services?

Fire protection?

Less Than Significant Impact. As part of the proposed project, a new waterline serving both domestic and fire service would be connected to the existing 10-inch water main that serves Irvine Hall. Two existing fire hydrants occur on the project site and an evaluation would be condutect during project design to determine if additional fire hydrants are required. Any additional hydrants

required will be installed as a part of the project. Therefore, implementation of the proposed project would create less than significant impacts on fire protection and no mitigation measures would be required.

Police protection?

Less Than Significant Impact. UCI campus police provide primary police protection on the UCI campus. The proposed project would not represent a unique land use within the UCI campus that would attract or stimulate criminal activities and would not require new police protection services or facilities. It would not significantly affect the level of police protection service provided to the campus. Therefore, impacts related to police protection would be less than significant and no mitigation measures would be required.

Schools?

No Impact. The proposed project would not generate a significant increase in the school population since no residential land uses are proposed. The project will not result in the need to alter the existing or construct new schools of which could result in significant impacts on the physical environment. The proposed project would accommodate the needs of UCI's SOM through additional education, research, clinical, and surge space. The proposed project would benefit and support students and faculty by creating additional capacity within the Health Sciences Complex and for UCI's SOM. Therefore, the proposed project would have no impacts on schools and no mitigation measures would be required.

Parks?

No Impact. The project site is a relatively flat concrete/brick area (hardscape) with a landscaped perimeter and no existing structures. This site does not support any parks or recreation activities and is not planned for such uses in the LRDP. The proposed project consists of construction of a new facility that would support new initiatives and technologies in teaching and health care delivery in UCI's SOM and does not include any residential units. Therefore, population growth is not expected to be significant because of the project, and demand for additional public park facilities is not expected to rise. No impact would occur and no mitigation measures would be required.

Other public facilities?

No Impact. The proposed project is not expected to adversely affect any other public facilities located on- or off-campus. Therefore, no impact to public facilities would occur and no mitigation measures would be required.

5.14 RECREATION

Would the project:

a. 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?

No Impact. The proposed project would provide more building space to support new initiatives and technologies in teaching health care delivery in UCI's SOM. No parks or recreational facilities occur within or adjacent to the project site. The recreational needs of the building's occupants are met

elsewhere on campus by existing facilities. Therefore, no impact to parks or other recreation facilities would result from the proposed project and no mitigation would be required.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. Implementation of the proposed project does not include outdoor parks or recreational facilities. Currently, the UCI campus provides recreational areas and facilities in various parts of the campus which is based on the campus-wide needs and LRDP policies. Therefore, the proposed project does not include the development of recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impact would occur and no mitigation measures would be required.

5.15 TRANSPORTATION/TRAFFIC

Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Less Than Significant Impact. According to the Traffic Impact Study prepared by P&D Consultants (Appendix C), the proposed project will generate approximately 740 daily trips, with 65 trips occurring during both the A.M. and P.M. peak hours. It should be noted that even though the proposed project would only generate 60 additional students, 13 faculty, and approximately 80 staff members, the 740 daily trips were based on the building square footage, which would represent a worse course case scenario. Table T-1 shows the trip generation rates for a University/College land use based on the number of students (311 worse case scenario). It should be noted that this trip generation rate based on the number of students encompasses all trip purposes made at the University/College land use by students, support staff (faculty members and administrative employees), and visitors.

TABLE T-1
PROJECT TRIP GENERATION

Land Use	ITE Code	Size	Trip Generation								
			Daily			A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
University/ College	550	311 STU[1]	370	370	740	53	12	65	19	46	65

Source: P&D Consultants (2007).
[1] STU: students.

As shown in Table T-2, all study road segments will operate at acceptable Level of Service (LOS) C or better in 2009 without the proposed project. California Avenue between University Drive and Bison Avenue will have the worst volume-to-capacity (V/C) ratio of 0.800 and will operate at LOS C.

TABLE T-2
ROAD SEGMENT DAILY LEVELS OF SERVICE – 2009 WITHOUT THE PROJECT[1]

Road Segment	Section Limits	Street Classification	Lane Configuration	Daily Volume	Capacity	V/C	LOS
California Avenue	University Drive to Bison Avenue	Commuter	2 Undivided	10,400	13,000	0.800	C
Bison Avenue	MacArthur Boulevard to SR 73 southbound ramps	Major Arterial	6 Divided	15,477	54,000	0.287	A
	SR 73 northbound ramps to California Avenue	Primary Arterial	4 Divided	24,098	32,000	0.753	C
	California Avenue to Health Sciences Road	Primary Arterial	4 Divided	17,089	32,000	0.534	A
	Health Sciences Road to Peltason Drive	Primary Arterial	4 Divided	16,937	32,000	0.529	A

Source: P&D Consultants (2007).
[1] 2009 without the Project, includes existing traffic and ambient growth (concurrent growth), but without the proposed project traffic.

As shown in Table T-3, all study road segments will operate at acceptable LOS D or better in 2009 with the proposed project. California Avenue between University Drive and Bison Avenue will have the worst V/C ratio of 0.805 and will operate at LOS D.

TABLE T-3
ROAD SEGMENT DAILY LEVELS OF SERVICE – 2009 WITH THE PROJECT[1]

Road Segment	Section Limits	Street Classification	Lane Configuration	Daily Volume	Capacity	V/C	LOS
California Avenue	University Drive to Bison Avenue	Commuter	2 Undivided	10,468	13,000	0.805	D
Bison Avenue	MacArthur Boulevard to SR 73 southbound ramps	Major Arterial	6 Divided	15,545	54,000	0.288	A
	SR 73 northbound ramps to California Avenue	Primary Arterial	4 Divided	24,285	32,000	0.759	C
	California Avenue to Health Sciences Road	Primary Arterial	4 Divided	17,344	32,000	0.542	A
	Health Sciences Road to Peltason Drive	Primary Arterial	4 Divided	17,022	32,000	0.532	A

Source: P&D Consultants (2007).
[1] 2009 with the Project includes existing traffic, ambient growth (concurrent growth), and the proposed project traffic.

All road segments will operate at an acceptable LOC with the proposed project and will not require an additional peak hour V/C analysis. Therefore, implementation of the proposed project will not impact the road segments.

According to the traffic impact study, all study intersections will operate at acceptable LOS D or better except for the intersection of California Avenue at University Drive during the A.M. peak hour and the intersection of California Avenue at Bison Avenue during the P.M. peak hour. California Avenue at University Drive has an Intersection Capacity Utilization (ICU) of 0.940 and will operate at LOS E during the A.M. peak hour in 2009 without the proposed project. California Avenue at Bison Avenue has an ICU of 0.927 and will operate at LOS E during the P.M. peak hour in 2009 without the proposed project. Table T-4 summarizes the intersection LOS.

TABLE T-4
INTERSECTION LEVELS OF SERVICE – 2009 WITHOUT THE PROJECT[1]

Index	Intersection	A.M. Peak Hour		P.M. Peak Hour	
		ICU	LOS	ICU	LOS
1	California Avenue at University Drive	**0.940**	**E**	0.861	D
2	MacArthur Boulevard at Bison Avenue	0.793	C	0.770	C
3	SR 73 southbound ramps at Bison Avenue	0.527	A	0.402	A
4	SR 73 northbound ramps at Bison Avenue	0.615	B	0.643	B
5	California Avenue at Bison Avenue	0.692	B	**0.927**	**E**
6	Health Sciences Road at Bison Avenue	0.326	A	0.364	A
7	Peltason Drive at Bison Avenue/Physical Sciences Road	0.584	A	0.647	B

Source: P&D Consultants (2007). **Bolded** items indicate which intersections will operate at below-standard LOS.
[1] 2009 without the Project, includes existing traffic and ambient growth, but without the proposed project traffic.

As shown in Table T-5, all study intersections will operate at acceptable LOS D or better except for the intersection of California Avenue at University Drive during the A.M. peak hour and the intersection of California Avenue at Bison Avenue during the P.M. peak hour. California Avenue at University Drive has an ICU of 0.946 and will operate at LOS E during the A.M. peak hour in 2009 with the proposed project. California Avenue at Bison Avenue has an ICU of 0.937 and will operate at LOS E during the P.M. peak hour in 2009 with the proposed project.

TABLE T-5
INTERSECTION LEVELS OF SERVICE – 2009 WITH THE PROJECT[1]

Index	Intersection	A.M. Peak Hour		P.M. Peak Hour	
		ICU	LOS	ICU	LOS
1	California Avenue at University Drive	**0.946**	**E**	0.867	D
2	MacArthur Boulevard at Bison Avenue	0.795	C	0.772	C
3	SR 73 southbound ramps at Bison Avenue	0.535	A	0.405	A
4	SR 73 northbound ramps at Bison Avenue	0.623	B	0.651	B
5	California Avenue at Bison Avenue	0.701	C	**0.937**	**E**
6	Health Sciences Road at Bison Avenue	0.327	A	0.380	A
7	Peltason Drive at Bison Avenue/Physical Sciences Road	0.591	A	0.651	B

Source: P&D Consultants (2007). **Bolded** items indicate which intersections will operate at below-standard LOS.
[1] 2009 with the Project, includes existing traffic, ambient growth, and the proposed project traffic.

All intersections will operate at an acceptable LOS with the proposed project, except for the intersection of California Avenue at University Drive during the A.M. peak hour and the intersection of California Avenue at Bison Avenue during the P.M. peak hour. However, the increase in ICU is less than 0.02 when rounded to the nearest hundredth for these two intersections; therefore, these two intersections are considered to have acceptable LOS and will not be significantly impacted.

It should be noted that the widening of California Avenue to four lanes and related intersection improvements is proposed to be constructed in late 2007 pending final City of Irvine plan reviews and approvals. Completion of these improvements would improve the 2009 LOS at the California Avenue intersections.

No mitigation measures are required because no study road segment or intersection will be impacted by implementation of the proposed project.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

No Impact. As discussed in the immediately preceding response, the proposed project would result in an increase in daily trips that would have a less than significant impact on the LOS of study road segments and intersections. According to the traffic impact study, a Congestion Management Program (CMP) traffic analysis was not conducted because the proposed project is exempt. A CMP traffic analysis is required when a proposed project generates more than 2,400 daily trips, or more than 1,600 daily trips with direct access to a CMP highway. The CMP highways in the vicinity of the project site are State Route 73, Jamboree Road, and MacArthur Boulevard. Therefore, the proposed project does not directly access a CMP highway. Given the less than significant volume of traffic that would be generated (740 daily trips), the proposed project traffic would not exceed any LOS standards established for the CMP. No impact would occur and no mitigation measures would be required.

c) Results in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. No airports are located in the project vicinity. Due to the nature and size of the proposed project, it would not have the potential to affect air traffic. No impact would occur and no mitigation measures would be required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project does not require alterations to existing streets or highways and would not introduce hazardous design features such as sharp curves or dangerous intersections or provide incompatible uses. Access to the project site will be from an existing service drive which is located between Irvine Hall and Sprague Hall. Implementation of the proposed project would not result in safety hazards from design features or incompatible uses. No impact would occur and no mitigation measures would be required.

e) Result in inadequate emergency access?

No Impact. Construction of the proposed project would require limited road closures during days of concrete pours and delivery of materials. It should be noted that the standard contractor specifications imposed by UCI include a requirement to ensure that roadways surrounding the project site remain accessible to emergency vehicles and crews and open for emergency evacuations. As previously noted, the proposed project does not include any new or alterations to existing vehicular access or driveways. Once the project is completed, the ability of fire or emergency vehicles to respond to the project site will remain the same as it currently exists. No impact would occur and no mitigation measures would be required.

f) Result in inadequate parking capacity?

No Impact. Although not intended as a parking facility, stalls have never been designated, at times portions of the existing plaza are used as such by the SOM and/or UCI Facilities Management. Once construction of the proposed project begins, parking at the project site will no longer be available and faculty and staff will need to park at an alternative site. According to UCI's Parking and Transportation Services, an adequate number of spaces are available in the Health Sciences Complex parking lots to accommodate these faculty and staff as well as the additional students, faculty, and

staff associated with proposed project. Therefore, there will be adequate parking spaces to accommodate the proposed project. No impact would occur and no mitigation measures would be required.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. No changes to the existing alternative transportation systems are planned as a part of the proposed project. The proposed project would not result in the elimination of existing bus or bicycle facilities. The project site is accessible to bike and foot traffic via a system of sidewalks, pathways, and Bison Avenue in the project vicinity. These facilities would provide access to and from the project site. Therefore, the proposed project would not result in any conflicts with policies, plans, or programs that support alternative transportation and no mitigation measures would be required.

5.16 UTILITIES AND SERVICE SYSTEMS

Would the project:

a. Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The existing six-inch sewer line that runs through the Irvine Hall plaza and to a manhole at the edge of the lawn area will need to be rerouted to provide service to the proposed project. The waste water would consist primarily of sanitary sewage from the proposed project and is not expected to exceed waste water treatment requirements pursuant to the RWQCB, as overseen by the Orange County Sanitation District. Therefore, this impact is considered less than significant and no mitigation measures would be required.

b. Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. The proposed project is consistent with the planned land uses and intensities set forth in the LRDP. Therefore, the water demand and waste water generation would be within existing planning projections for both water and waste water treatment. No new or modified mainline water or waste water facilities would be required for the proposed project. A new waterline serving both domestic and fire service for the proposed project would be connected to the existing 10-inch water main that loops around the Irvine Hall building. Construction of the local connections would result in less than significant environmental impacts and no mitigation measures would be required.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. Grading and storm drainage improvements to serve the project will result in only minor changes to existing conditions. The proposed project is not anticipated to result in a significant increase in impervious surfaces. Depending on the finished floor plan of the proposed project, it is likely that the roof drains can be piped to the existing 12-inch ACP storm drain. In addition, the existing six-inch sewer line that runs through the Irvine Hall plaza and to a manhole at the edge of the lawn area will need to be rerouted to provide service to the proposed project. Therefore, the proposed project would not require or result in construction of new storm water drainage facilities or the expansion of existing facilities, which could cause significant environmental

effects. Impacts would be considered less than significant and no mitigation measures would be required.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. Construction activity would not be expected to require a significant amount of water for dust control activities, and this demand would not be expected to have a significant impact on the local or regional water supplies. As previously noted, the proposed project is consistent with the LRDP and would not exceed the development intensity levels established for the Health Sciences Complex. Development of this project and the water demand associated with the completed facilities would be consistent with projected demands based on LRDP buildout. The proposed project would have a minimal effect on Irvine Ranch Water District (IRWD) water supply resources, and would not require any new or expanded water supply entitlements. Sufficient water supplies would be available to serve the project from existing entitlements and resources. Therefore, impacts are considered less than significant and no mitigation measures would be required.

e. Result in a determination by the waste water treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. Since the proposed land uses and intensities are consistent with the current LRDP Land Use Element, the increased waste water generation resulting from the proposed project would be consistent with projected demands based on LRDP buildout. It should be noted that the IRWD plans to expand the capacity of the Michelson Water Reclamation Plant from 18 million gallons per day (mgd) to 33 mgd by the year 2025. The proposed project's increased waste water generation would be consistent with previous forecasts for this part of the campus, based on the LRDP. Development of the proposed project would have a minimal impact on the capacity of IRWD's waste water treatment facilities and would not result in the need for any new or expanded facilities. Therefore, impacts are considered less than significant and no mitigation measures would be required.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. With the exception of construction debris, the proposed project would not result in generation of significant amounts of solid waste. Construction activities would consist of grading, foundation construction, utility connections, and building construction. The total construction period is expected to last approximately two years. Relatively minimal construction debris would be generated and to the extent feasible construction waste would be reduced, reused, and/or recycled. The amount of debris generated would not be expected to significantly impact landfill capacities. Operation of the proposed project would generate the same types of solid wastes as those generated by the other campus facilities. In addition, the proposed project would comply with UCI's solid waste management program and recycle daily waste to the extent feasible. The proposed project would not result in the need for new solid waste facilities in the County of Orange. Therefore, impacts are considered less than significant and no mitigation measures would be required.

g. Comply with applicable federal, state, and local statues and regulations related to solid waste?

No Impact. In accordance with UCI's standard construction practices, all contractors must properly dispose of construction wastes in accordance with applicable statutes and regulations. Operation of the proposed project would generate the same types of solid wastes as those generated by the other campus facilities. The proposed project would not require any revisions to the UCI solid waste management program and would not result in any violations of or conflicts with state, federal, or local laws governing solid waste disposal and no mitigation measures would be required.

5.17 MANDATORY FINDINGS OF SIGNIFICANCE

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant With Mitigation Incorporated. The project site is within an urbanized area of campus and has been previously disturbed. The site consists of a concrete/brick (hardscape) plaza with ornamental trees on the perimeter, and has no existing structures. The project site contains minimal habitat value and does not support sensitive wildlife or plant species. No candidate, sensitive or special status species occupy the project site and it is not part of any wildlife movement corridor. Therefore, development of the proposed project would not degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal.

As discussed in Section 5.5, Cultural Resources, implementation of the proposed project has the potential to significantly impact cultural resources during site grading/excavation. However, with implementation of the mitigation measure previously mentioned (CR-1), significant impacts to cultural resources would be avoided.

As discussed in Section 5.11, Noise, implementation of the proposed project has the potential to result in significant impacts related to intermittent groundborne vibration and increase in ambient noise levels in the project vicinity. However, with implementation of the mitigation measures previously mentioned (N-1 & N-2), significant impacts related to intermittent groundborne vibration and increase in ambient noise levels would be avoided.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant With Mitigation Incorporated. As shown on Table M-1, below, there are five projects under construction across the UCI campus and two that have been approved and are planned for development in the near future. None of these projects are scheduled to occur on or adjacent the project site during its construction. All of the projects currently under construction or approved for construction have been reviewed for environmental impacts in accordance with the University of California guidelines and rules for Implementation of CEQA. Mitigation measures are being or will be implemented, where required, to avoid or reduce the severity of potential impacts from each project. As previously discussed, the 2007 LRDP update is currently underway to address campus development needs through 2025-26. The CEQA analysis for the 2007 LRDP is currently

being prepared and it can be expected that a campus-wide mitigation and monitoring program (MMRP) will be made available at the time that the 2007 LRDP is considered for approval. Campus projects undertaken after approval of the 2007 LRDP and tiered from the 2007 LRDP EIR would utilize the MMRP developed for the 2007 LRDP EIR to reduce potential individual and cumulative environmental impacts.

TABLE M-1
UCI PROJECTS UNDER CONSTRUCTION OR APPROVED/PLANNED FOR NEAR FUTURE

Projects Under Construction		
Project Name	**Gross Square Feet**	**Estimated Completion Date**
Engineering Unit 3	122,500 GSF	July 2009
Biological Sciences Unit 3	147,000 GSF	February 2008
Anteater Recreation Center Step 3	26,650 GSF	September 2008
Rowland Hall Seismic	252,000 GSF	January 2008
Projects Approved/Planned for Near Future		
Humanities	83,883 GSF	June 2009
Social and Behavior Sciences Building	130,000 GSF	August 2009
California Avenue Widening	NA	Summer 2007

Source: UCI, 2007.

Construction

All campus construction projects, including the proposed project, must implement air quality measures to control fugitive dust as required by the SCAQMD. In addition, the proposed project will also be required to implement project-specific controls (Mitigation Measure AQ-1 through AQ-7) to ensure that emissions of reactive organic compounds during the application of architectural coatings and other building sealants do not exceed SCAQMD daily thresholds. Since no other construction projects are currently scheduled in the vicinity of the proposed project, during the same time period, project-related impacts to cultural resources and noise are also not considered cumulative. Given the broad distribution of other ongoing projects and the continued implementation of mitigation measures to minimize impacts to air quality, cultural resources, and noise, no significant cumulative construction impacts would occur as a result of the proposed project.

Operation

The proposed project is consistent with the building space forecasts in the current LRDP and no significant environmental impacts have been identified in this IS/MND. Primary long-term effects resulting from the additional building intensity and increased capacity to accommodate new students, faculty and support staff would include: more building massing within the Health Sciences Complex; consistent in scale and massing with other buildings in the vicinity; increased demand on the campus utility systems without a need to expand the mainline infrastructure facilities; and an increase in the daily and peak period traffic trips. Therefore, the proposed project would not result in cumulatively considerable aesthetic impacts and would not contribute to cumulative impacts involving expansions to utility facilities.

As discussed in the Traffic Impact Study (Appendix C), the proposed project's impacts were evaluated in the context of cumulative growth (ambient growth rate of three percent per year) in volumes through the year 2009. According to Traffic Impact Study and summarized in Section 5.15, the project's traffic impacts would be less than cumulatively considerable and would not require any mitigation measures to achieve acceptable LOS on the studied intersections and road segments. As noted in the response 5.3, b, the project's air emissions during operation would be well below the SCAQMD thresholds, which were established to assess the significance of both project level and cumulative impacts.

The proposed project would not result in significant impacts that cannot be mitigated to a level that is less than significant. The analysis in this IS/MND has determined that the proposed project would not have any individually limited or cumulatively considerable impacts.

c. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. Construction and operation of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. The impacts that the project could have on human beings have been reduced to below a level of significance by mitigation measures included in the proposed project. In addition, the proposed project will result in a beneficial impact on the SOM by providing additional needed space for interactive televideo and telemedicine "virtual care" consultation space, instructional and research space, and academic and administrative offices.

5.18 CALIFORNIA DEPARTMENT OF FISH AND GAME DETERMINATION

Based on the information above, there is no evidence that the proposed project has a potential for a change that would adversely affect wildlife resources or the habitat on which the wildlife depends. The presumption of adverse affect set forth in 14 CCR 153.5(d) has been rebuffed by substantial evidence.

X Yes (Certificate of Fee Exemption)

__ No (pay fee)

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APPENDICES

APPENDIX A
AIR QUALITY CALCULATIONS

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\UCI Telemedicine Facility.urb
Project Name: UCI Telemedicine Facility
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	51.68	39.98	48.40	0.00	6.60	1.59	5.01

*** 2008 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	0.05	0.03	0.61	0.00	0.01	0.00	0.01

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.52	0.28	0.89	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	8.80	5.73	59.62	0.04	6.44

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	9.32	6.01	60.52	0.04	6.44

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\UCI Telemedicine Facility.urb
Project Name: UCI Telemedicine Facility
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: November, 2007
Construction Duration: 24
Total Land Use Area to be Developed: 0.5 acres
Maximum Acreage Disturbed Per Day: 0.5 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 28612

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.52	-	0.52
Off-Road Diesel	2.72	20.78	20.15	-	0.93	0.93	0.00
On-Road Diesel	0.08	1.82	0.31	0.00	0.04	0.03	0.01
Worker Trips	0.02	0.06	0.55	0.00	0.00	0.00	0.00
Maximum lbs/day	2.82	22.66	21.01	0.00	1.49	0.96	0.53
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	5.00	-	5.00
Off-Road Diesel	5.84	39.62	46.63	-	1.59	1.59	0.00
On-Road Diesel	0.01	0.20	0.03	0.00	0.00	0.00	0.00
Worker Trips	0.08	0.16	1.74	0.00	0.01	0.00	0.01
Maximum lbs/day	5.93	39.98	48.40	0.00	6.60	1.59	5.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.05	0.03	0.66	0.00	0.01	0.00	0.01
Arch Coatings Off-Gas	48.12	-	-	-	-	-	-
Arch Coatings Worker Trips	0.10	0.26	2.52	0.00	0.02	0.01	0.01
Asphalt Off-Gas	0.06	-	-	-	-	-	-
Asphalt Off-Road Diesel	3.34	21.74	27.25	-	0.82	0.82	0.00
Asphalt On-Road Diesel	0.01	0.24	0.05	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.04	0.11	1.10	0.00	0.00	0.00	0.00
Maximum lbs/day	51.68	22.35	30.92	0.00	0.86	0.84	0.02
Max lbs/day all phases	51.68	39.98	48.40	0.00	6.60	1.59	5.01
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.05	0.03	0.61	0.00	0.01	0.00	0.01
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.05	0.03	0.61	0.00	0.01	0.00	0.01
Max lbs/day all phases	0.05	0.03	0.61	0.00	0.01	0.00	0.01

Phase 1 - Demolition Assumptions
Start Month/Year for Phase 1: Nov '07
Phase 1 Duration: 0.6 months
Building Volume Total (cubic feet): 15625
Building Volume Daily (cubic feet): 1250
On-Road Truck Travel (VMT): 69
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Nov '07
Phase 2 Duration: 1.2 months
On-Road Truck Travel (VMT): 8
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Dec '07
Phase 3 Duration: 10.2 months
Start Month/Year for SubPhase Building: Dec '07
SubPhase Building Duration: 10.2 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day

Start Month/Year for SubPhase Architectural Coatings: Sep '07
SubPhase Architectural Coatings Duration: 1 months
Start Month/Year for SubPhase Asphalt: Sep '07
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 0.25
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Paving Equipment	111	0.530	8.0
1	Rollers	114	0.430	8.0

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.02	0.28	0.23	0	0.00
Hearth - No summer emissions					
Landscaping	0.10	0.00	0.66	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.40	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.52	0.28	0.89	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
University/college (4 yrs	8.80	5.73	59.62	0.04	6.44
TOTAL EMISSIONS (lbs/day)	8.80	5.73	59.62	0.04	6.44

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
University/college (4 yrs		2.38 trips/students	311.00	740.18
		Sum of Total Trips		740.18
		Total Vehicle Miles Traveled		4,248.63

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
University/college (4 yrs)				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape year changed from 2005 to 2009.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2009.

APPENDIX B
GEOTECHNICAL DATA REPORT

GEOTECHNICAL DATA REPORT
PROPOSED TELEMEDICINE BUILDING
UNIVERSITY OF CALIFORNIA, IRVINE
IRVINE, CALIFORNIA

Project No. 82780

Prepared for:

University of California, Irvine
Design and Construction Services
5201 California Avenue, Suite 250
Irvine, California 92697

Prepared by:

KLEINFELDER
8 Pasteur, Ste 190
Irvine, California 92618

April 30, 2007

KLEINFELDER
An employee owned company

April 30, 2007
Project No. 82780

University of California, Irvine
Design and Construction Services
5201 California Avenue, Suite 250
Irvine, California 92697

Attention: Mr. Steven S. Muellers

Subject: Geotechnical Data Report
Proposed Telemedicine Building
Bison and Health Sciences Road
University of California, Irvine
Irvine, California

Dear Mr. Muellers:

Kleinfelder is pleased to present this geotechnical data report for the proposed Telemedicine Building located at the University of California, Irvine (UCI) campus in Irvine, California. The purpose of the geotechnical data report is to characterize the soil and bedrock conditions at the site. We understand that this data report will be provided to the design-build teams bidding on the project so that they may develop a design-level geotechnical report that is specific to their building design concept.

This report has been prepared in substantial conformance with our proposal dated April 9, 2007 (Proposal No. IRV7P047). This report was prepared exclusively for UCI for specific application to the subject project according to generally accepted geotechnical engineering practices. We make no other warranty, either express or implied.

We appreciate the opportunity to provide geotechnical engineering services to you on this project. If you have any questions regarding this report, or if we can be of further service, please do not hesitate to contact the undersigned.

Respectfully submitted,

KLEINFELDER WEST, INC.

REGISTERED PROFESSIONAL ENGINEER
JACQUES B. ROY
NO. C035386
Ex. Date 9/30/07
CIVIL ENGINEERING
STATE OF CALIFORNIA

Jacques B. Roy, P.E., G.E.
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APPENDICES

1.0 INTRODUCTION

This geotechnical data report presents the results of our field explorations and laboratory testing for the proposed Telemedicine Building at the UCI campus. The site is located in the upper courtyard area of the existing Building 835 within the northwestern portion of the UCI Campus, north of Bison Avenue and east of California Avenue. The location of the site is shown on the Site Access Map on the following page.

The purpose of the geotechnical data report is to characterize the soil and bedrock conditions at the site. We understand that the data report will be provided to the design-build teams bidding on the project so that they may develop a design-level geotechnical report that is specific to their building design concept.

1.1 PROJECT DESCRIPTION

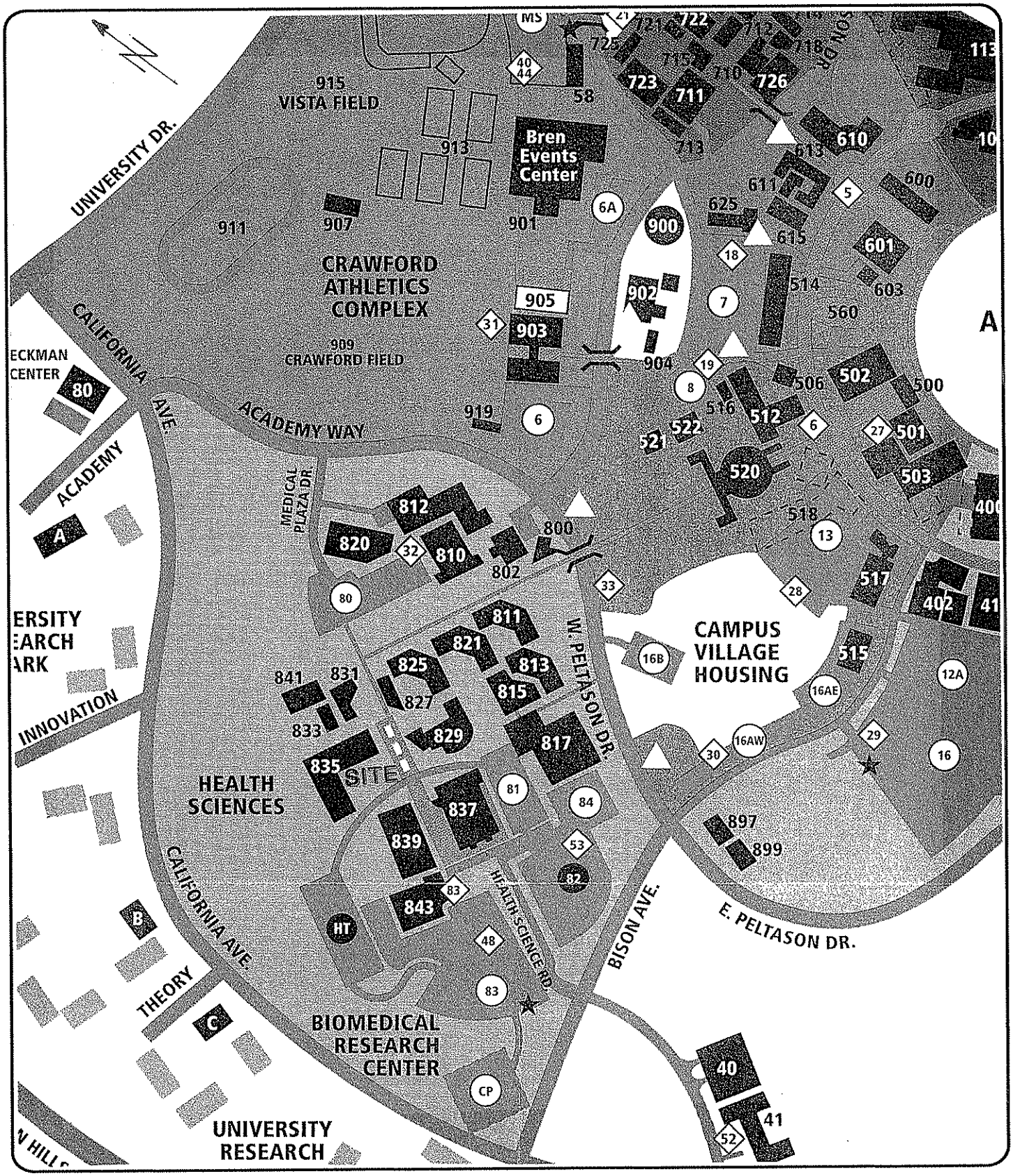
Kleinfelder understands that UCI plans to construct a 3-story building that will house classrooms, laboratories, and offices. We understand that the footprint of the building will measure about 140 by 140 feet in plan (approximately 20,000 square feet). No basement level is planned at this time.

1.2 SCOPE OF SERVICES

The scope of our services consisted of subsurface explorations, geotechnical laboratory testing, and preparation of this report. A more detailed description of our scope of services performed for this project follows.

Our report includes a description of the work performed, a discussion of the geotechnical conditions observed at the site, and the results of our subsurface explorations and laboratory testing. The conclusions contained within this report are subject to the limitations presented in Section 4.

Task 1 – Field Exploration. The subsurface conditions at the site were explored by drilling six borings using limited-access hollow-stem-auger drilling equipment to depths of approximately 41½ to 51½ feet below the existing ground surface (bgs). Three hand-auger borings were also excavated to depths of approximately 2 feet bgs to obtain soil



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Telemedicine Building
University of California, Irvine
Irvine, California
Project No.: 82780 April 2007

SITE ACCESS MAP

PLATE
1

samples for environmental analytical testing. The approximate locations of the borings are presented on the Boring Location Map.

Prior to commencement of the fieldwork, each of our proposed boring locations were cleared for known existing utility lines with participating utility companies through Underground Service Alert (USA) and a geophysical survey. During the field exploration, a Kleinfelder engineer supervised the field operations and logged the borings. Selected bulk and drive samples were retrieved, sealed and transported to our laboratory for further evaluation. The number of blows necessary to drive both Standard Penetration Test (SPT) and modified California-type samplers were recorded. A description of the field exploration and the logs of the borings, including a Legend to the Logs of Borings, are presented in Appendix A.

Task 3 – Laboratory Testing. Laboratory testing was performed on representative bulk and relatively undisturbed samples to substantiate field classifications and to provide engineering parameters for geotechnical design. Laboratory testing consisted of in-situ moisture content and dry unit weight, wash sieve analysis (minus #200 sieve), grain-size distribution, consolidation, direct shear, R-Value, expansion index, Atterberg Limits, maximum density/optimum moisture content, and preliminary corrosion potential tests. A summary of the testing performed and the results are presented in Appendix B. In addition to the geotechnical laboratory testing, three soil samples were obtained for environmental analytical testing. The results of this testing are presented in Appendix C.

Task 4 – Report Preparation. This geotechnical data report summarizes the work performed and data acquired. The following are presented in this report:

- Site Access Map;
- Site Location Map;
- Boring Location Map;
- Logs of borings;
- Results of laboratory tests;
- Discussion of general site conditions;

- Discussion of general subsurface conditions, as encountered in the field explorations;
- Discussion of laboratory test results;
- Findings regarding soil expansion potential;
- Findings regarding groundwater;
- Findings of the environmental testing;
- Findings regarding the corrosion potential of the on-site soils.

2.0 SITE AND SUBSURFACE CONDITIONS

2.1 SITE DESCRIPTION

We understand that the proposed building will be constructed within the upper courtyard area of the Irvine Hall (Building 835). The site presently contains a courtyard/parking lot, and planters and grass areas. The parking lot surface consists of concrete pavers. Based on the geophysical survey performed for utility locations, there is a reinforced concrete slab below the pavers. Boring 4, drilled near the center planter, encountered a 5-inch thick concrete slab underlain by 6 inches of aggregate base below the pavers. The reinforcement observed consisted of #10 welded wire mesh. It should be noted that the reinforcement, concrete thickness and depth of aggregate base may vary.

The center of the site contains a raised planter bordered by 6 feet of concrete enclosing a perimeter storm drain inlet. The planter measures approximately 28 by 28 feet in plan. The paver area is bordered by a 2-foot-wide mow strip followed by a 12-foot-wide strip of grass. Along the outside perimeter of the grass there is another mow strip bordered by a 4-foot-wide raised planter. The planter has been capped with concrete on the north side of the site. Immediately south of the entry stairs from the parking to the Irvine Hall building, there is a rose garden measuring about 10 by 16 feet in plan.

Access to the parking/courtyard area is via a 25-foot wide staircase climbing approximately 10 feet on the east side of the site. The 35-foot-wide driveway on the south side allows entrance and exit of vehicles. The east side and southeast corner of the site overlook a slope that is approximately 8 to 12 feet high and has gradients ranging from about 2:1 to 5:1 (horizontal:vertical).

The site contains underground utilities such as water, sewer, storm drain, and electric lines. We understand that the center of the site was previously used as a fountain and the electric pump may still be in place. We further understand that along the north side of the site, there is a buried facility, the "cyclotron" room that connects to the existing building. The "cyclotron" room may be approximately 24 by 30 feet in plan, based on the geophysical survey performed for underground utility locations.

2.2 GEOLOGIC SETTING

The site is located within the northwestern San Joaquin Hills portion of the Peninsular Ranges geomorphic province of California. The San Joaquin Hills are considered to be the western portion of the Santa Ana Mountain Block of the province. They are bounded on the north by the Tustin Plain, on the east by Oso Creek and on the west and south by the Pacific Ocean.

The Peninsular Ranges are a northwest-southeast oriented complex of mountain ranges and valleys. The mountain ranges are separated by northwest trending strike slip faults. The Peninsular Ranges Geomorphic Province is bound on the north by the eastern Puente Hills and on the west by the Orange County Coastal Plain portion of the Los Angeles Basin. The eastern portion of the Peninsular Ranges Province is bounded by the Elsinore Fault. The Peninsular Ranges continue southward through Imperial County and into Mexico. The site lies between the Elsinore fault zone and the Newport-Inglewood fault zone and is on a tectonically folded block between these two faults.

According to a review of published maps, the site area is underlain by marine terrace deposits. Tertiary age marine sedimentary rocks of the Paularino Member of the Topanga Formation underlay the terrace deposits.

2.3 FAULTING AND SEISMICITY

Our review of geologic maps, including CDMG (2001), indicates that active or potentially active faults are not currently mapped on or projected toward the site. Under the current understanding of regional seismo-tectonics, the largest maximum magnitude event to significantly impact the site may be generated by the Newport-Inglewood fault, having a moment magnitudes of M7.1. The Newport-Inglewood fault is a Type B Fault located about 8 km from the site. Also, recent research indicates that "blind thrust faults" (faults that have not broken the ground surface and display little direct evidence of surface expression) may underlie this part of Orange County and adjacent areas. The closest postulated blind thrust fault to the sight is the San Joaquin Hills fault, which is postulated to be responsible for the Quaternary uplift of the San Joaquin Hills. The ability of the San Joaquin Hills fault has not been clearly defined but it may be able to generate an earthquake similar to other nearby active faults such as the Newport-

Inglewood fault. Its projection to the surface is located approximately 4½ km from the site and has been assigned a magnitude of 6.6.

The CDMG (Web site 2007) indicates a 10% probability of exceedance in 50 years of an acceleration of approximately 0.4g for alluvium and 0.36 for soft rock site within this area. The site is located in Seismic Zone 4 of the 1997 edition of the Uniform Building Code (UBC).

The site is not currently located within a State and County designated Seismic Hazard Zone for liquefaction potential (CDMG, 2001).

2.4 SUBSURFACE CONDITIONS

The site is generally underlain by artificial fill soils over terrace deposits and bedrock of the Topanga Formation. A discussion of the subsurface soils/bedrock encountered is presented below. Detailed descriptions of the soils are provided in the boring logs presented in Appendix A.

2.4.1 Artificial Fill

Fill was encountered in all of the borings drilled within the site area. As observed in our borings, fill soils to a depth of 28 feet below existing grade, were encountered. The fill depth should be expected to vary between and beyond the borings. Based on the USGS Topographic Map, the ground surface formerly sloped to the north, and the fill should be expected to be thicker on the north side of the site. The three borings on the south side of the site confirmed shallower fill thicknesses of less than about 15 feet near the southern margin.

The borings indicate that a large portion of the fill appears to have been derived from local terrace deposits and import from various alluvium sources. Below a thin topsoil layer, the fill observed generally consists of clay, clayey sand, silty sand and sand. Borings B-1, B-2 and B-6 had a clay cap about 5 to 6 feet thick, and Boring B-4 near the center of the site had clay extending to approximately 10 feet. The other borings had clay mixed with the sand. The fill is presumably the result of the previous development for the existing building.

The fill was observed to range from soft to stiff and loose to medium dense, and from slightly moist to wet. The in-situ moisture content test results ranged from about 8 to 31 percent with an average of about 17 percent, as measured from samples obtained from the borings. The corresponding dry unit weights range from 93 to 119 pcf with an average of about 107 pcf. Some of the moisture may be as high as 18 percent above optimum. Three maximum density tests were performed to obtain an indication of the relative compaction of the fill. Based on our interpretation of the data, the relative compaction for the depths of the maximum density tests appears to be generally less than 90 percent. At the time this report was prepared, observation and testing documentation for the fill had not been found. The consolidation test data presented in Appendix B and the blow counts presented on the boring logs should also be reviewed to evaluate the compressibility of the fills.

Based on our visual observation and the Atterberg Limit test results, the clay ranges from low to high plasticity. The two expansion index tests indicated moderate to high expansion potential for the clay soils.

2.4.2 Terrace Deposits

The marine terrace deposits encountered below the fill consisted primarily of dense to very dense silty sand, sand with silt and poorly graded fine-grained sand. The terrace deposits were encountered at depths of about 12 to 27 feet below the existing ground surface. The thickness of the terrace deposits encountered in the borings ranges from approximately 9 to 25 feet.

The laboratory test data indicate moisture contents between about 4½ and 18 percent with an average of about 6½ percent. The corresponding dry unit weights range between 99 and 115 pcf with an average of approximately 104 pcf. The gradation tests indicate predominantly poorly graded fine-grained sand. A friction angle of 37 degree was obtained with the direct shear tests.

The terrace deposits generally ranges from dense to very dense. The blow counts presented on the boring logs should be reviewed to evaluate the compressibility of the terrace deposits. Appropriate correction factors should be used for the blow counts depending upon the type of sampler, depth and other factors.

2.4.3 Topanga Formation

The bedrock was encountered below the terrace deposits at depths ranging from approximately 32 to 37 feet. The bedrock has been assigned to the Paularino Member of the Topanga Formation. The bedrock encountered generally consists of siltstone and sandstone and sedimentary breccia. The Paularino Member is generally relatively weathered within the upper 5 to 10 feet and gradually less weathered with depth except for localized areas where it can be completely weathered (soil-like). Depending upon the degree of weathering, the material can be soil-like or very strong, hard rock.

The laboratory test data indicate moisture contents ranging from about 13 percent for the sandstone to about 39 percent for the siltstone with an average of about 28 percent. The corresponding dry unit weights range between 86 and 112 pcf with an average of approximately 99 pcf.

2.5 GROUNDWATER

Published information indicates that the historic high groundwater level is approximately 10 feet below the ground surface. Groundwater was observed in five of the borings drilled. Groundwater appears to be generally perched near the contact of the bedrock and terrace deposits and follows joints, fractures, and beds within the bedrock.

The groundwater depths encountered during the recent borings are listed in Table 1. Groundwater levels should be expected to vary throughout the year. Elevated zones of perched water and high soil moisture content should be anticipated during and following the rainy season. Irrigation of landscaped areas can also cause fluctuations of local groundwater levels. Local perched water may be encountered within the existing fill.

Table 1. Groundwater Levels*

Location	Boring No.	Groundwater Depth (Feet)	Groundwater Elevation (Feet)	Date
SW Corner of Site	B-2	41	65	4/17/077
NW Corner of Site	B-3	41	65	4/17/077
NW Corner of Planter	B-4	35	72	4/17/077
NE Corner of Site	B-5	35	72	4/17/077
East Side of Site	B-6	45	60	4/17/077

*See Boring Location Map for Locations.

3.0 FINDINGS

Relatively deep artificial fills ranging from sand to fat clay were encountered at the site. The compressibility of the fill was found to range from low to moderately high. The limited testing indicates that the relative compaction may be generally less than 90 percent for the depths tested. The optimum moisture content of the fill samples obtained is generally between 9 and 13 percent while the insitu moistures range predominantly between 8 and 31 percent with an average of about 17 percent.

Laboratory testing indicated that some soils have medium to high expansion potential. The soluble sulfate and chloride contents of the soils tested were found to be low to moderate.

Environmental soil testing did not encounter high concentrations of hazardous wastes and handling, transport, and/or disposal as California hazardous or Resource Conservation and Recovery Act (RCRA) hazardous wastes is not required for the samples tested. TPH and VOCs were not detected in the samples. The CCR Title 22 Metals concentrations detected in the soil samples were below their respective Preliminary Remediation Goals. The results of the environmental testing are presented in Appendix C.

The bidders should review all field and laboratory data and anticipate variation in soil conditions and properties.

This study may not have disclosed all the various fill and underground facilities. The bidders should review all existing documents for additional information regarding previous excavations and buried facilities.

4.0 LIMITATIONS

This geotechnical data report has been prepared for the exclusive use of UCI and their agents for specific application to the proposed Telemedicine Building located at the University of California, Irvine (UCI) campus in Irvine, California. The findings presented in this report were prepared in accordance with generally accepted geotechnical engineering practice. No other warranty, express or implied, is made. The purpose of the geotechnical data report is to characterize the soil and bedrock conditions at the site. We understand that the data report will be provided to the design-build teams bidding on the project so that they may develop a design-level geotechnical report that is specific to their building design concept.

The scope of our geotechnical services did not include any environmental site assessment for the presence or absence of hazardous/toxic materials in surface water, groundwater or atmosphere, or the presence of wetlands.

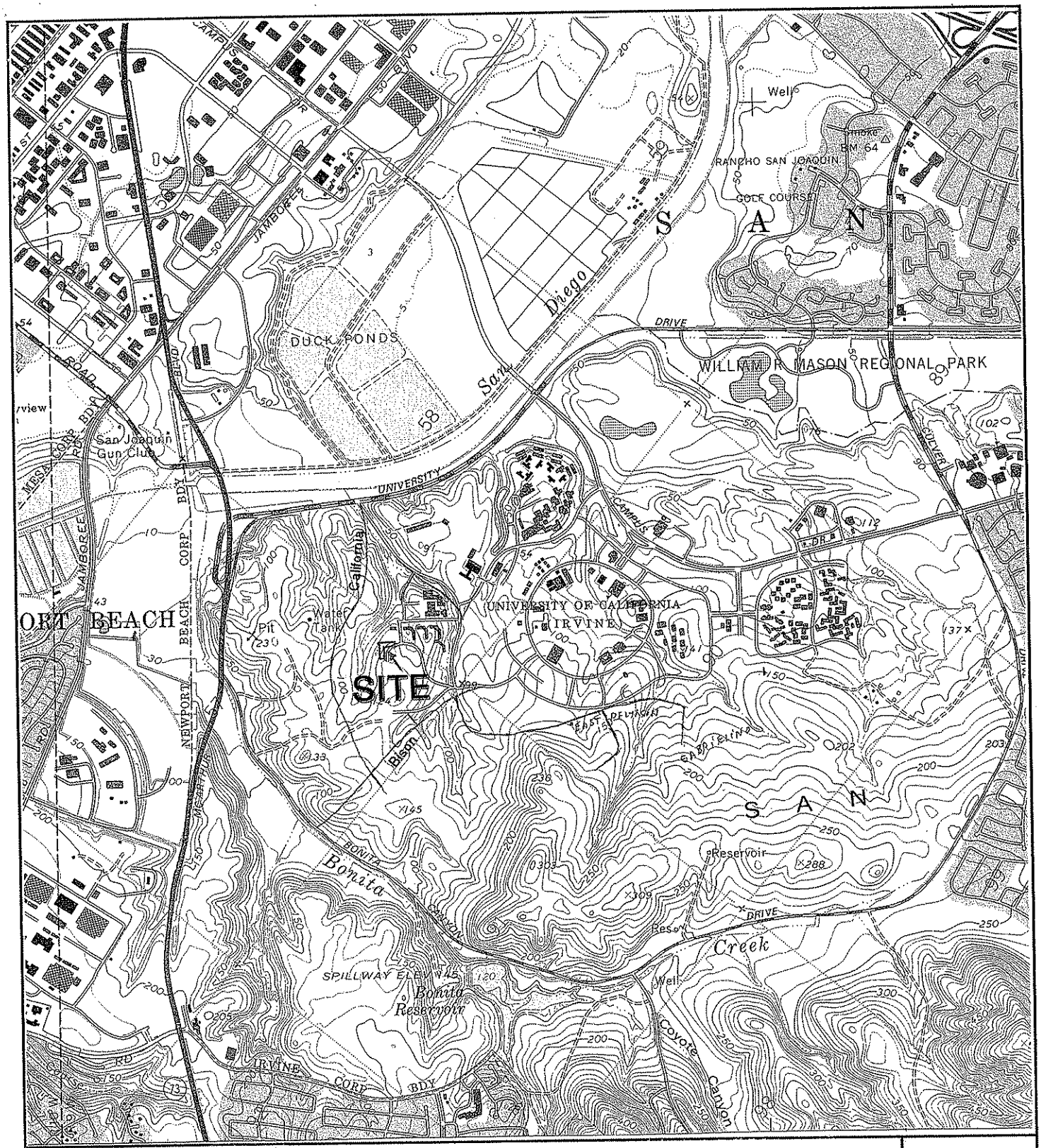
The client has the responsibility to see that all parties to the project, including the designer, contractor, subcontractors, etc., are made aware of this report in its entirety. This report contains information, which may be useful in the preparation of contract specifications. However, the report is not designed as a specification document and may not contain sufficient information for this use without proper modification.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance, but in no event later than one year from the date of the report. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party, other than the client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of this report and the nature of the new project, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and the client agrees to defend, indemnify, and hold harmless Kleinfelder from any claims or liability associated with such unauthorized use or non-compliance.

5.0 REFERENCES

California Division of Mines and Geology, 1998, Seismic Hazard Evaluation of the Tustin 7.5-Minute Quadrangle, Orange County, Open File Report 97-20, revised 2001.

Miller, R.V. and Tan, S.S., Geology and Engineering Geologic Aspects of the South Half Tustin Quadrangle, Orange County, California, California Division of Mines and Geology, 1976



REFERENCE: **USGS TUSTIN QUADRANGLE 1965, PHOTOREVISED, 1981**
7.5 MINUTE SERIES, TOPOGRAPHIC MAPS

SCALE: 0 2000 10000 FEET
0 1 2 MILES

NORTH

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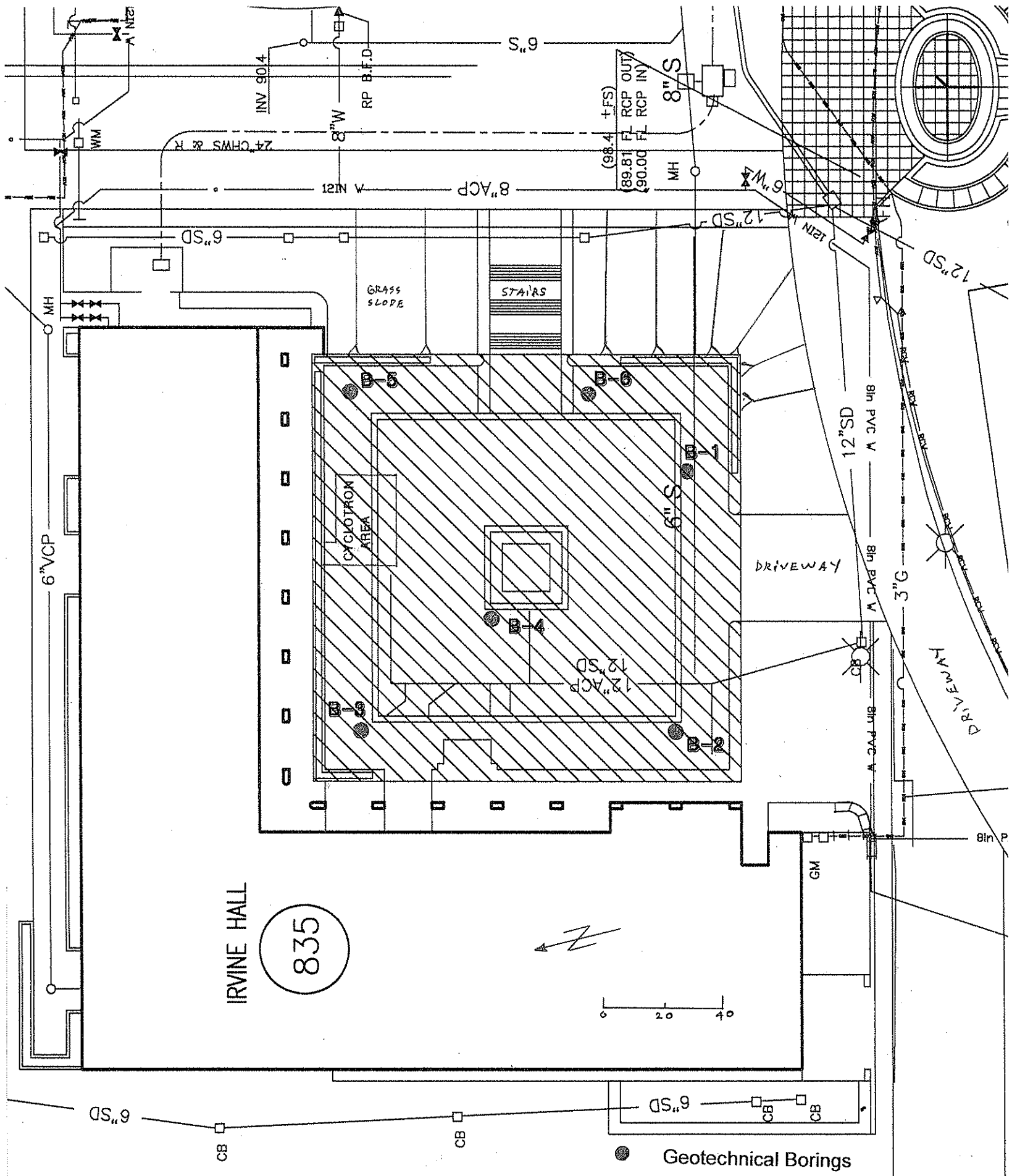
SITE LOCATION MAP



BORING LOCATION MAP

APPENDIX A
FIELD EXPLORATIONS

APPENDIX A
FIELD EXPLORATIONS

The field exploration consisted of a site reconnaissance and drilling borings. Six borings were drilled to depths ranging between 41.5 and 51.5 feet, using limited-access hollow-stem-auger drilling equipment, on April 17, 2007. Three hand-auger borings were also excavated to depths of about 2 feet on April 18, 2007 to obtain soil samples for environmental analytical testing. At the completion of drilling, the boreholes were backfilled with the excavated soils.

The Logs of Borings are presented as Plates A-2 through A-7. An explanation to the logs is presented as Plates A-1a and A-1b. The Logs of Borings describe the earth materials encountered, samples obtained and show field and laboratory tests performed. The logs also show the boring number, drilling date and the name of the drilling subcontractor. The boundaries between material types shown on the logs are approximate because the transition between different layers may be gradual. Bulk and relatively undisturbed samples of representative earth materials were obtained from the borings.

The Logs of Borings indicate the approximate boring elevations. These elevations are for illustration purpose only since there was no topographic map available with the elevations of the courtyard area at the time the report was prepared.

A Modified California sampler was used to obtain relatively undisturbed samples of the soil encountered. This sampler consists of a 3-inch O.D., 2.4-inch I.D. split barrel shaft that is pushed or driven a total of 18 inches into the soil at the bottom of the boring. The material was retained in seven 1-inch brass rings for laboratory testing. The sampler was driven using a 140-pound automatic hammer falling 30-inches. The total number of blows required to drive the sampler for the last 12 inches is termed blow count and is recorded on the Logs of Borings.

Samples were also obtained using a Standard Penetration Sampler (SPT). This sampler consists of a 2-inch O.D., 1-inch I.D. split barrel shaft that is advanced into the materials at the bottom of the drill hole a total of 18 inches. The sampler was driven using a 140-pound hammer falling 30 inches. The total number of hammer blows required to drive the sampler the final 12 inches is termed the SPT blow count (N) and is recorded on the Logs of Borings. The procedures we employed in the field are

generally consistent with those described in ASTM Standard Test Method D1586. Bulk samples of the soils were retrieved directly from the auger blades.

Date Drilled:
Drilled By:
Drilling Method:
Logged By:

Water Depth:
Date Measured:
Reference Elevation:
Datum:

Elevation (feet) Depth	Sample	Sample No.	Blow Count (Blows/ft.)	Graphic Log	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Dry Density (pcf)	Moisture Content (%)	Additional Tests
		1	6			108	10	DS, SE
		2	12					GS
5								
	(1)	(2)	(3)	(4)	(5)	(6)	(6)	(7)
10								

NOTES ON FIELD INVESTIGATION

1. SAMPLE – Graphical representation of sample type as shown below.
   - Split Spoon – Standard Penetration Test Sample (SPT)
   - Drive Sample – California Sample (Cal)
   - Bulk Sample – Obtained by collecting cuttings in a plastic bag
   - Tube Sample – Shelby/Pitcher Tube Sample

2. SAMPLE NO. – Sample Number

3. BLOWS/FT – Number of blows required to advance sampler 1 foot (unless a lesser distance is specified). Samplers in general were driven into the soil at the bottom of the hole with a standard (140 lb) hammer dropping a standard 30 inches. Drive samples collected in bucket auger borings may be obtained by dropping non-standard weight from variable heights. When a SPT sampler is used the blow count conforms to ASTM D-1586.

   SCR/RQD – Sample Core Recovery (SCR) in percent (%) and Rock Quality Designation (RQD) in percent (%). RQD is defined as the percentage of core in each run which the spacing between natural fractures is greater than 4 inches. Mechanical breaks of the core are not considered.

4. GRAPHIC LOG – Standard symbols for soil and rock types, as shown on plate B-1b.

5. GEOTECHNICAL DESCRIPTION

   Soil – Soil classifications are based on the Unified Soil Classification System per ASTM D-2487, and designations include consistency, moisture, color and other modifiers. Field descriptions have been modified to reflect results of laboratory analyses where deemed appropriate.

   Rock – Rock classifications generally include a rock type, color, moisture, mineral constituents, degree of weathering, alteration, and the mechanical properties of the rock. Fabric, lineations, bedding spacing, foliations, and degree of cementation are also presented where appropriate.

   Description of soil origin or rock formation is placed in brackets at the beginning of the description where applicable, for example, Residual Soil.

6. DRY DENSITY, MOISTURE CONTENT: As estimated by laboratory or field testing.

7. ADDITIONAL TESTS – (Indicates sample tested for properties other than the above):
   - MAX – Maximum Dry Density
   - GS – Grain Size Distribution
   - SE – Sand Equivalent
   - EI – Expansion Index
   - CHEM – Sulfate and Chloride Content, pH, Resistivity
   - PM – Permeability
   - UU – Unconsolidated Undrained Triaxial
   - SG – Specific Gravity
   - HA – Hydrometer Analysis
   - AL – Atterberg Limits
   - RV – R-Value
   - CN – Consolidation
   - CU – Consolidation Undrained Triaxial
   - CD – Consolidated Drained Triaxial
   - PP – Pocket Penetrometer
   - WA – Wash Analysis
   - DS – Direct Shear
   - CP – Collapse Potential
   - UC – Unconfined Compression
   - T – Torvane

8. ATTITUDES – Orientation of rock discontinuity observed in bucket auger boring or rock core, expressed in strike/dip and dip angle, respectively, preceeded by a one-letter symbol denoting nature of discontinuity as shown below.

   B: Bedding Plane J: Jointing C: Contact F: Fault S: Shear

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EXPLANATION OF LOGS

PLATE
A-1a

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487)

PRIMARY DIVISIONS			GROUP SYMBOLS		SECONDARY DIVISIONS
COARSE-GRAINED SOILS MORE THAN HALF OF MATERIALS IS LARGER THAN #200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN #4 SIEVE	CLEAN GRAVELS (LESS THAN) 5% FINES	GW		WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP		POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVEL WITH FINES	GM		SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC		CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN #4 SIEVE	CLEAN SANDS (LESS THAN) 5% FINES	SW		WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP		POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM		SILTY SANDS, SAND-SILT MIXTURES
			SC		CLAYEY SANDS, SAND-CLAY MIXTURES
FINE-GRAINED SOILS MORE THAN HALF OF MATERIALS IS SMALLER THAN #200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50		ML		INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL		ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
	HIGHLY ORGANIC SOILS		PT		PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS
TYPICAL FORMATIONAL MATERIALS	SANDSTONES		SS		
	SILTSTONES		SH		
	CLAYSTONES		CS		
	LIMESTONES		LS		
	SHALE		SL		

CONSISTENCY CRITERIA BASED ON FIELD TESTS

RELATIVE DENSITY: COARSE-GRAINED SOIL

RELATIVE DENSITY	SPT * (# blows/ft)	RELATIVE DENSITY (%)
Very Loose	<4	0 - 15
Loose	4 - 10	15 - 35
Medium Dense	10 - 30	35 - 65
Dense	30 - 50	65 - 85
Very Dense	>50	85 - 100

CONSISTENCY: FINE-GRAINED SOIL

CONSISTENCY	SPT (# blows/ft)	TORVANE UNDRAINED SHEAR STRENGTH (tsf)	POCKET ** PENETROMETER UNCONFINED COMPRESSIVE STRENGTH (tsf)
Very Soft	<2	<0.13	<0.25
Soft	2 - 4	0.13 - 0.25	0.25 - 0.5
Medium Stiff	4 - 8	0.25 - 0.5	0.5 - 1.0
Stiff	8 - 15	0.5 - 1.0	1.0 - 2.0
Very Stiff	15 - 30	1.0 - 2.0	2.0 - 4.0
Hard	>30	>2.0	>4.0

* NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1 3/8 INCH I.D.) SPLIT BARREL SAMPLER (ASTM-1586 STANDARD PENETRATION TEST)

** UNCONFINED COMPRESSIVE STRENGTH IN TONS/SQ.FT. READ FROM POCKET PENETROMETER

MOISTURE CONTENT

DESCRIPTION	FIELD TEST
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

CEMENTATION

DESCRIPTION	FIELD TEST
Weakly	Crumbles or breaks with handling or slight finger pressure
Moderately	Crumbles or breaks with considerable finger pressure
Strongly	Will not crumble or break with finger pressure

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EXPLANATION OF LOGS

PLATE A-1b

Date Drilled:	4/17/07	Water Depth:	N/A
Drilled By:	Cal Pac Drilling	Date Measured:	N/A
Drilling Method:	Hollow-Stem Auger, 8"	Elevation:	106 feet (approx.)
Logged By:	JBR	Datum:	MSL

Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION	Dry Density (pcf)	Moisture Content (%)	Additional Tests
105 / 0					6 inches of topsoil underlain by 6 inches of sand			
					FILL			
		1			**Sandy Lean Clay (CL):** gray to orange brown, very moist to wet, soft		22.1	
		2					21.4	WA (60% fines)
		3						
100 / 5		4	27			110	14.4	GS (29% fines)
					Silty Sand (SM): fine to medium-grained, orange brown, sandy clay inclusions, moist, medium dense			
95 / 10		5	35			98	11.3	
					MARINE TERRACE DEPOSITS			
90 / 15		6	62		**Poorly Graded Sand with Silt (SP-SM):** fine-grained, greyish brown with rusty orange layers 1/16 to 1/4" thick, dense, slightly moist	99	6.5	GS (6% fines)
85 / 20		7	46				5.1	
80 / 25		8	42/50-5"			100	7.2	WA (7% fines)
75 / 30		9	37				5.8	
70 / 35		10	38/50-4"			100	5.7	
					TOPANGA FORMATION			
65 / 40		11	41/50-4"		**Sandstone (SP):** interbedded with siltstone, oxidized pockets, very weak cementation, moist			

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TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

PLATE A-2a

PROJECT NO. 82780

LOG OF BORING B-1

Drafted By: Reviewed By:

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

GEOTECH DB TELEMED.GPJ KA RDLND.GDT 5/15/07

Elevation (feet) Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*	Dry Density (pcf)	Moisture Content (%)	Additional Tests
							27.6	
60					Total depth 43 feet Refusal of the auger Hole backfilled No groundwater encountered Hole drilled in grass area on east side of driveway entrance			

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KLEINFELDER

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TELEMEDICINE BUILDING
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LOG OF BORING B-1

PLATE

A-2b

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Date Drilled:	4/17/07	Water Depth:	41 feet
Drilled By:	Cal Pac Drilling	Date Measured:	4/17/07
Drilling Method:	Hollow-Stem Auger, 8"	Elevation:	106 feet (approx.)
Logged By:	JBR	Datum:	MSL

Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION	Dry Density (pcf)	Moisture Content (%)	Additional Tests
105					Topsoil 6" over 6" of sandy clay and 12" of silty sand			
					FILL			
		1			**Sandy Lean Clay (CL):** dark brown and orange brown, very moist to wet, soft		20.6	WA (41% fines)
		2						CHEM
		3			Layer of orange brown silty sand		18.6	WA (60%)
							13.2	
100 5		4	19			107	24.2	CN
					Silty Sand (SM): fine-grained, orange brown and greyish brown, clay inclusions, mottled reddish brown, fine grained, gray, medium dense	107	18.8	WA (62% fines)
		5	32			105	8.8	
95 10		6	20		Orange brown lean clay inclusions, pinhole porosity at 11.5 feet	110	15.6	CN WA (30% fines)
					MARINE TERRACE DEPOSITS			
90 15		7	30/50-4"		**Poorly Graded Sand (SP):** fine-grained, greyish brown with rusty orange layers 1/16 to 1/4" thick, dense to very dense, slightly moist	102	4.7	GS (4% fines)
85 20		8	53				5.4	
80 25		9	46/50-3"			103	5.5	
75 30		10	69				6.1	
70 35		11	93		Orange brown sand with silt and shells	115	7.6	
65 40		12	94		**TOPANGA FORMATION** **Sandstone interbedded with Siltstone:** grey and olive brown, very moist, very weakly cemented, highly weathered			

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TELEMEDICINE BUILDING
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LOG OF BORING B-2

PLATE A-3a

Drafted By: Reviewed By:

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

GEOTECH DB TELEMED.GPJ KA RDLND.GDT 5/15/07

Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*	Dry Density (pcf)	Moisture Content (%)	Additional Tests
					TOPANGA FORMATION **Sandstone interbedded with Siltstone:** grey and olive brown, very moist, very weakly cemented, highly weathered *(continued)*		32.1	
60 / 45		13	30/50-5"		Grey siltstone with interbeds of grey sandstone	91	32.1	
					Siltstone: olive gray, thin sandstone interbeds, weak, highly weathered, very moist			
55 / 50		14	58				38.9	
					Total depth 51.5 feet Hole backfilled Groundwater encountered at 50 feet and raised to 41 feet after 7 hours Hole drilled in grass area on the west side of the driveway entrance			

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TELEMEDICINE BUILDING
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LOG OF BORING B-2

PLATE

A-3b

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Date Drilled:	3/13/07	Water Depth:	41 feet
Drilled By:	Cal Pac Drilling	Date Measured:	4/17/07
Drilling Method:	Hollow-Stem Auger, 8"	Elevation:	106 feet (approx.)
Logged By:	JBR	Datum:	MSL

Elevation (feet) Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION	Dry Density (pcf)	Moisture Content (%)	Additional Tests
105					Topsoil 4", roots			
		1			**FILL**		9.3	
		2			**Silty Sand (SM):** fine to medium-grained, orange brown, pockets and layers of sandy clay, loose to medium dense, moist to wet		12.7	
		3			MAX=123.5 pcf, Opt=10.5%			
100	5	4			wet		19.7	WA (35% fines) MAX
		5	16		Tan	105	17.8	
		6	13			93	16.1	GS (10% fines)
95	10	7	15		Brown sandy clay inclusions	112	17.1	
90	15	8	29		Orange brown and gray silty sand, very moist	108	16.9	
85	20	9	17		Layers of orange and dark brown sandy clay		15.5	
80	25	10	19			116	13.9	
					MARINE TERRACE DEPOSITS			
75	30	11	42		**Poorly Graded Sand (SP):** greyish brown with rusty orange layers 1/16 to 1/4" thick, dense, slightly moist		5.5	WA (4% fines)
70	35	12	41				18.1	
					TOPANGA FORMATION	115	11.0	
65	40	13	16		**Sandstone interbedded with Siltstone:** orange and gray sandstone and brown siltstone, moist, very weakly cemented, highly weathered			
					Olive grey siltstone, thin sandstone interbeds			

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TELEMEDICINE BUILDING
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LOG OF BORING B-3

PLATE
A-4a

Drafted By: Reviewed By:

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*	Dry Density (pcf)	Moisture Content (%)	Additional Tests
					TOPANGA FORMATION		38.2	
60 / 45		14	32/50-5"		**Sandstone interbedded with Siltstone:** orange and gray sandstone and brown siltstone, moist, very weakly cemented, highly weathered *(continued)* Grey and orange sandstone, very weakly cemented	88	30.8	
55 / 50		15	32		Olive grey sandstone interbedded with siltstone, very weak cementation		32.9	
					Total depth 51.5 feet Hole backfilled Groundwater encountered at 45 feet and measured at 41 feet after 3 hours Hole drilled in landscape in the northwest corner of the site			

GEOTECH DB TELEMED.GPJ KA RDLND.GDT 5/15/07

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LOG OF BORING B-3

PLATE
A-4b

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Date Drilled:	4/17/07	Water Depth:	35 feet
Drilled By:	Cal Pac Drilling	Date Measured:	4/17/07
Drilling Method:	Hollow-Stem Auger, 8"	Elevation:	105 feet (approx.)
Logged By:	JBR	Datum:	MSL

Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION	Dry Density (pcf)	Moisture Content (%)	Additional Tests
					Red pavers over 2" of sand, over 5" concrete slab and 6" of agg base			
					FILL			
		1			**Silty Sand (SM):** fine to coarse-grained, grey, wet		18.3	GS (14% fines)
		2			**Sandy Lean Clay (CL):** mottled orange brown and dark brown, medium stiff to stiff, wet LL=49 PL=15 MAX=127 pcf, Opt=11.0%		28.7	WA (74% fines)
100		3					23.0	AL CHEM EI=90 MAX CN
5		4	9		Orange brown silty sand layer	105	19.9	
		5				101	23.9	
		6	33			112	19.7	WA (55% fines)
95								
10		7	16		**Silty Sand (SM):** fine to medium-grained, grey and orange brown, layers and pockets of sandy clay, medium dense, moist	113	14.1	CN
90								
15		8	23		Sandy lean clay layers and pockets	116	14.5	
85								
20		9	22		Layers of orange brown sandy lean clay		10.5	
80					**MARINE TERRACE DEPOSITS**			
25		10	38/50-5"		**Poorly Graded Sand with Silt (SP-SM):** fine-grained, greyish brown with rusty orange layers 1/16 to 1/4" thick, dense to very dense, slightly moist	103	4.9	
75								
30		11	55				5.1	
70					**TOPANGA FORMATION**			
35		12	20/50-5"		**Sandstone interbedded with Siltstone:** gray sandstone and olive brown siltstone, very weakly cemented, very moist, highly weathered	86	34.2	
65								
40		13	44		Grey silty sandstone, very moist			

GEOTECH DB TELEMED.GPJ KA_RDLND.GDT 5/15/07

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TELEMEDICINE BUILDING
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LOG OF BORING B-4

PLATE
A-5a

Drafted By: Reviewed By:

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Elevation (feet) Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*	Dry Density (pcf)	Moisture Content (%)	Additional Tests
							29.1	
60					Total depth 41.5 feet Hole backfilled Groundwater encountered at 35 feet Hole drilled at northwest corner of center planter			

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LOG OF BORING B-4

PLATE

A-5b

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Date Drilled:	4/17/07	Water Depth:	35 feet
Drilled By:	Cal Pac Drilling	Date Measured:	4/17/07
Drilling Method:	Hollow-Stem Auger, 8"	Elevation:	106 feet (approx.)
Logged By:	JBR	Datum:	MSL

Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION	Dry Density (pcf)	Moisture Content (%)	Additional Tests
105					Topsoil 6"			
		1			**FILL**		11.5	
		2			**Poorly Graded Sand with Silt (SP-SM):** fine to medium-grained, greyish brown, loose to medium dense, moist		12.8	GS (12% fines)
		3						
100 / 5		4	18			99	14.1	DS
		5	22			102	14.3	GS (9% fines)
95 / 10		6	9		Layers and lenses of orange brown sandy clay		16.2	
90 / 15		7	19		Mottled yellow brown, orange brown and grey	110	10.9	WA (10% fines)
					MARINE TERRACE DEPOSITS			
85 / 20		8	37		**Poorly Graded Sand (SP):** fine-grained, greyish brown with rusty orange layers 1/16 to 1/4" thick, dense to very dense, slightly moist		7.0	
80 / 25		9	36/50-3"			101	5.7	
75 / 30		10	54				9.5	
					TOPANGA FORMATION			
70 / 35		11	38/50-5"		**Sandstone interbedded with Siltstone:** gray sandstone and brown siltstone, very weakly cemented, moist, highly weathered	112	14.4	
65 / 40		12	44		Grey silty sandstone, very weakly cemented, very moist			

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TELEMEDICINE BUILDING
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LOG OF BORING B-5

PLATE A-6a

Drafted By: Reviewed By:

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Elevation (feet) Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*	Dry Density (pcf)	Moisture Content (%)	Additional Tests
							22.7	
					Total depth 41.5 feet Hole backfilled Groundwater encountered at 35 feet Hole drilled in grass area in the northwest corner of the site			
-60								

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LOG OF BORING B-5

PLATE

A-6b

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Date Drilled:	4/17/07	Water Depth:	45 feet
Drilled By:	Cal Pac Drilling	Date Measured:	4/17/07
Drilling Method:	Hollow-Stem Auger, 8"	Elevation:	106 feet (approx.)
Logged By:	JBR	Datum:	MSL

Elevation (feet) / Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION	Dry Density (pcf)	Moisture Content (%)	Additional Tests
105					Topsoil 6"			
		1			**FILL**		22.0	
		2			**Sandy Fat Clay (CH):** orange brown and dark brown, stiff, wet		24.3	WA (74%fines) AL CHEM
		3			LL=51 PL=16			
		4			MAX=119.5 pcf Opt=12.0%		21.8	EI =118
100	5	5	15			100	30.8	WA (79% fines) CN
						116	14.5	
		6	28		**Clayey Sand (SC):** layers of silty sand, mottled grey and brown, medium dense, moist	119	14.3	WA (41% fines) DS
95	10	7	20		Orange brown silty sand with sandy clay inclusions	108	13.6	
					MARINE TERRACE DEPOSITS			
90	15	8	68		**Poorly Graded Sand with Silt (SP-SM):** fine-grained, greyish brown with rusty orange layers 1/16 to 1/4" thick, dense to very dense, slightly moist	105	5.8	WA (7% fines) DS
85	20	9	48				5.3	
80	25	10	40/50-4"			103	6.8	
75	30	11	46				4.9	
70	35	12	28/50-5"			110	13.2	
					TOPANGA FORMATION			
65	40	13	38		**Sandstone interbedded with Siltstone:** orange brown sandstone and grey siltstone, very weakly cemented, moist, highly weathered			

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TELEMEDICINE BUILDING
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LOG OF BORING B-6

PLATE

A-7a

Drafted By: Reviewed By:

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

Elevation (feet) Depth	Sample Type	Sample Number	Blows per Foot	Graphic Log	SOIL DESCRIPTION AND CLASSIFICATION *(Continued From Previous Page)*	Dry Density (pcf)	Moisture Content (%)	Additional Tests
							35.9	
45					**TOPANGA FORMATION** *(continued)* Olive grey siltstone with thin sandstone interbeds			
60		14	100		Grey sandstone interbedded with olive grey siltstone	109	16.9	
50								
55		15	52		Fine to coarse sandstone			
							20.0	

Total depth 51.5 Feet
Hole backfilled
Groundwater encountered at 45 feet
Hole drilled in grass area on the southwest side of the site

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TELEMEDICINE BUILDING
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LOG OF BORING B-6

PLATE
A-7b

Note: The boundaries between soil types shown on the logs are approximate as the transition between different soil layers may be gradual.

APPENDIX B
GEOTECHNICAL LABORATORY TESTING

APPENDIX B
GEOTECHNICAL LABORATORY TESTING

GENERAL

Laboratory tests were performed on selected, representative samples as an aid in classifying the soils and to evaluate physical properties of the soils that may affect foundation design and construction procedures. The tests were performed in general conformance with the current ASTM or California Department of Transportation (Caltrans) standards. A description of the laboratory testing program is presented below.

CLASSIFICATION

Soils were visually classified in accordance with the Unified Soil Classification System (USCS) and/or ASTM D 2488. Several classifications were substantiated with Wash Sieve testing. Soil classifications are indicated on the logs of borings in Appendix A.

MOISTURE AND UNIT WEIGHT

Moisture content and dry unit weight tests were performed on a number of samples recovered from the borings. Moisture contents were determined in general accordance with ASTM Test Method D 2216; dry unit weight was calculated using the entire weight of the samples collected. Results of these tests are presented on the logs of borings in Appendix A.

CONSOLIDATION TEST

The consolidation or volume reduction, of either "undisturbed" or remolded samples under applied stress, is determined in general conformance with procedures outlined in ASTM D2435 test method. The procedures utilize an apparatus that restricts volume change to one dimension, with a test specimen of 2.4 inches in diameter and one inch in height. The stress is applied incrementally, and the sample is permitted to consolidate under each stress increment until the change in sample thickness is less than 0.0001 inches over a one-hour period. Time readings for selected load increments are obtained after the sample has been soaked. Hydroconsolidation and expansion characteristics are also evaluated by monitoring the change in volume with the addition

of water while confined under a constant normal stress. The results of consolidation testing are presented graphically in this appendix, Plates B-1 through B-6. For this study, the samples were soaked under a pressure of 2.5 ksf.

MAXIMUM DRY UNIT WEIGHT/OPTIMUM MOISTURE CONTENT TESTS

The maximum dry unit weight and optimum moisture content of a selected soil sample was determined in accordance with ASTM Test Method D1557-02, Method A or B. The results are summarized in Table B-1 and the plot of the maximum density curve is presented on Plates B-7 through B-9.

Table B-1 Maximum Density

Boring	Depth (ft)	Soil Classification	Maximum Density	Optimum Moisture
B-3	4 – 10	Clayey Sand	123.5	10.5
B-4	2 - 5	Sandy Clay	127.0	11.0
B-6	1 - 5	Sandy Clay	119.5	12.0

GRAIN SIZE DISTRIBUTION

The grain size distribution was determined for selected samples of the materials encountered at the site to aid in their classification. The tests were performed in general accordance with ASTM Test Method D422. The distribution of particle sizes larger than the #200 sieve was determined by sieving. The results of the tests are presented on Plates B-10 through B-13.

DIRECT SHEAR TEST

Direct shear tests are performed on relatively "undisturbed" samples to determine the shear strengths of representative's soil types. The apparatus used in direct shear testing is in conformance with requirements outline in ASTM Test Method D3080. The test specimens are 2.4 inches in diameter, one inch in height, and are subjected to single shear along a plane at mid-height. Each sample is confined by a normal stress applied through a loading frame. The sample is sheared at a constant rate of strain

selected to simulate long-term static loading conditions, or short-term loading conditions associated with seismic excitation. The strain rate used for quick shear tests is 0.04 inch per minute.

The results of several direct shear tests for a selected soil type are typically plotted as peak shear strength versus applied normal stress, and a best-fit straight line through the plotted points is computed. The shear strength is described as the slope of the best-fit line, reported as the friction angle (∅), and the cohesion intercept, reported as the cohesion (C). The shear strength results are presented graphically on Plate B-14 through B-16 in this Appendix.

ATTERBERG LIMITS

Two Atteberg limits tests were performed on soil samples to aid in soil classification and to evaluate the plasticity characteristics of the materials. The tests were performed in general accordance with ASTM Test Method D 4318. The results of the tests are presented in the following Table B-2 and on the Logs of boring.

Table B-2. Atterberg Limits Test Results

Boring	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index
B-4	4 – 4½	49	15	34
B-6	2½ – 3	51	16	35

EXPANSION INDEX

Two samples of the near-surface soils were tested for expansion in accordance with UBC Standard 18-2 (1997 edition). This test method adds water to a compacted sample to determine the degree of expansion upon change in moisture content. The test results are presented in the following Table B-3.

Table B-3. Expansion Index

Boring	Depth (ft)	Soil Classification	Compacted Dry Unit Weight (pcf)	Expansion Index
B-4	4 – 4½	Sandy Lean Clay	108	90
B-6	2½ – 3	Sandy Lean Clay	104	118

The results of the tests may be compared to the table presented below to qualitatively evaluate the expansion potential of the near-surface site soils.

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

WASH SIEVE TESTS

The percent passing No. 200 sieve of selected soil samples were performed by wash sieving in accordance with ASTM Standard Test Method D 1140. Results of these tests are presented in the following Table B-4, Wash Sieve Test Results.

Table B-4. Wash Sieve Test Results

Boring	Depth (ft)	Percent Passing No. 200 Sieve
B-1	3½	60
B-1	6	29
B-1	16	6
B-1	26	7
B-2	2	41
B-2	3½	60
B-2	6	62
B-2	11	30
B-2	16	4
B-3	4	35

Table B-4. Wash Sieve Test Results (Cont'd)		
Boring	Depth (ft)	Percent Passing No. 200 Sieve
B-3	8	10
B-3	31	4
B-4	2	14
B-4	3½	74
B-4	8	55
B-5	3½	12
B-5	8	9
B-5	16	10
B-6	2½	74
B-6	6	79
B-6	8	41
B-6	16	7

R-VALUE TEST

R-value tests are performed to evaluate the material characteristics of subgrade soil or aggregate base for pavement design. One resistance value (R-value) test was performed on bulk soil samples to evaluate the characteristic of the near surface soils for pavement design. Other soil types will have different characteristics and should be tested accordingly if exposed at or near pavement subgrade level. The R-value test was performed in accordance with Caltrans Standard Test Method 301. The results are presented in Table B-5, R-Value Test Results.

Table B-5 R-Value Test Result

Boring	Depth (ft)	Soil Classification	R-Value
B-1	2 – 5	Sandy Lean Clay	5

SOIL CORROSIVITY TESTS

The potential for soils to adversely affect foundation elements or utilities (concrete and metal elements) can be evaluated from the results of soluble sulfate content, chloride content, pH and resistivity tests. The tests are performed on soils that may become in

contact with foundations and/or utilities.

The potential for deterioration of Portland cement concrete in contact with soils requires knowledge of the concentration of sulfate ions. The concentrations of water-soluble sulfate ions were determined in accordance with a turbidity procedure, EPA test method 375.4.

The chloride content of soils affects the corrosivity of mild grade steel. The concentration of chloride was determined by titration with mercuric nitrate in the presence of mixed diphenycarbazone – bromophenol blue indicator, EPA test method 325.3.

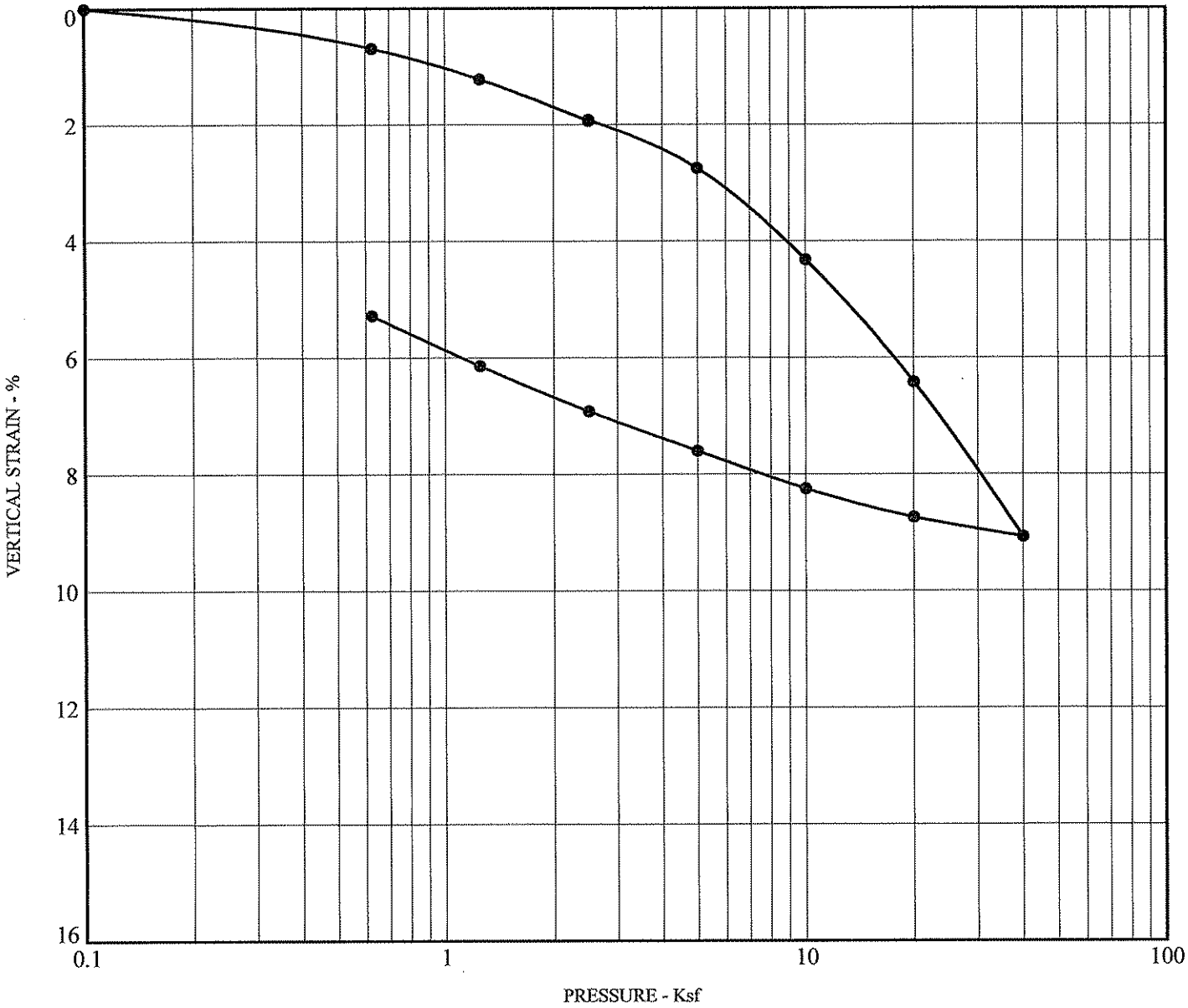
Soil pH is a measure of acidity/alkalinity of the soil. Sometimes, and in the absence of other factors, soils with a neutral pH (between 5 and 8) are not particularly aggressive, whereas soils with a pH range lower than five tend to be more corrosive to metals and may cause concrete deterioration. The pH was determined electrometrically using a combination electrode, which is calibrated using a series of standard solutions of known pH in accordance with EPA test method 9045C.

The resistivity tests are used for estimating the salt (sulfate and chloride) content of the soils and waters, and for determining the necessity for further analysis for sulfate and chloride content. Electrolytic conductivity is a measure of the ability of a solution to carry an electric current. Also called specific conductance, it is defined as the reciprocal of the resistance in ohms of a 1 CM cube of the liquid at a specified temperature. The specific conductance was measured on a 1:1 water extract by weight by use of a self-contained conductivity meter in accordance with EPA test method 120.1. The results of tests performed are summarized in Table B-6.

TABLE B-6 CORROSION TEST RESULTS

Component Analyzed	Method	Unit	B-2 @ 2'	B-4 @ 3½'	B-6 @ 4'
Sulfate (SO_4)**	375.4	Mg/kg	95	353	402
Chloride Cl**	325.3	Mg/kg	173	209	287
PH*	9045C	pH Unit	7.8	8.4	8.4
Resistivity*	120.1	Ω-cm	2620	2680	827

**Analyzed on a 1:1 water extract* ***Analyzed on a 1:10 water extract*



Boring	**B-2**
Depth (feet)	**6**
Moisture Content (%)	**18.8**
Dry Density (pcf)	**107**
Description	**Sandy Lean Clay/Sand Pockets**
Classification	**CL**
Compression Ratio	
Recompression Ratio	

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Bison and Health Sciences Road
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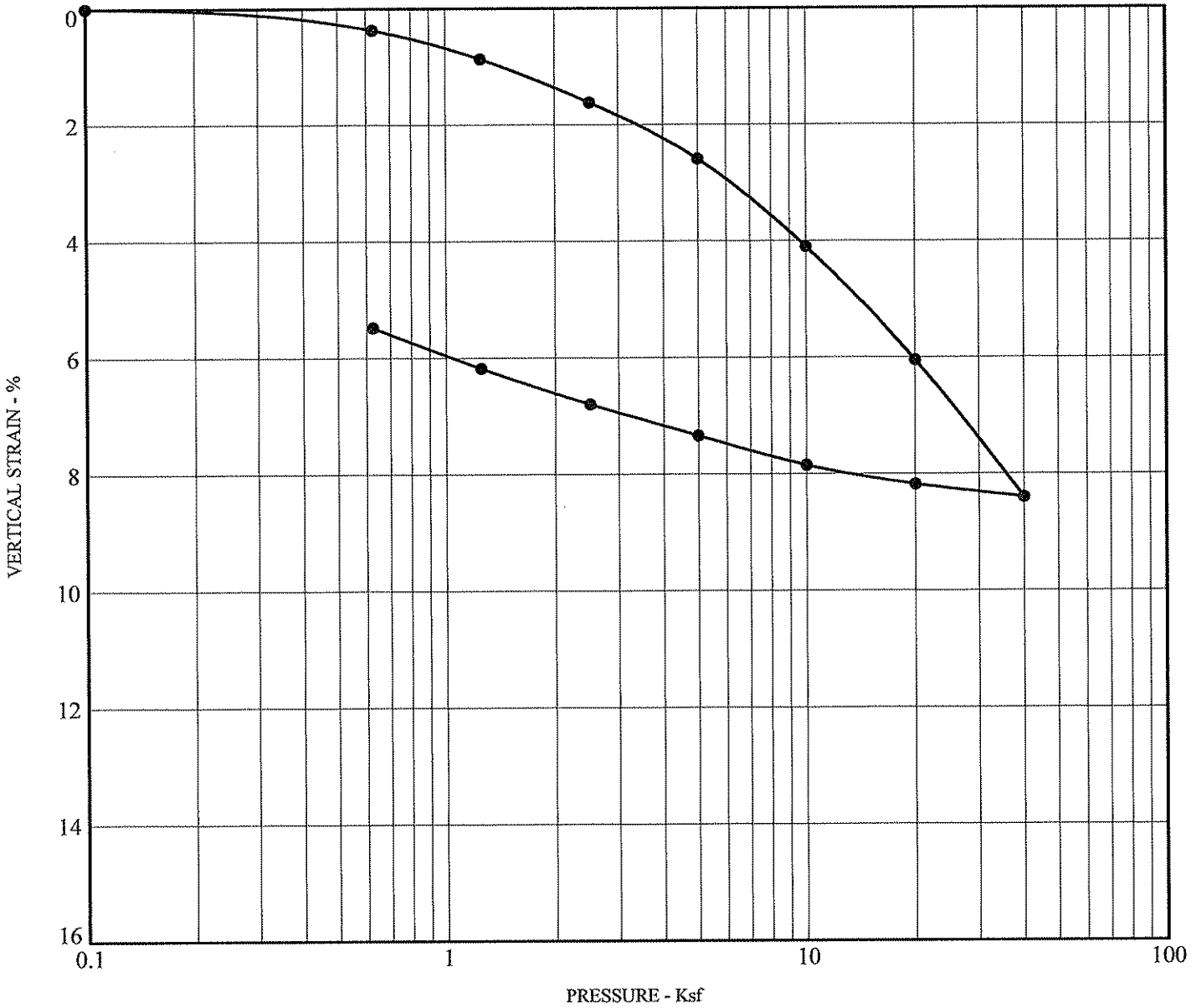
CONSOLIDATION TEST

PLATE

B-1

CONSOLIDATION TELEMED.GPJ KA_RDLND.GDT 4/30/07



Boring	**B-2**
Depth (feet)	**11**
Moisture Content (%)	**17.6**
Dry Density (pcf)	**110**
Description	**Silty Sand/Clay Pockets**
Classification	**SM**
Compression Ratio	
Recompression Ratio	

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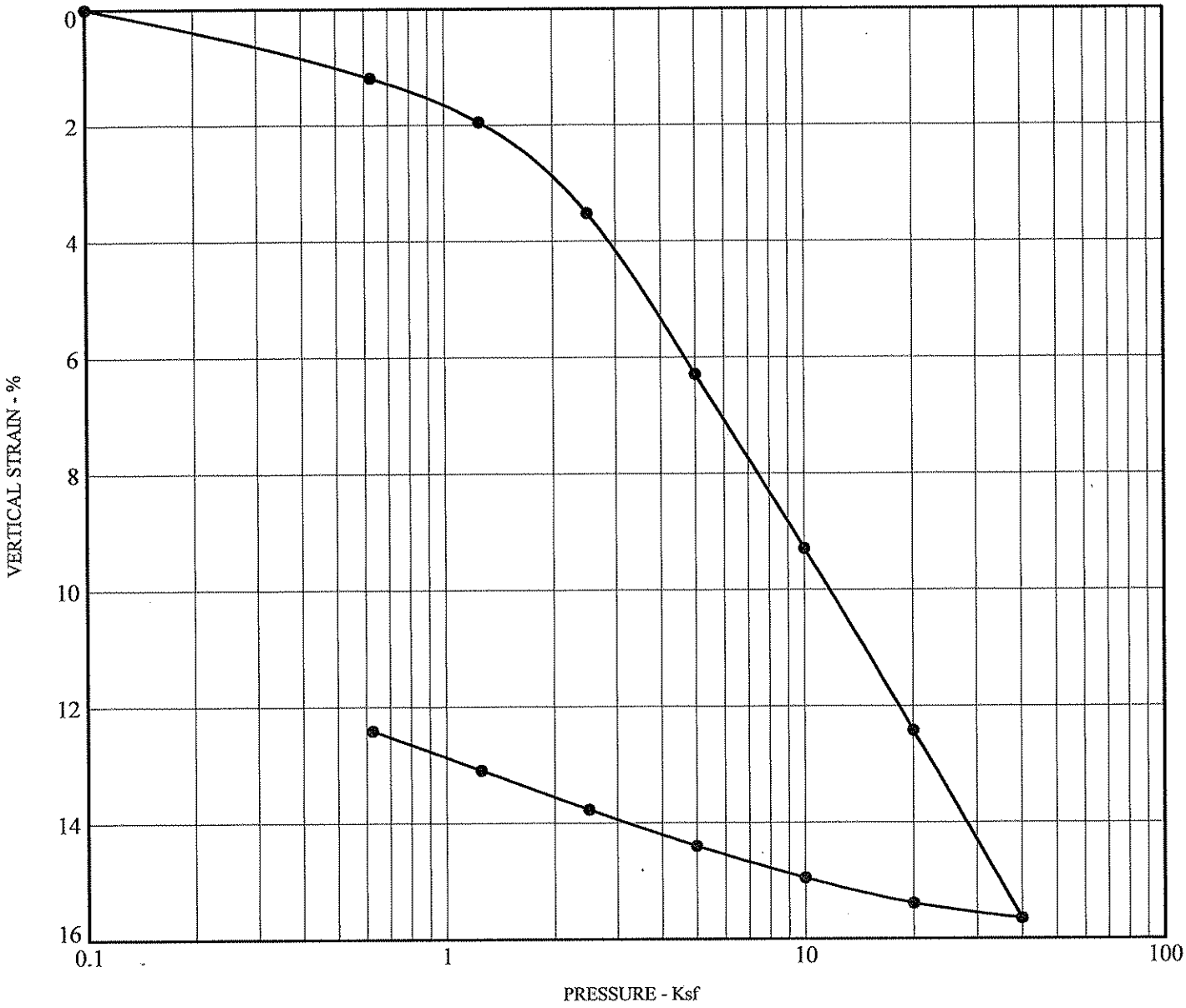
CONSOLIDATION TEST

PLATE

B-2

CONSOLIDATION TELEMED.GPJ KA RDLND.GDT 4/30/07



Boring	**B-4**
Depth (feet)	**6**
Moisture Content (%)	**23.9**
Dry Density (pcf)	**101**
Description	**Silty Sand/Sandy Clay Zones**
Classification	**SM/CL**
Compression Ratio	
Recompression Ratio	

KLEINFELDER

PROJECT NO. 82780

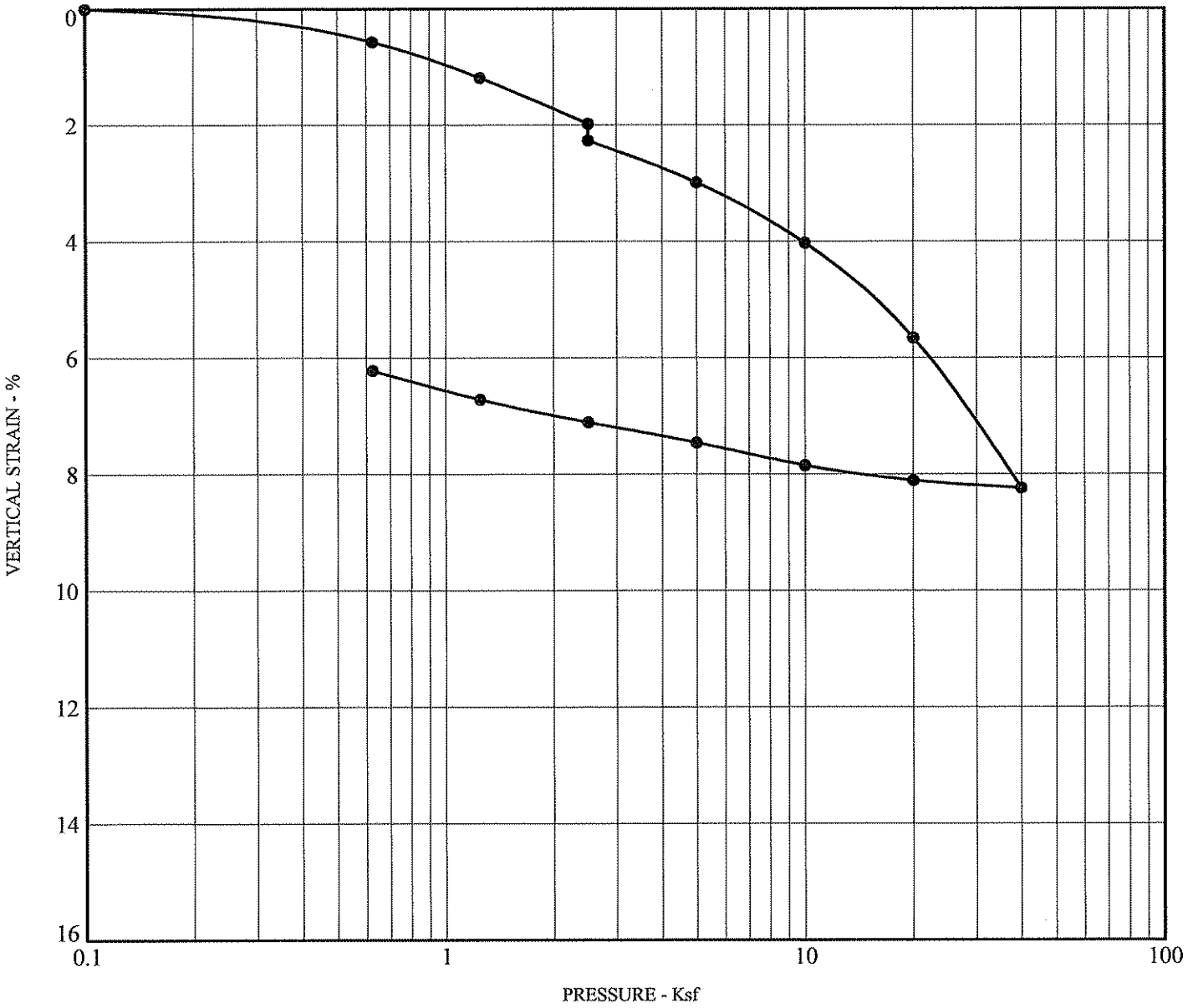
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

CONSOLIDATION TEST

PLATE

B-3

CONSOLIDATION TELEMED.GPJ KA RDLND.GDT 4/30/07



Boring	**B-4**
Depth (feet)	**11**
Moisture Content (%)	**14.8**
Dry Density (pcf)	**116**
Description	**Silty Sand**
Classification	**SM**
Compression Ratio	
Recompression Ratio	

KLEINFELDER

PROJECT NO. 82780

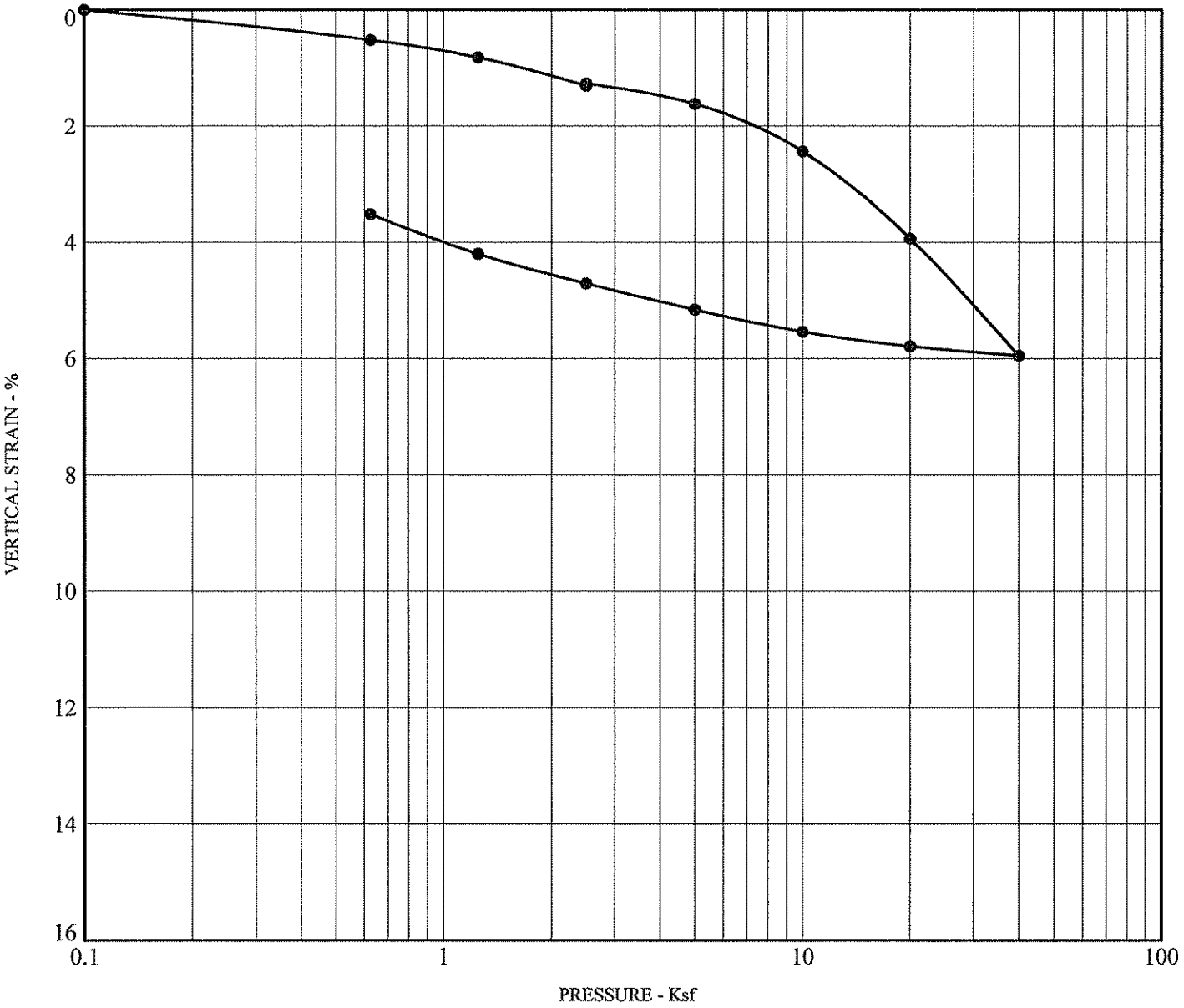
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

CONSOLIDATION TEST

PLATE

B-4

CONSOLIDATION TELEMED.GPJ KA_RDLND.GDT 4/30/07



Boring	**B-4**
Depth (feet)	**16**
Moisture Content (%)	**13.9**
Dry Density (pcf)	**115**
Description	**Silty Sand**
Classification	**SM**
Compression Ratio	
Recompression Ratio	

KLEINFELDER

PROJECT NO. 82780

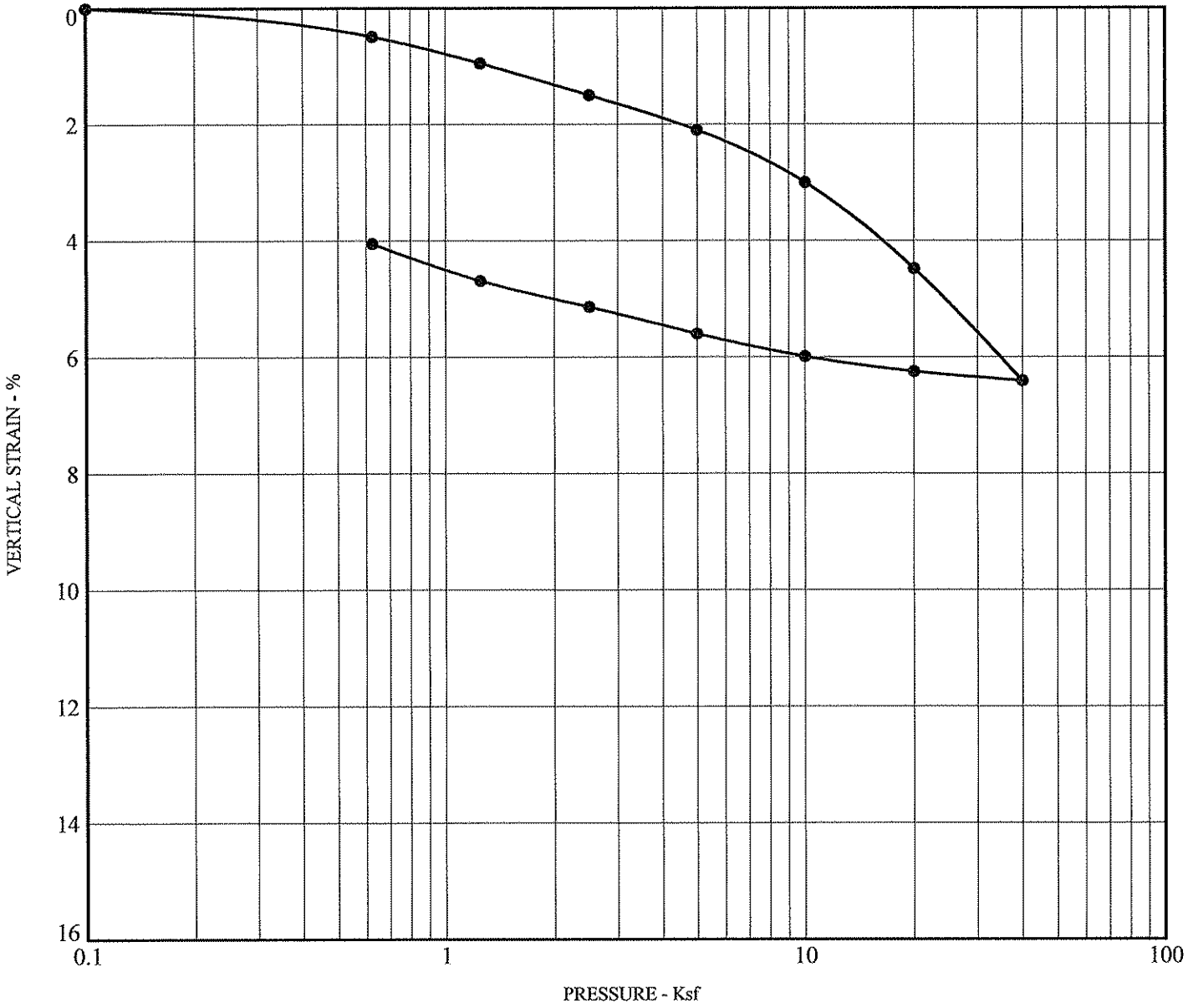
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

CONSOLIDATION TEST

PLATE

B-5

CONSOLIDATION TELEMED.GPJ KA_RDLND.GDT 4/30/07



Boring	**B-6**
Depth (feet)	**6**
Moisture Content (%)	**14.5**
Dry Density (pcf)	**116**
Description	**Clayey Sand/Sandy Clay**
Classification	**SC/CL**
Compression Ratio	
Recompression Ratio	

KLEINFELDER

PROJECT NO. 82780

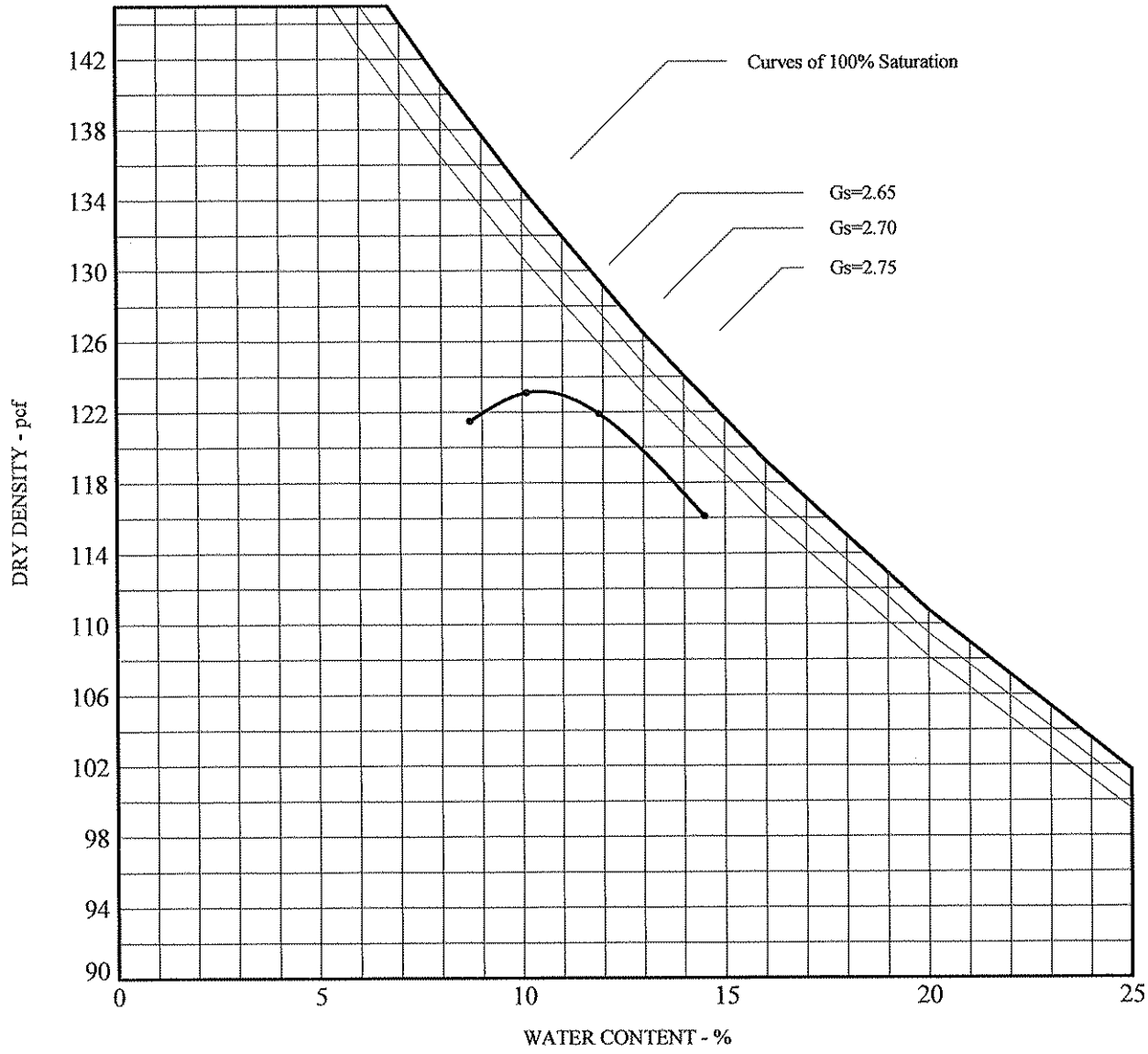
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

CONSOLIDATION TEST

PLATE

B-6

CONSOLIDATION TELEMED.GPJ KA_RDLND.GDT 4/30/07



TEST DESCRIPTION
TEST METHOD: 1557B

Boring	**B-3**
Depth (feet)	**5**
Description	**Clayey Sand**
Classification	**SC**
Maximum Dry Density (pcf)	**123.5**
Optimum Water Content (%)	**10.5**

KLEINFELDER

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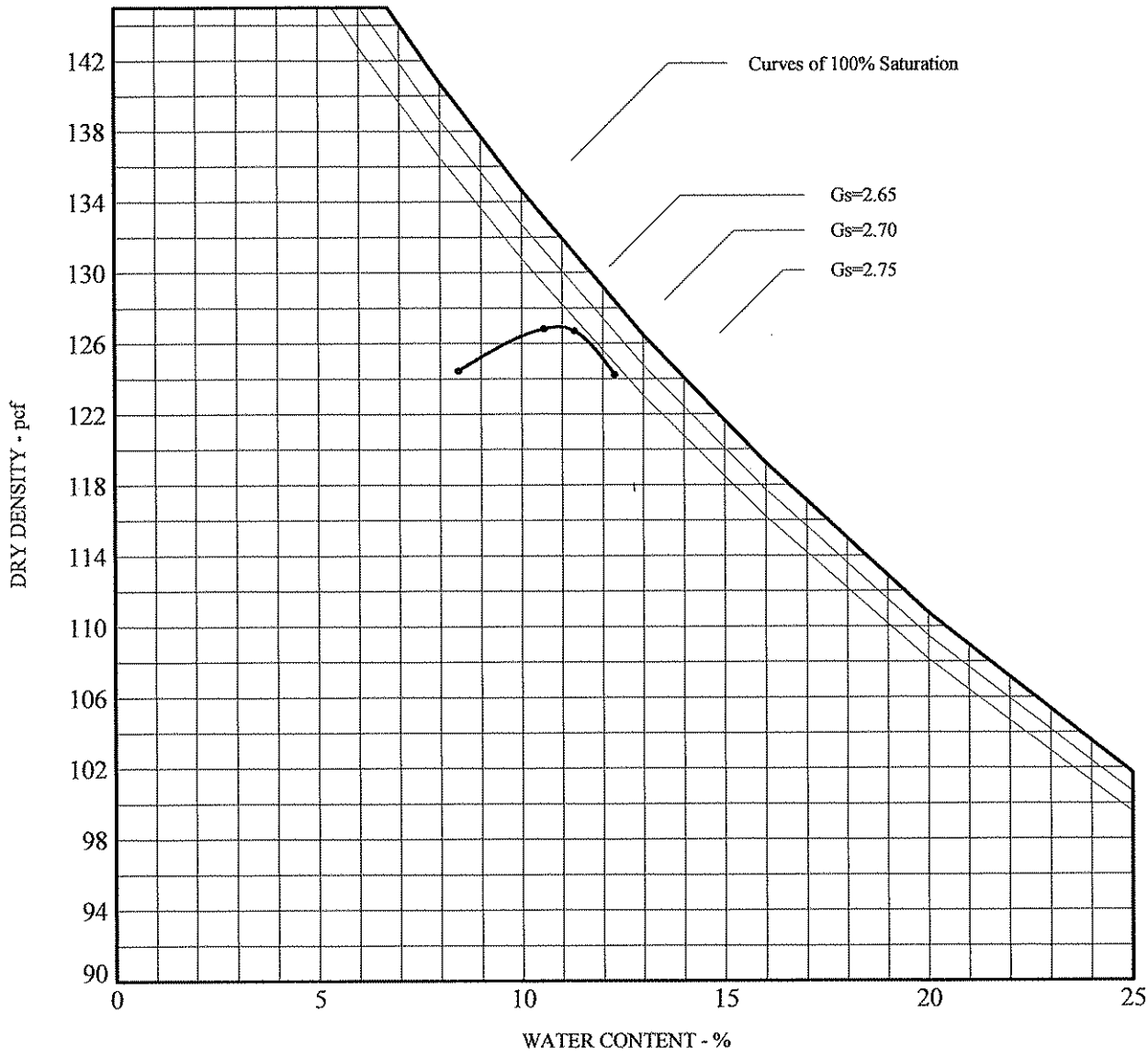
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

MAXIMUM DENSITY

PLATE
B-7

COMPACTION TELEMED.GPJ KA_RDLND.GDT 4/27/07



TEST DESCRIPTION
TEST METHOD: 1557A

Boring	**B-4**
Depth (feet)	**4**
Description	**Sandy Lean Clay**
Classification	**CL**
Maximum Dry Density (pcf)	**127.0**
Optimum Water Content (%)	**11.0**

KLEINFELDER

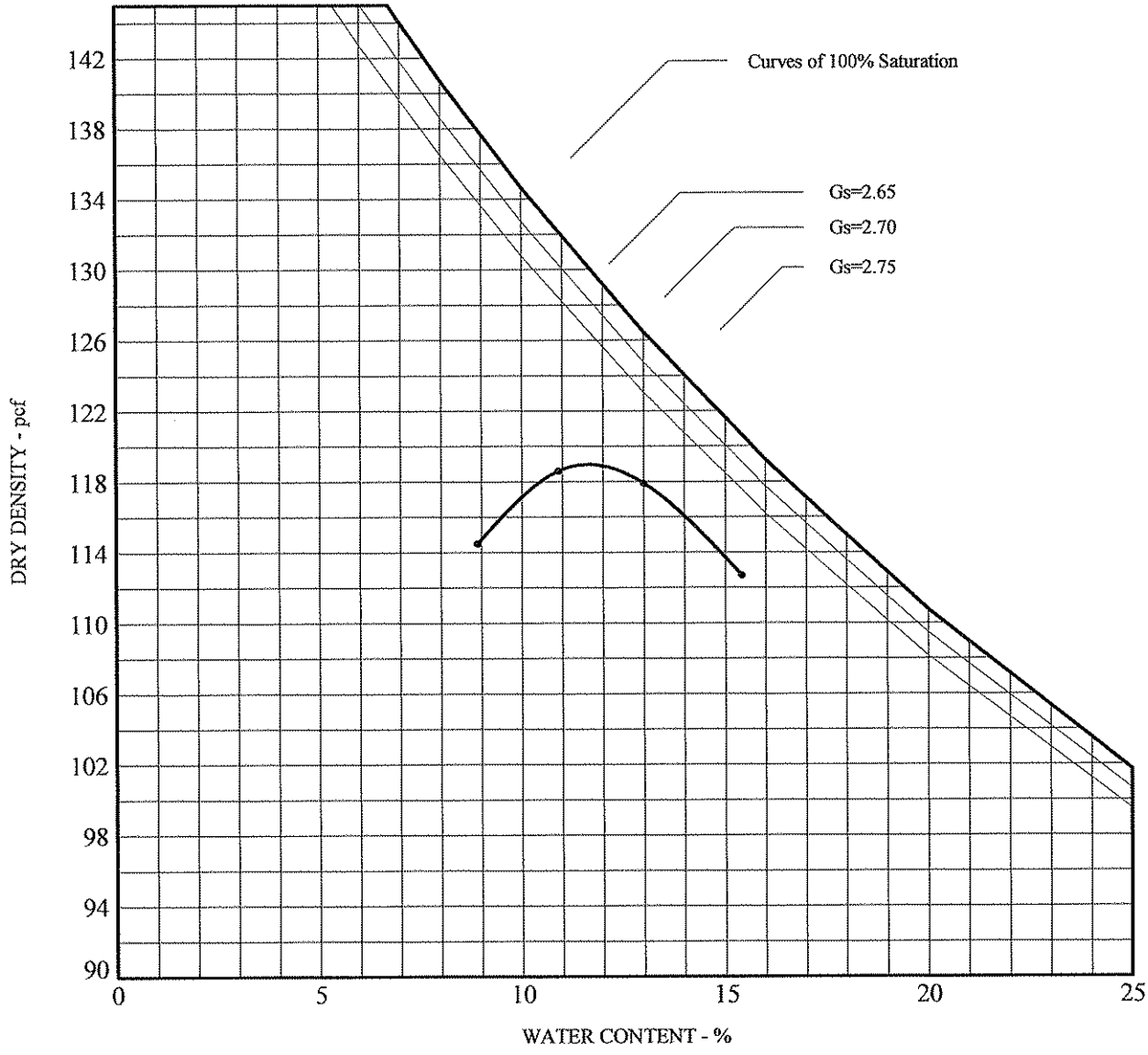
PROJECT NO. 82780

TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

MAXIMUM DENSITY

PLATE
B-8

COMPACTION TELEMED.GPJ KA RDLND.GDT 4/29/07



TEST DESCRIPTION
TEST METHOD: 1557A

Boring	**B-6**
Depth (feet)	**4**
Description	**Sandy Clay**
Classification	**CL**
Maximum Dry Density (pcf)	**119.5**
Optimum Water Content (%)	**12.0**

KLEINFELDER

PROJECT NO. 82780

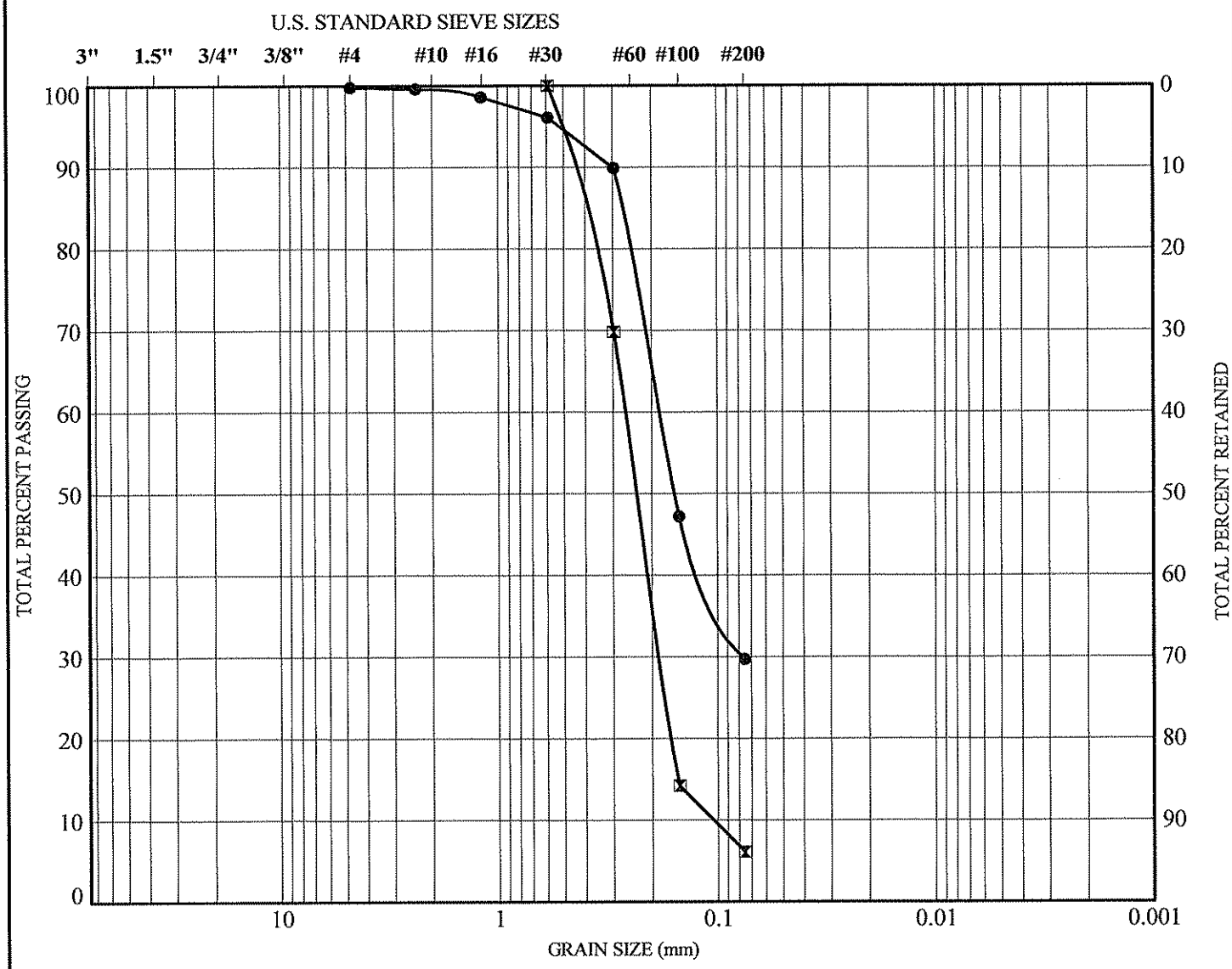
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

MAXIMUM DENSITY

PLATE
B-9

COMPACTION TELEMED.GPJ KA_RDLND.GDT 4/27/07

SIEVE ANALYSIS	HYDROMETER



GRAVEL		SAND			SILT	CLAY
coarse	fine	coarse	medium	fine		

Symbol	Boring	Depth (ft)	Description	Classification
●	B-1	6	Silty Sand	SM
⊠	B-1	16	Poorly Graded Sand	SP

GRAIN SIZE TELEMED.GPJ KA RDLND.GDT 4/27/07

KLEINFELDER

PROJECT NO. 82780

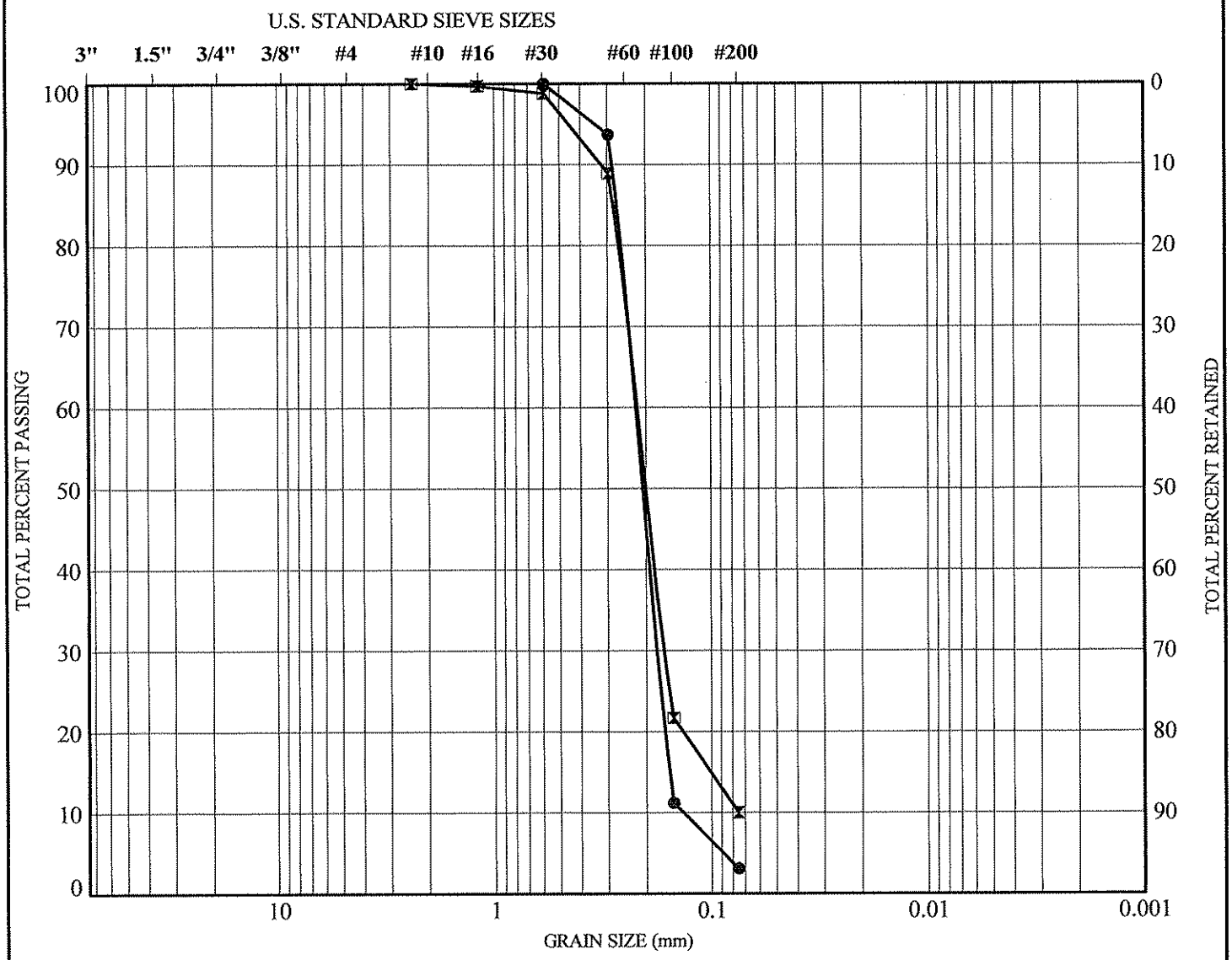
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

GRAIN SIZE DISTRIBUTION

PLATE

B-10

SIEVE ANALYSIS	HYDROMETER



GRAVEL		SAND			SILT	CLAY
coarse	fine	coarse	medium	fine		

Symbol	Boring	Depth (ft)	Description	Classification
●	B-2	16	Poorly Graded Sand	SP
⊠	B-3	8	Poorly Graded Sand with Silt	SP-SM

GRAIN SIZE TELEMED.GPJ KA RDLND.GDT 4/27/07

KLEINFELDER

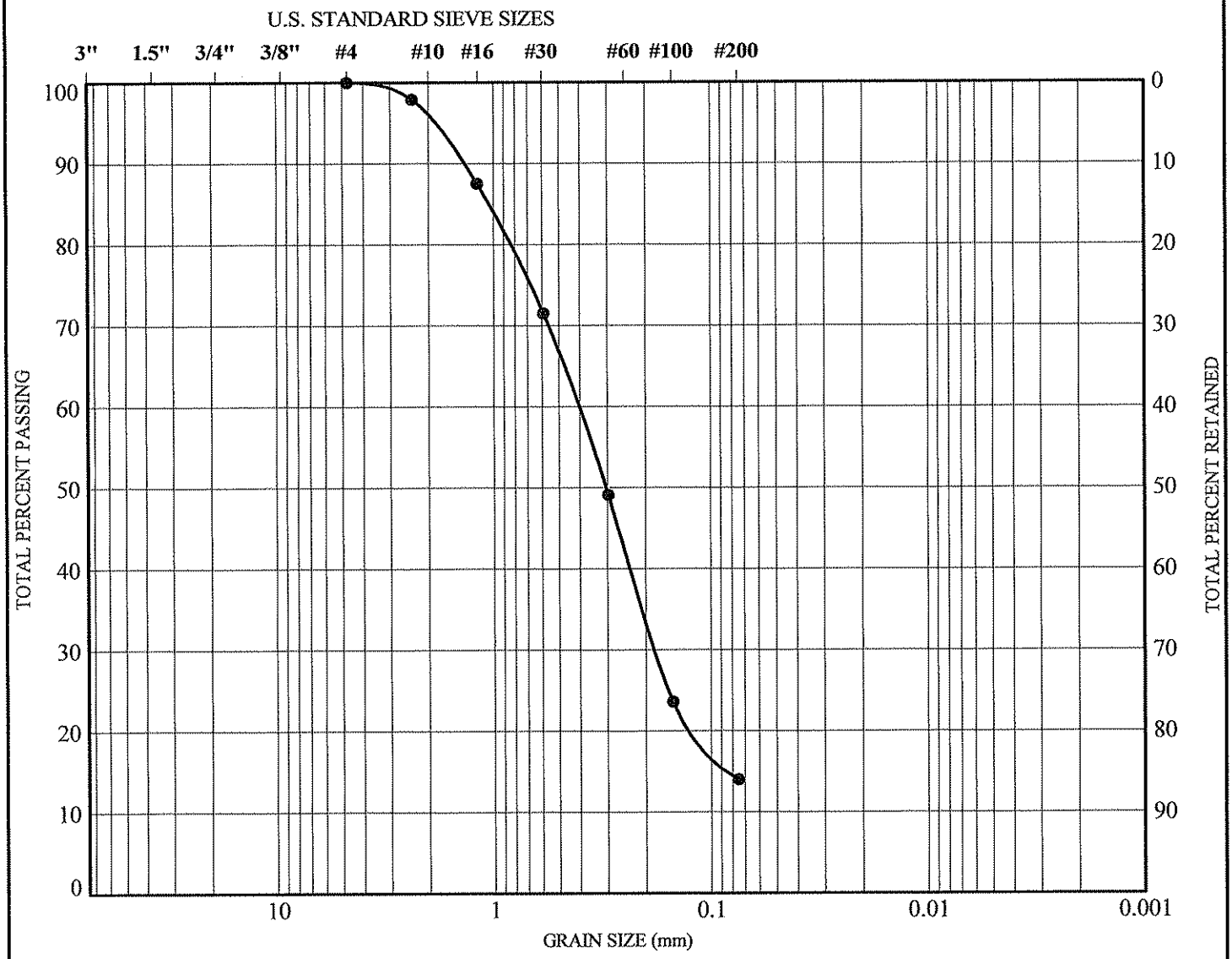
PROJECT NO. 82780

TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

GRAIN SIZE DISTRIBUTION

PLATE
B-11

SIEVE ANALYSIS	HYDROMETER



GRAVEL		SAND			SILT	CLAY
coarse	fine	coarse	medium	fine		

Symbol	Boring	Depth (ft)	Description	Classification
●	B-4	2	Silty Sand	SM

KLEINFELDER

PROJECT NO. 82780

TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

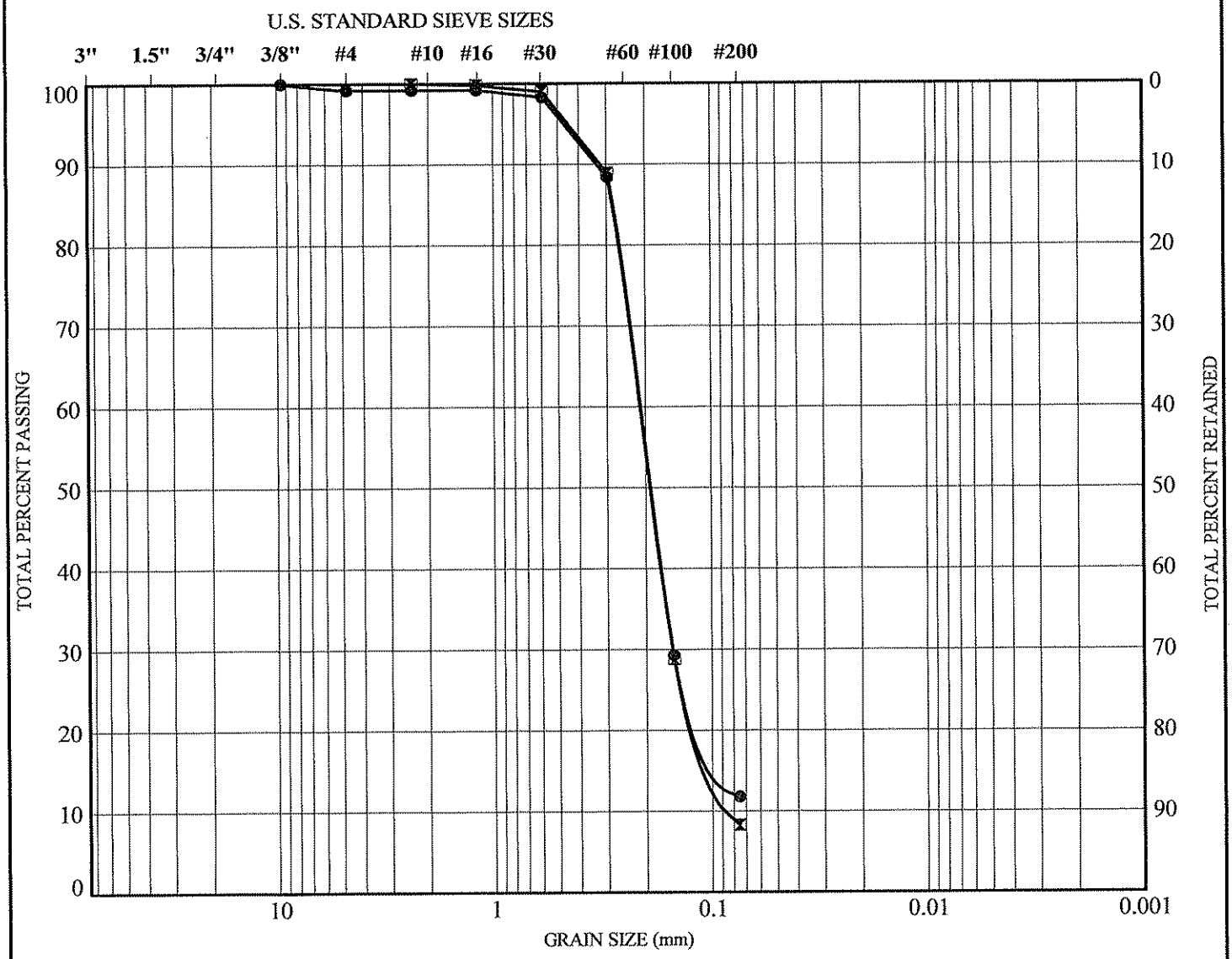
GRAIN SIZE DISTRIBUTION

PLATE

B-12

GRAIN SIZE TELEMED.GPJ KA RDLND.GDT 4/27/07

SIEVE ANALYSIS	HYDROMETER



GRAVEL		SAND			SILT	CLAY
coarse	fine	coarse	medium	fine		

Symbol	Boring	Depth (ft)	Description	Classification
●	B-5	4	Poorly Graded Sand with Silt	SP-SM
⊠	B-5	8	Poorly Graded Sand with Silt	SP-SM

GRAIN SIZE TELEMED.GPJ KA RDLND.GDT 4/27/07

KLEINFELDER

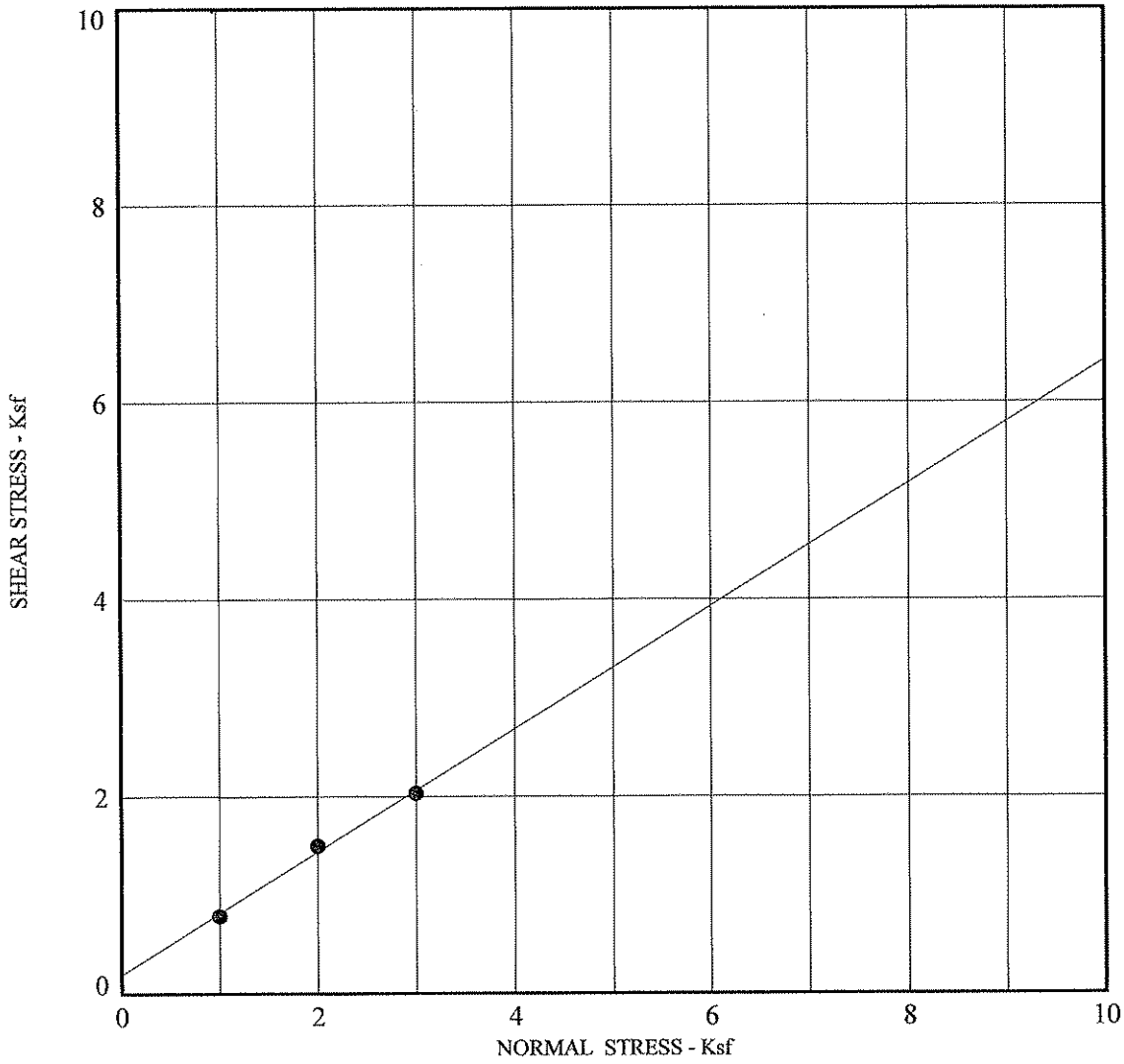
PROJECT NO. 82780

TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

GRAIN SIZE DISTRIBUTION

PLATE

B-13



Boring	B-5
Depth (ft)	6
Friction Angle - deg	32
Cohesion (Ksf)	0.20
Dry Density (pcf)	99
Moisture Content (%)	14.6
Description	Silty Sand
Classification	SM

KLEINFELDER

PROJECT NO. 82780

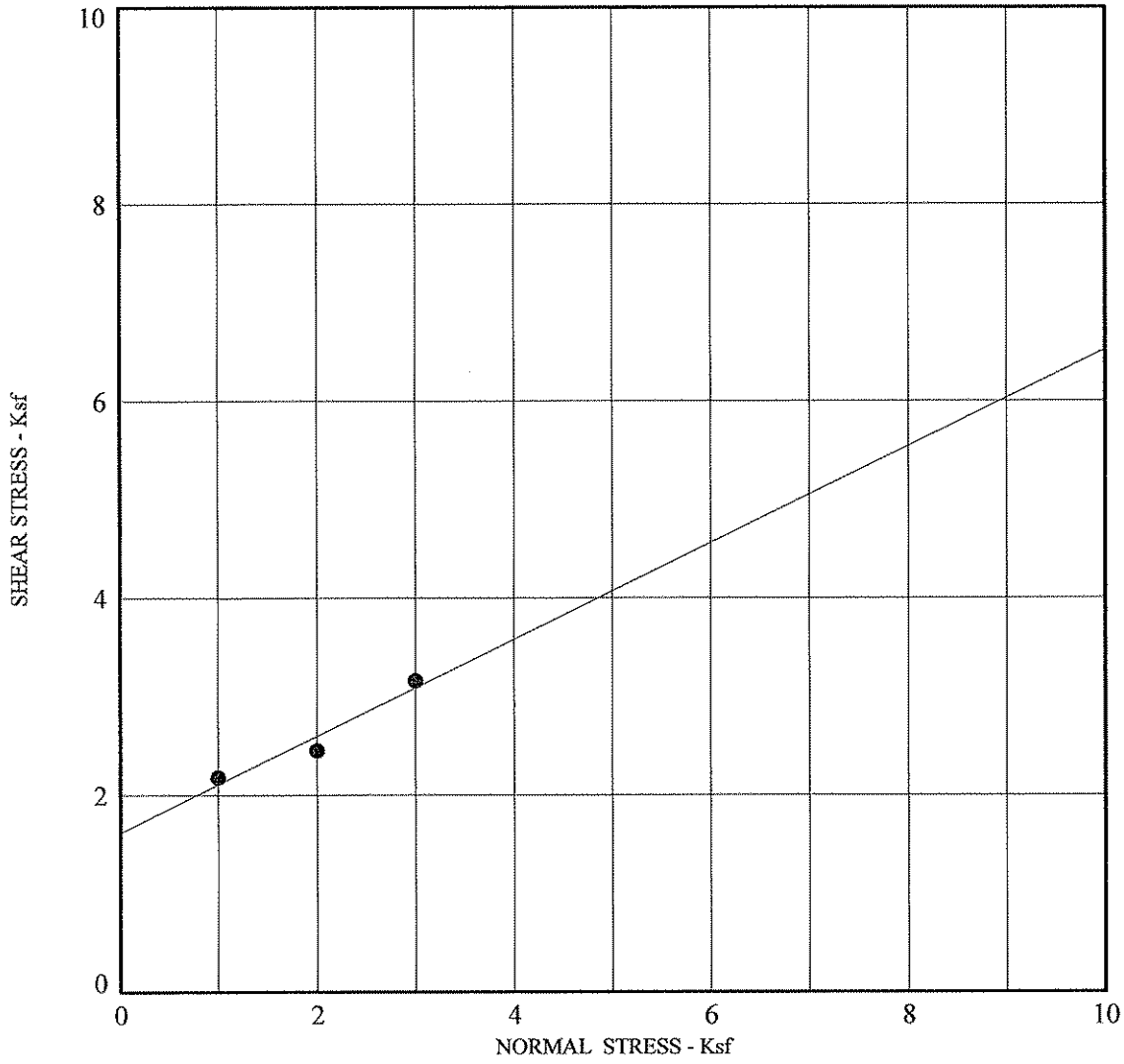
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

DIRECT SHEAR TEST

PLATE

B-14

DIRECT SHEAR TELEMED.GPJ KA RDLND.GDT 4/27/07



Boring	B-6
Depth (ft)	8
Friction Angle - deg	26
Cohesion (Ksf)	1.62
Dry Density (pcf)	111
Moisture Content (%)	16.8
Description	Clayey Sand/Sandy Clay Zones
Classification	SC

KLEINFELDER

PROJECT NO. 82780

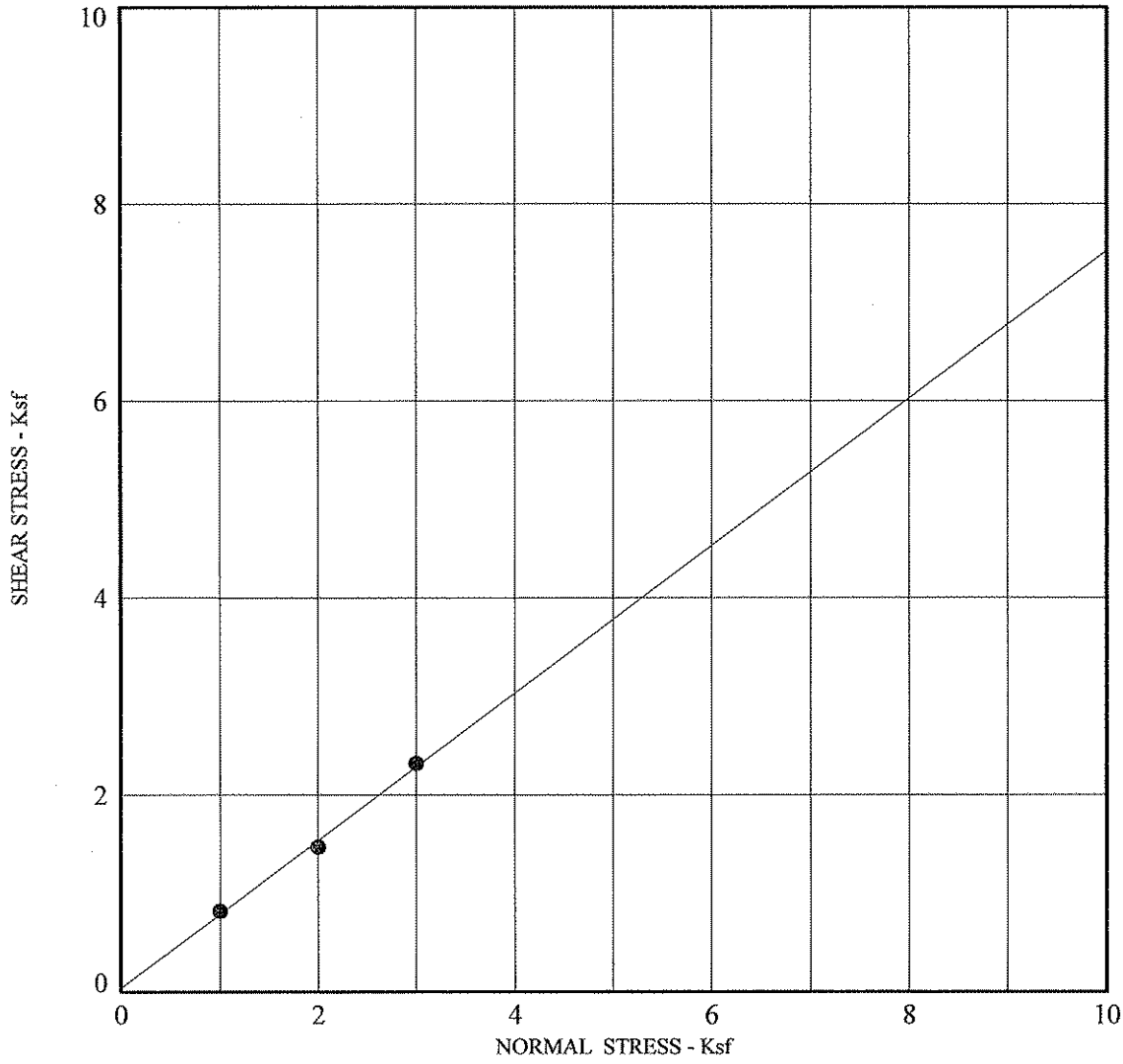
TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

DIRECT SHEAR TEST

PLATE

B-15

DIRECT SHEAR TELEMED.GPJ KA RDLND.GDT 4/27/07



Boring	B-6
Depth (ft)	16
Friction Angle - deg	37
Cohesion (Ksf)	0.04
Dry Density (pcf)	100
Moisture Content (%)	6.5
Description	Poorly Graded Sand
Classification	SP

KLEINFELDER

PROJECT NO. 82780

TELEMEDICINE BUILDING
Bison and Health Sciences Road
Irvine, California

DIRECT SHEAR TEST

PLATE

B-16

DIRECT SHEAR TELEMED.GPJ KA RDLND.GDT 4/27/07

APPENDIX C
ENVIRONMENTAL ANALYTICAL TESTING

APPENDIX C
ENVIRONMENTAL ANALYTICAL TESTING

SOIL SAMPLING

A total of three discrete soil samples were collected from three boring locations at the site, as shown on the Environmental Boring Location Map enclosed at the end of this Appendix. A soil sample was collected from Boring B-1 at a depth of 1.5 feet below ground surface (bgs), from Boring B-2 at a depth of 1.0 feet bgs and from Boring B-3 at a depth of 1.0 feet bgs. The borings were located in landscaped areas, including a grassy area and a rose garden. Each soil sample was collected from the upper, artificial fill layer encountered in each boring. Odors and/or visual signs of chemical impact were not observed while collecting the three soil samples.

Soil samples were collected with a pre-cleaned hand auger by discharging the soil directly from the cutter head of the hand auger into an unpreserved 4-ounce glass-sampling jar. In addition, a portion of each soil sample was placed in pre-preserved volatile organic analysis (VOA) vials in accordance with United States Environmental Protection Agency (US EPA) Method 5035. Soil from each sample interval was also placed into a re-sealable plastic bag, and then screened for the presence of total volatile organic compounds (VOCs) with a photo-ionization detector (PID) approximately 30 minutes after sample collection. Borings were backfilled with native soil after completion of the sampling.

Hand auger equipment was decontaminated prior to use at each sampling location. The soil samples were stored in a cooler with ice and transported, under chain-of-custody, to Enviro-Chem, Inc., a California Division of Laboratory Science, Environmental Laboratory Accreditation Program-Accredited Laboratory, for analysis.

LABORATORY ANALYSES

The three soil samples were analyzed for California Code of Regulations (CCR) Title 22 Metals using US EPA Methods 6010B/7471A, total petroleum hydrocarbons (TPH) with carbon chain identification using US EPA Method 8015B, and VOCs using US EPA Method 8260B.

ANALYTICAL LABORATORY RESULTS

Eight metals (barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc) were detected in each of the three soil samples (cobalt and lead were not detected in Boring B-3). The detected metals are naturally occurring in many California soils. As such, the detected metal concentrations were initially compared to reported background concentrations of metals in California soils (Bradford et al., 1996). None of the detected metals exceeded the background concentrations. Table 1 presents a summary of the metals analytical data.

Each metal concentration detected in the three samples was also compared to its CCR Title 22 Total Threshold Limit Concentration (TTLC), ten times its CCR Title 22 Soluble Threshold Limit Concentration (STLC), and (for chromium only) 20 times its 40 Code of Federal Regulations (CFR) Toxicity Characteristic Leaching Procedure (TCLP) Limit. These values are listed in the attached Enviro-Chem, Inc. analytical laboratory report. If a TTLC is exceeded in a waste, that material is defined as a California hazardous waste by CCR Title 22. Ten times the STLC and 20 times the TCLP are industry-accepted screening levels for a metal reported as a total concentration, above which a separate assessment of the soluble metal is warranted. If a waste is analyzed for a soluble metal and the result exceeds its STLC or TCLP, that material is defined as a California hazardous waste by CCR Title 22 standards. The metal concentrations detected in the three samples do not exceed the TTLCs, 10 times the STLCs, or 20 times the TCLP.

US EPA Region IX has published Preliminary Remediation Goals (PRGs) for residential and industrial soils (US EPA, 2004). These soil screening levels combine toxicity values with standard exposure factors to estimate contaminant concentrations in environmental media (soil, air, and water) that are protective of human health over a lifetime. The exceedance of a PRG suggests that further evaluation of the potential risks that may be posed by site contaminants is appropriate. The PRGs may be used to screen pollutants in environmental media and evaluate the need for further assessment. Kleinfelder's review of the detected metal concentrations in the three samples indicates all concentrations are below the Residential PRG. It should be noted that the Residential PRGs for arsenic is lower than its analytical detection limit.

However, US EPA has acknowledged that the arsenic PRG concentrations may be exceeded by naturally-occurring background levels in southern California soils, and as previously discussed the detected arsenic concentrations do not exceed California background levels.

Concentrations of TPH and VOCs above the laboratory practical quantitation limits (PQLs) were not detected in the three soil samples.

CONCLUSIONS

Based on the analytical results of three soil samples collected during this project, reported herein, soils represented by the samples do not require handling, transport, and/or disposal as California hazardous or Resource Conservation and Recovery Act (RCRA) hazardous wastes. TPH and VOCs were not detected in the samples. The CCR Title 22 Metals concentrations detected in the soil samples were below their respective Residential PRGs, and thus do not warrant further evaluation.

LIMITATIONS

Services performed by Kleinfelder have been performed in a manner consistent with the level of skill ordinarily exercised by members of our profession currently practicing in Southern California. No other representation, express or implied, and no warranty or guarantee is included or intended in this report.

The scope of services described here is not intended to be inclusive, to identify all potential concerns, or to eliminate the possibility of other environmental problems. Within current technology, no level of assessment can show conclusively that a property or its structures are completely free of hazardous substances. Therefore, Kleinfelder cannot offer a certification that the property is free of environmental liability. Kleinfelder will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials. Kleinfelder offers a range of investigative and engineering services to suit the varying needs of our clients. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help

understand and manage the degree of risk. Since such detailed services involve greater expense, our clients participate in determining the level of service which provides adequate information for their purposes at an acceptable level of risk.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance, but in no event later than one years from the date of the report. Land or facility use, on and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance

Table 1- Summary of Metals Analytical Results

	Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Cadmium (Cd)	Chromium Total (Cr)	Cobalt (Co)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Thallium (Tl)	Vanadium (V)	Zinc (Zn)
B-1 @ 1.5'	ND (1.0)	ND (0.3)	91.7	ND (0.5)	ND (0.5)	23.2	4.09	6.02	1.77	ND (0.1)	ND (5.0)	15.0	ND (1.0)	ND (1.0)	ND (1.0)	30.2	37.5
B-2 @ 1'	ND (1.0)	3.09	65.5	ND (0.5)	ND (0.5)	12.4	2.14	3.25	2.81	ND (0.1)	ND (5.0)	6.69	ND (1.0)	ND (1.0)	ND (1.0)	20.8	37.2
B-3 @ 1'	ND (1.0)	ND (0.3)	30.7	ND (0.5)	ND (0.5)	4.71	ND (1.0)	4.12	ND (0.5)	ND (0.1)	ND (5.0)	2.57	ND (1.0)	ND (1.0)	ND (1.0)	15.0	24.2
CA Mean [1]	0.60	3.5	509	1.28	0.36	122	14.9	28.7	23.9	0.26	1.3	57.0	0.058	0.8	0.56	112	149
TTLC [2]	500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
STLC [3]	15	5.0	100	0.75	1.0	560/5*	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
Res PRGs [4]	31	0.062	5,400	150	37	210	900	3,100	150	23	390	1,600	390	390	5.2	78	23,000
Ind PRGs [5]	410	0.25	67,000	1,900	450	450	1,900	41,000	NA	310	5,100	20,000	5,100	5,100	67	1,000	100,000

Table Notes:
[1] = *Background Concentrations of Trace and Major Elements in California Soils*, Bradford, G.R., Chang, A.C., Page, A.L., Bakhtar, D., Frampton, J.A., Wright, H., Division of Agriculture and Natural Resources, University of California, March 1996.
[2] = California Code of Regulations (CCR) Total Threshold Limit Concentration (TTLC). If TTLC values are exceeded in a waste, that material is defined as a hazardous waste by CCR Title 22.
[3] = Soluble Threshold Limit Concentration (STLC). If ten times the STLC value is exceeded in a waste, provided that the compound that is present in the waste is completely in its soluble form, that material is defined as a hazardous waste by CCR Title 22.
[4] = United States Environmental Protection Agency Region 9 Residential Preliminary Remediation Goals (PRGs). PRGs are human health-based goals used for site "screening".
[5] = S EPA Region 9 Industrial PRGs.
* = Must meet both the STLC limit of 560 milligrams per liter (mg/L) and US EPA Toxic Characteristic Leaching Procedure (TCLP) limit of 5 mg/L.
ND = Not detected at the practical quantitation limit indicated in parentheses.
B-8B-1.0 = Soil sample collected from location "B18" at a depth of 1.0 foot below ground surface.
Results in milligrams per kilogram (mg/kg).
Total Characteristic Leaching Procedure = TCLP

Table 2 – Summary of Total Petroleum Hydrocarbon
and Volatile Organic Compound Analytical Data

	TPH C4 – C10	TPH C11 – C22	TPH C23 - 35	VOCs
B-1 @ 1.5'	ND (10)	ND (10)	ND (50)	ND (0.005 – 0.020)
B-2 @ 1'	ND (10)	ND (10)	ND (50)	ND (0.005 – 0.020)
B-3 @ 1'	ND (10)	ND (10)	ND (50)	ND (0.005 – 0.020)

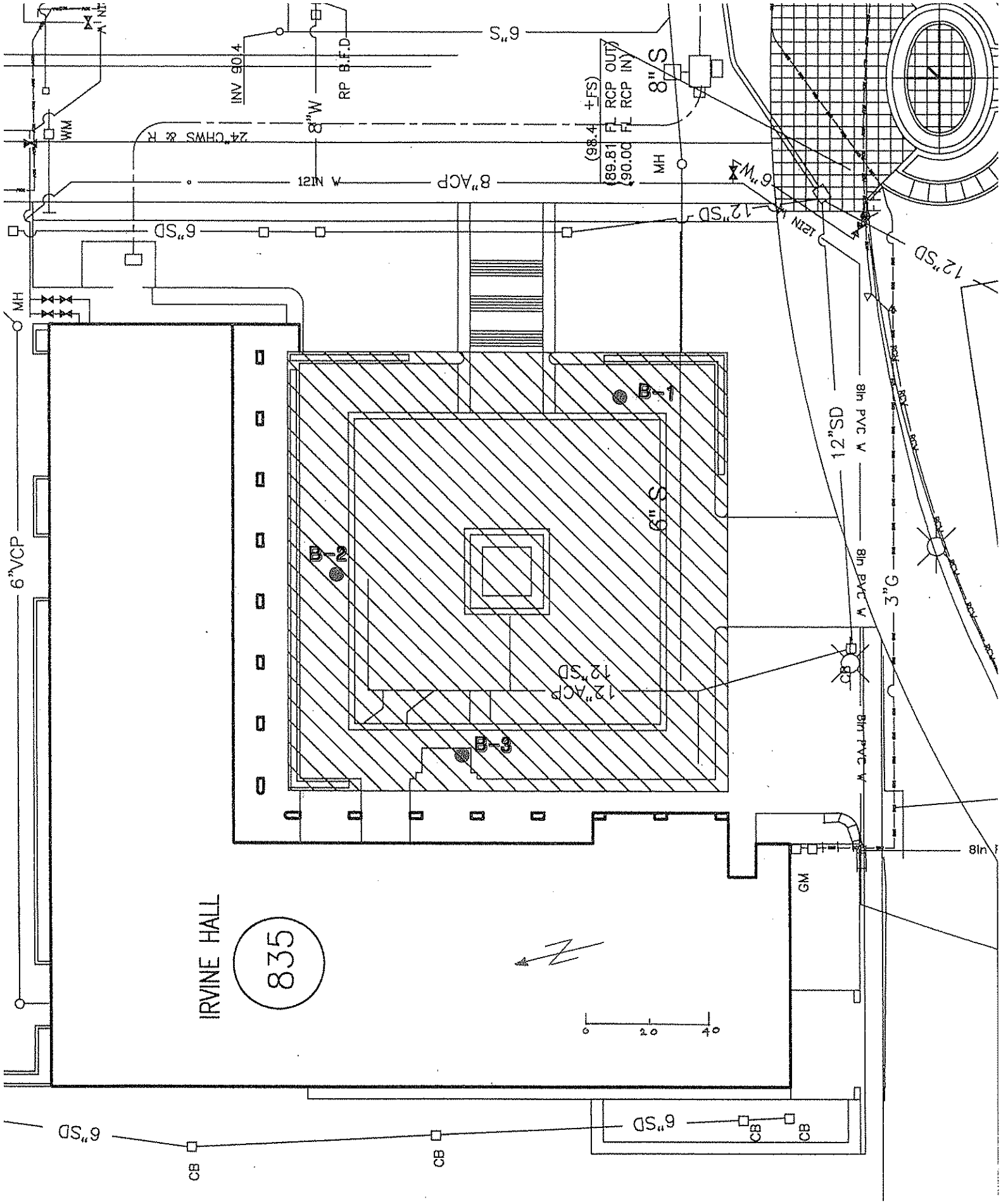
Table Notes:

TPH = Total petroleum hydrcarbons

VOCs = Volatile organic compounds

ND = Not detected at the practical quantitation limit indicated in parentheses.

B-8B-1.0 = Soil sample collected from location "B-8B" at a depth of 1.0 foot below ground surface. Results in milligrams per kilogram



ENVIRONMENTAL BORING LOCATION

APPENDIX C
TRAFFIC IMPACT STUDY

TELEMEDICINE/PRIME–LC FACILITY
TRAFFIC IMPACT STUDY
UNIVERSITY OF CALIFORNIA, IRVINE

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May 11, 2007

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SECTION 1.0
INTRODUCTION

The Telemedicine/PRIME – Latino Community (PRIME-LC) Facility Traffic Impact Study is an analysis of traffic-related impacts associated with implementation of the proposed 65,000 gross square-foot (GSF) building on the University of California, Irvine (UCI) campus. This study includes analysis of potential project-related traffic impacts on the surrounding circulation system, along with assumptions, methodology, findings, and recommendations.

1.1 PROJECT DESCRIPTION

1.1.1 PROJECT LOCATION

The project site is located within the UCI campus, which is located in central/coastal Orange County in the southern portion of the City of Irvine. Figure 1.1-1 shows the Regional Location Map. The UCI campus is bordered by the City of Irvine to the north and east and the City of Newport Beach to the south and west. Figure 1.1-2 shows the Vicinity Map. As shown in the Vicinity Map, the proposed project will be located within the Health Sciences Complex of the UCI campus and adjacent to building 835, Irvine Hall and building 839, Sprague Hall.

1.1.2 PROPOSED PROJECT

The proposed project consists of the construction of a new 65,000 GSF building for the Telemedicine/PRIME-LC program within the UCI's School of Medicine (SOM). Figure 1.1-2 shows a conceptual site plan for the 65,000 GSF building. The proposed project will have a footprint of approximately 17,000 square feet and will consist of four floors. The proposed project would provide additional floor space for instruction, research and offices for the Telemedicine/PRIME-LC program.

1.2 SCOPE OF ANALYSIS

This traffic study examines existing traffic conditions, analyzes future conditions and identifies potentially significant adverse traffic impacts associated with the proposed project and potential mitigation measures for improving traffic circulations. The anticipated completion and occupancy of the proposed project is 2009. For this analysis, year 2009 was used as the project opening year. The following scenarios were analyzed in the traffic study:

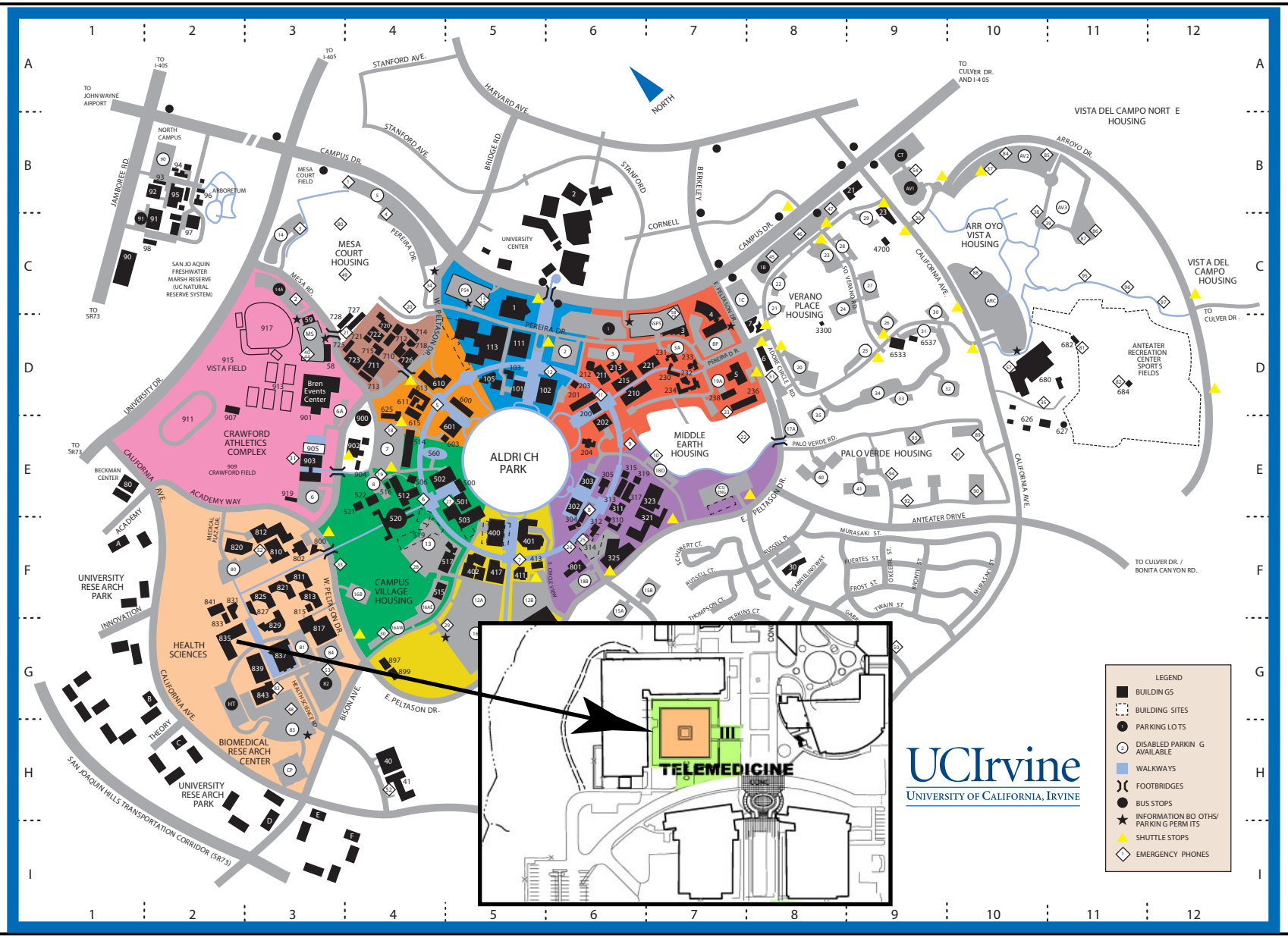
- 2007 existing conditions
- 2009 without the proposed project
- 2009 with the proposed project

The scope of this study included the following key components:

- field observations to document and field verify existing conditions
- review of previously completed traffic studies for projects in the vicinity
- forecasting of future traffic conditions

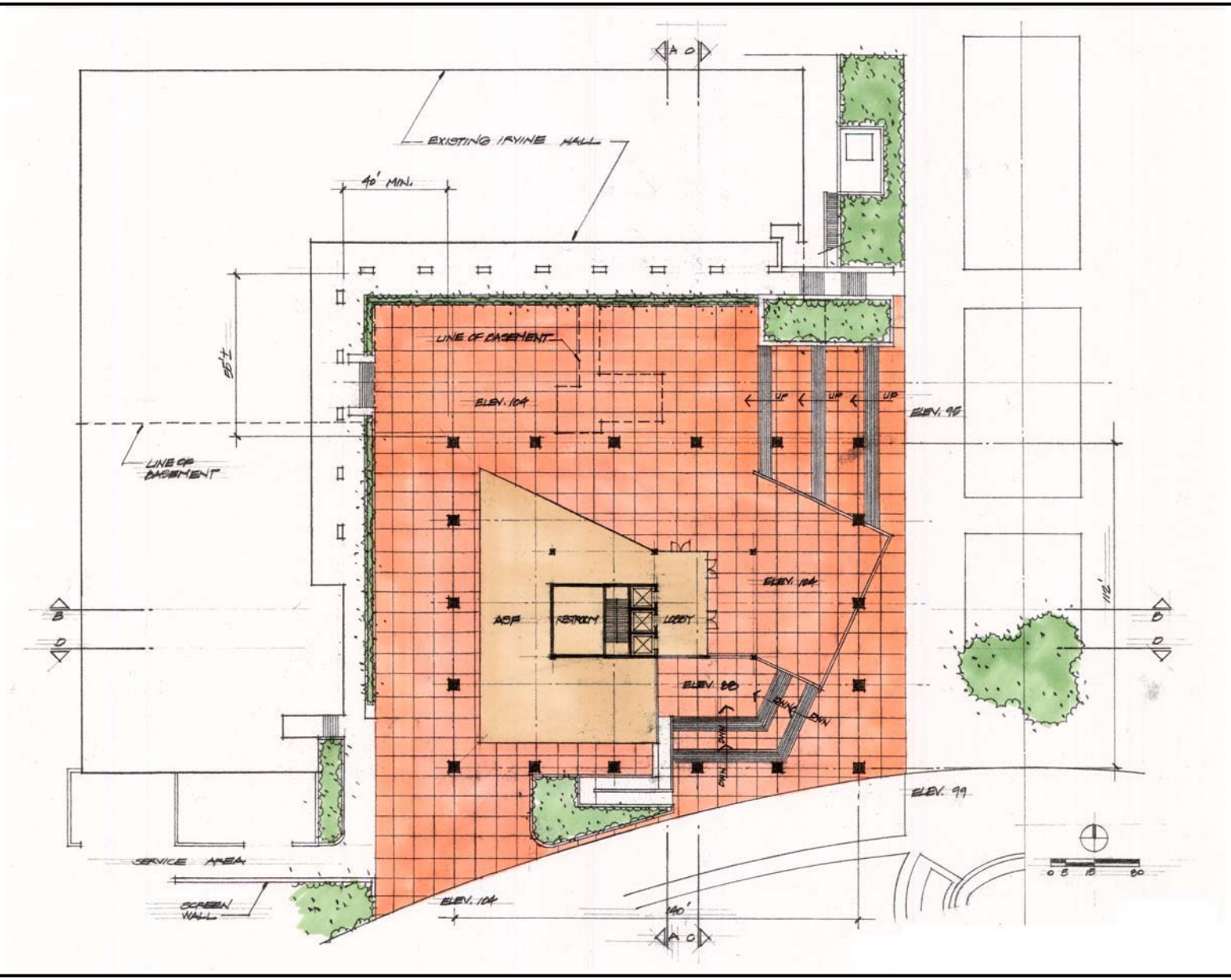
Source: P&D Consultants, (2007).

Figure 1.1-1
Regional Location Map



Source: P&D Consultants, (2007).

Figure 1.1-2
Vicinity Map



Source: P&D Consultants, (2007).

Figure 1.1-3
Concept Site Plan

- Level of Service (LOS) analysis
- improvement recommendations

The traffic study did not include a long-term year traffic analysis because the proposed project would be consistent with the current UCI Long Range Development Plan (LRDP) adopted by the Regents of the University of California (UC Regents) in 1989. The proposed project would add 65,000 GSF to the Health Sciences Complex, which is currently comprised of approximately 397,727 GSF. With implementation of the proposed project, the Health Sciences Complex would have 462,727 GSF of building spaces, which is within the 1,439,100 GSF identified for the Health Sciences Complex in the 1989 LRDP. The proposed project would not conflict with any goals or objectives of the 1989 LRDP.

In addition, UCI is currently preparing a comprehensive update to the LRDP (Draft 2007 LRDP) and associated LRDP Program Environmental Impact Report (EIR). The traffic analysis for the Draft 2007 LRDP EIR would analyze traffic impacts for a long-term scenario year at UCI buildout. The Draft 2007 LRDP and EIR is anticipated to be completed in the later part of 2007 and will be considered for certification/approval by UC Regents.

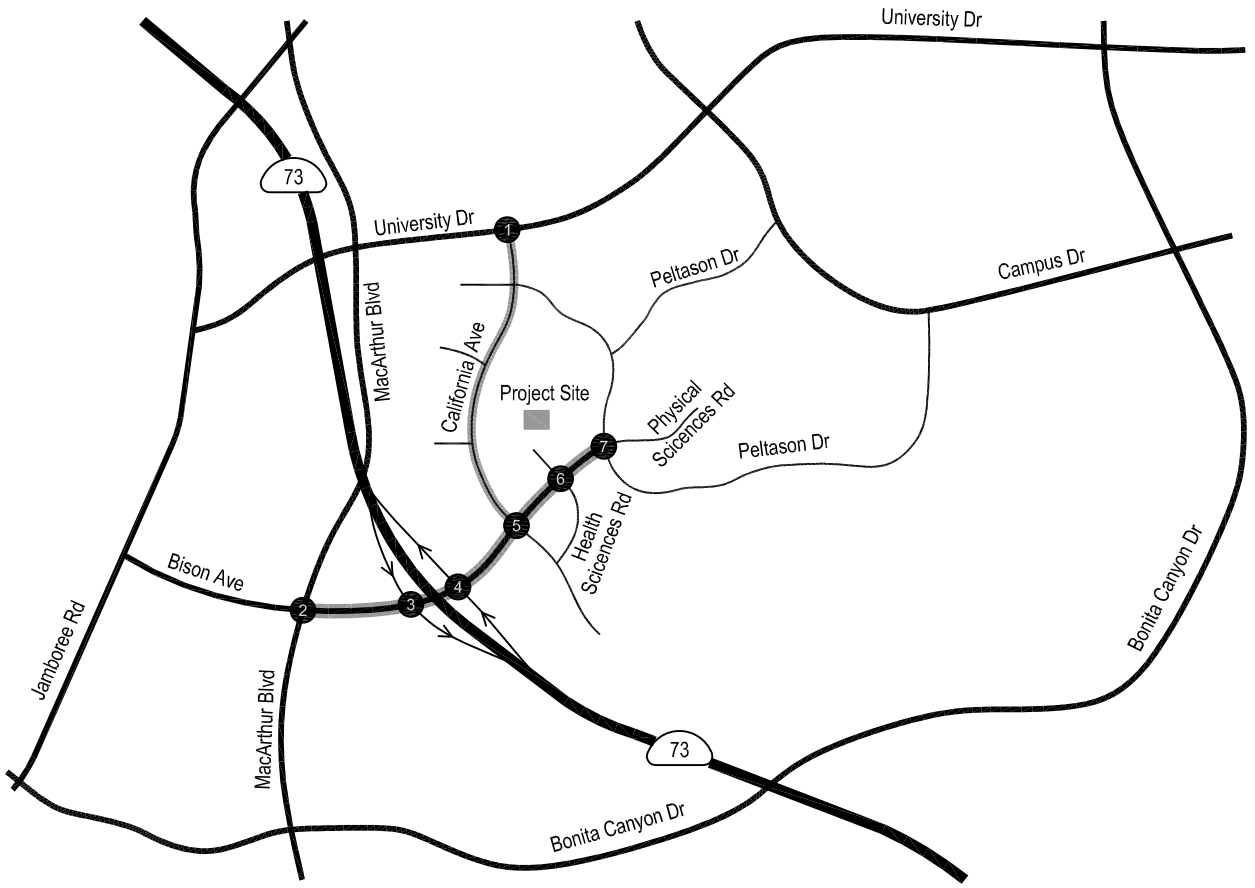
The traffic study did not conduct a Congestion Management Program (CMP) Traffic Analysis because the proposed project is exempt. A CMP Traffic Analysis is required when a proposed project generates more than 2,400 daily trips or more than 1,600 daily trips with direct access to a CMP Highway. The CMP Highways in the vicinity of the proposed project are State Route (SR) 73, Jamboree Road and MacArthur Boulevard. The proposed project does not direct access to a CMP Highway; and as discussed in Section 2.4, the proposed project would generate 740 daily trips, which is less than the minimum 2,400 daily trips required for a CMP Traffic Analysis. Therefore, the proposed project is exempt from a CMP Traffic Analysis.

1.3 STUDY AREA

Figure 1.3-1 shows the study area for the traffic impact analysis, including the road segments and intersections evaluated in this analysis. Tables 1.3-1 and 1.3-2 list the study road segments and intersections, respectively.

TABLE 1.3-1
STUDY ROAD SEGMENTS

Road	Segment Limits
California Avenue	University Drive to Bison Avenue
Bison Avenue	MacArthur Boulevard to SR 73 southbound ramps
Bison Avenue	SR 73 northbound ramps to California Avenue
Bison Avenue	California Avenue to Health Sciences Road
Bison Avenue	Health Sciences Road to Peltason Drive



Source: P&D Consultants (2007).

Figure 1.3-1
Study Road Segment and Intersections

TABLE 1.3-2
STUDY INTERSECTIONS

Index Code[1]	Intersection
1	California Avenue at University Drive
2	MacArthur Boulevard at Bison Avenue
3	SR 73 southbound ramps at Bison Avenue
4	SR 73 northbound ramps at Bison Avenue
5	California Avenue at Bison Avenue
6	Health Sciences Road at Bison Avenue
7	Peltason Drive at Bison Avenue/Physical Sciences Road

[1] The Index Code refers to the numbers used to identify the intersection on the circulation network and is used throughout the analysis in this Traffic Impact Study. These intersection locations are shown in Figure 1.3-1.

The study area did not include ramp segments because the traffic generated by the proposed project is less than the threshold of significance for a ramp segment. The threshold of significance for a ramp segment is three percent of the peak hour ramp capacity. A metered ramp with one lane has a capacity of 900 vehicles per hour, and a non-metered ramp with one lane has a capacity of 1,500 vehicles per hour. Three percent of the peak hour capacity for a metered ramp with one lane is 27 vehicles per hour. As shown in Section 2.6, the proposed project would generate a maximum of 13 vehicles during the peak hour on a ramp segment, which is less than the minimum of 27 vehicles per hour. Therefore, the study area did not include ramp segments.

1.4 REVIEW OF PREVIOUS REPORTS

As part of this study, the summary of findings, recommendations and mitigations of previously completed traffic studies in the project vicinity were reviewed. These studies include the following reports:

- Austin-Foust Associates, Inc., *UCI Main Campus – California Avenue Traffic Analysis*, 2006
- Austin-Foust Associates, Inc., *University of California, Irvine – Humanities Building Traffic Study*, 2006

SECTION 2.0
METHODOLOGY

This section describes the procedures and methodologies used to forecast project traffic and to analyze potential project impacts on the circulation system in the study area. Topics in this section include traffic forecasting assumptions, traffic counts, trip generation, trip distributions, traffic assignment, LOS, and signal warrant analyses.

2.1 ASSUMPTIONS

It was assumed that the ambient growth rate for the roads within the vicinity of UCI is three percent per year.

2.2 TRAFFIC COUNTS

P&D Consultants conducted traffic counts through a subcontract with Southland Car Counters. The detailed traffic counts are provided in Appendix A. The 24-hour (daily) machine counts were taken on Wednesday, April 4, 2007 at the following locations:

- California Avenue just north of Bison Avenue
- Bison Avenue just east of MacArthur Boulevard
- Bison Avenue just west of California Avenue
- Bison Avenue just east of California Avenue
- Bison Avenue just east of Health Sciences Road

Intersection turning counts were conducted during both the A.M. peak period of 7:00 A.M. to 9:00 A.M. and the P.M. peak period of 4:00 P.M. to 6:00 P.M. on Wednesday, April 4, 2007 for the following intersections:

- California Avenue at University Drive
- MacArthur Boulevard at Bison Avenue
- SR 73 southbound ramps at Bison Avenue
- SR 73 northbound ramps at Bison Avenue
- California Avenue at Bison Avenue
- Health Sciences Road at Bison Avenue
- Peltason Drive at Bison Avenue/Physical Sciences Road

2.3 FUTURE BACKGROUND TRAFFIC VOLUMES

Future background traffic volumes for year 2009 were calculated by applying an ambient growth rate of three percent per year to the existing 2007 traffic volumes.

2.4 PROJECT TRIP GENERATION

Project trip generation is defined as the number of trips that originate or terminate at a project site. The amount of traffic generated is a function of the extent and type of land use. Trip

generation is usually estimated using trip generation rates which indicate the amount of traffic generated per unit of land use. Trip generation rates for different land uses documented in the Institute of Transportation Engineers (ITE) *Trip Generation*[1] and related publications are typically used in traffic studies. Table 2.4-1 shows the trip generation rates for a University/College land use based on the number of students. It should be noted that this trip generation rate based on the number of students included all trip purposes made at the University/College land use including trips made by students, the support staff (faculty members and administrative employees), visitors, deliveries, etc….

TABLE 2.4-1
PROJECT TRIP GENERATION RATES

Land Use	ITE Code	Unit Size	Trip Generation Rates per Unit Size[1]								
			Daily			A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
University/College	550	STU[2]	1.19	1.19	2.38	0.17	0.04	0.21	0.06	0.15	0.21

Source: Institute of Transportation Engineers (ITE), *Trip Generation*, 7th Edition, 2003.
[1] The average trip generation rates from ITE *Trip Generation* are used. Trip generation rates are for weekdays. A.M. and P.M. rates are peak hour rates of adjacent street traffic.
[2] STU: students.

The proposed project would increase enrollment in the Telemedicine/PRIME-LC program by 40 students for a total of 60 students. The GSF to student ratio for the proposed 65,000 GSF building would be approximately 1,083 GSF per student (= 65,000 GSF / 60 students). However, the GSF to student ratio at UCI historically has been lower than the 1,083 GSF per student. Based on the UCI on-campus student enrollment in the 2005-06 academic year of 23,155 students and the total academic and support space of 4,836,000 GSF, the GSF to student ratio is approximately 209 GSF per student (= 4,836,000 GSF / 23,155 students). Therefore, the proposed 65,000 GSF building could support up to a maximum of 311 students (= 65,000 GSF / 209 GSF per student).

Table 2.4-2 shows the daily and A.M. and P.M. peak hour trip generations for the proposed project based on the trip generation rates listed in Table 2.4-1 and 311 students the proposed 65,000 GSF building could support. As shown in Table 2.4-2, the proposed project would generate 740 daily trips with 65 trips occurring during both the A.M. and P.M. peak hours.

TABLE 2.4-2
PROJECT TRIP GENERATION

Land Use	ITE Code	Size	Trip Generation								
			Daily			A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
University/College	550	311 STU[1]	370	370	740	53	12	65	19	46	65

Source: P&D Consultants (2007).
[1] STU: students.

[1] Institute of Transportation Engineers (ITE), *Trip Generation – 7th Edition*, 2003.

2.5 PROPOSED PROJECT TRIP DISTRIBUTION

Project trip distribution is defined as the general directions of project-related traffic on various road segments and intersections in the study area. Trip distributions for the proposed project were determined by examining the location of the proposed project in the region and surrounding land uses. Figure 2.5-1 shows the proposed trip distribution for the proposed project.

2.6 PROPOSED PROJECT TRIP ASSIGNMENT

Project trip assignment is defined as the specific routes or travel paths the project-related traffic will use based on the project trip distribution. The major factors affecting route selection are the minimum time path and minimum- distance path. Often, the minimum-time and distance paths are the same. When the two paths are different, the minimum time path will usually take precedence, assuming all other factors are equal. Project trips were assigned to the road system based on the results of trip distribution as determined in Section 2.5. The results of the project trip assignment are shown in Figures 2.6-1.

2.7 LEVEL OF SERVICE

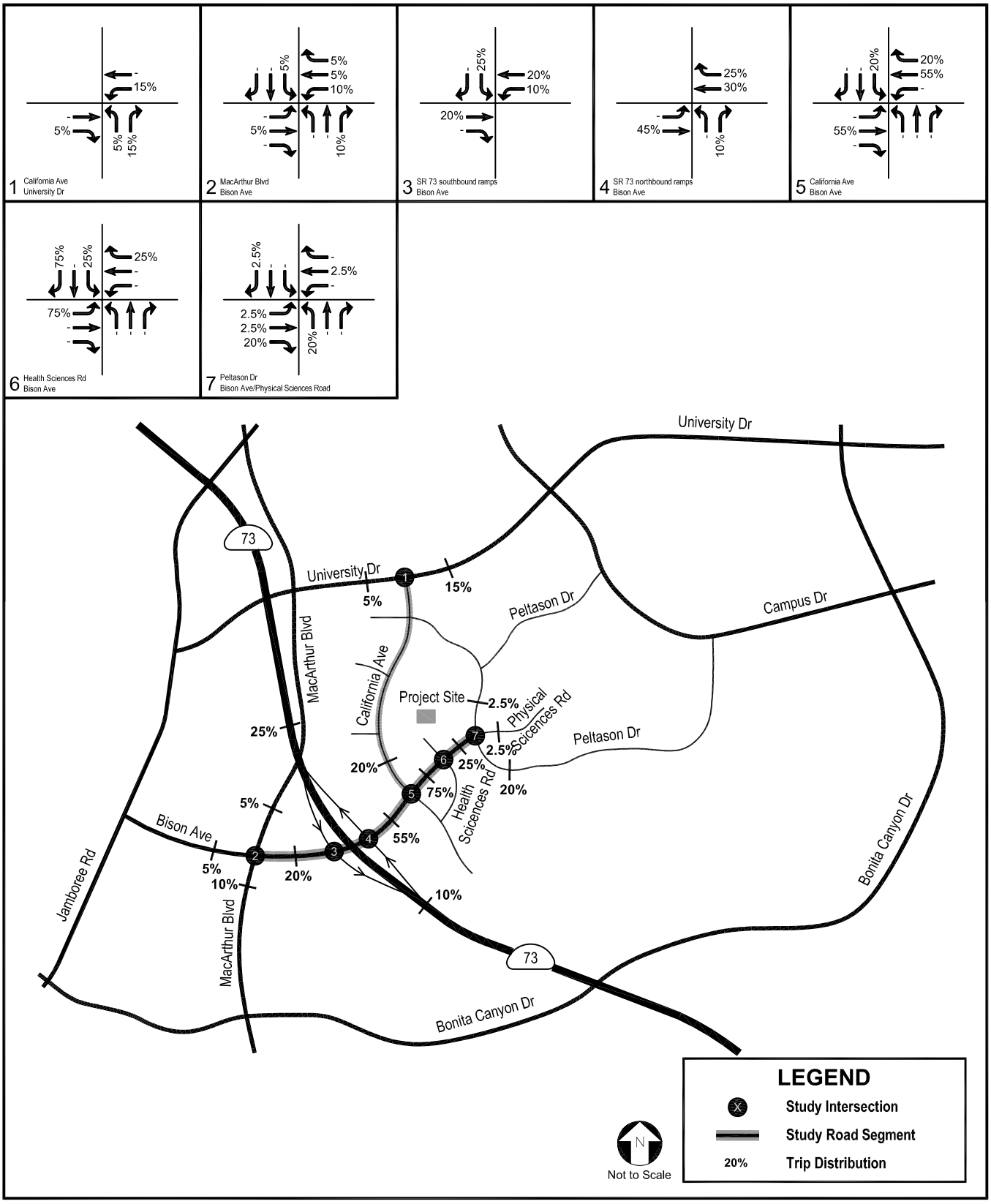
The concept of LOS was developed to evaluate the operating conditions of the circulation network. The Highway Capacity Manual (HCM) defines LOS as a qualitative measure which describes the operational conditions of a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience. LOS is rated A through F, with LOS A representing the best operating conditions and LOS F representing the worst. Specific criteria are used to define LOS for different types of facilities as discussed below. These criteria can also vary among cities and transportation agencies.

2.7.1 ROAD SEGMENTS

For planning purposes, the City of Irvine have established maximum daily road capacities corresponding to different LOS designations based on road classifications, as shown in Table 2.7-1. In this study, LOS for road segments was calculated by comparing the daily traffic volumes to the LOS E capacity (V/C = 1.0). This comparison yields a volume-to-capacity (V/C) ratio from which the LOS is determined.

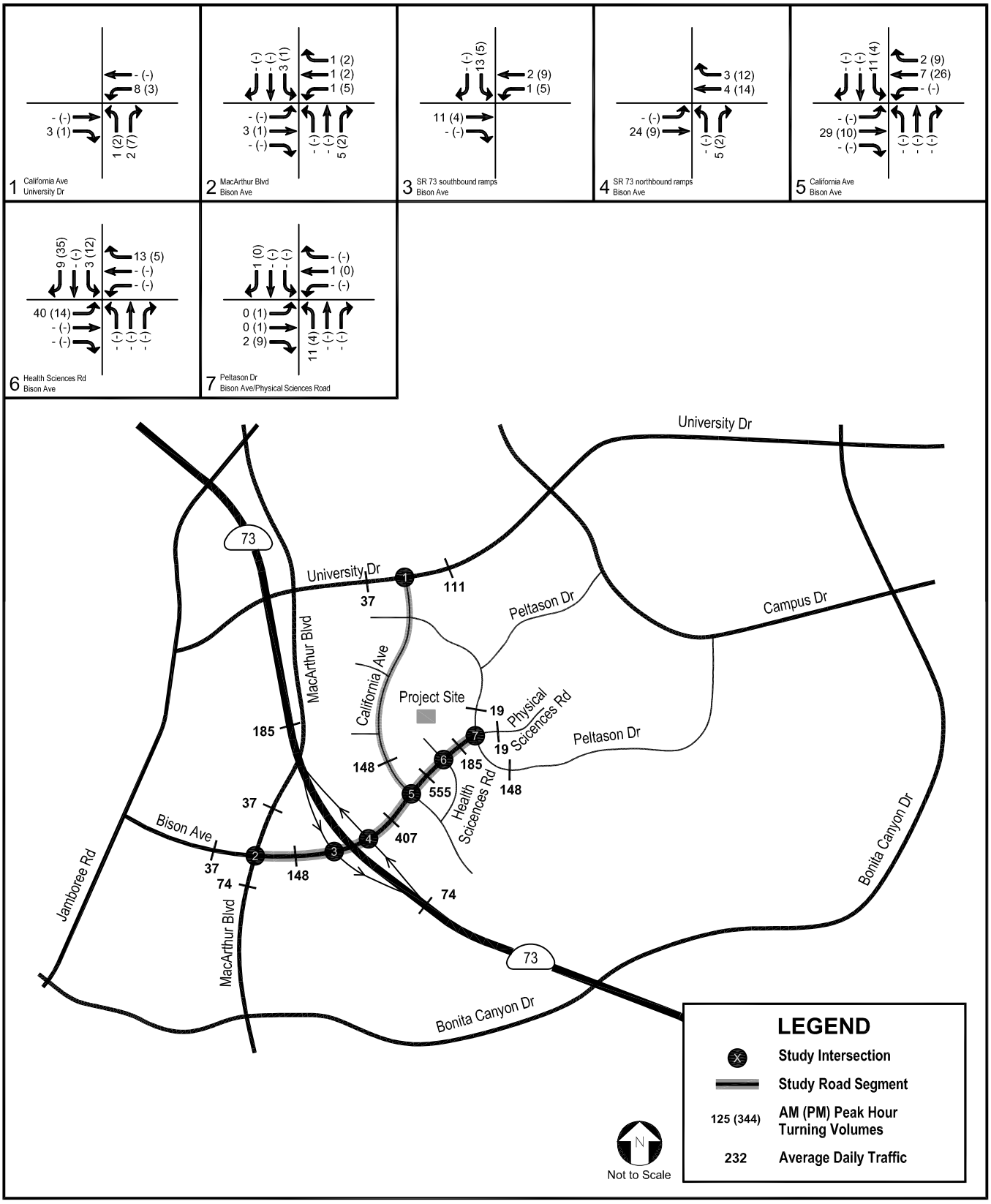
For peak hour operational purposes, the peak hour road segment capacity was determined by multiplying the number of mid-block lanes for each direction by a lane capacity of 1,600 vehicles per hour.[2] In this study, LOS for road segments during the peak hour was calculated by comparing the maximum directional peak hour traffic volumes to the LOS E capacity (V/C = 1.0). This comparison yields a V/C ratio from which the peak hour road segment LOS is determined.

[2] City of Irvine, *Traffic Impact Analysis Guidelines*, 2004.



Source: P&D Consultants (2007).

Figure 2.5-1
Proposed Project Trip Distribution



Source: P&D Consultants (2007).

Figure 2.6-1
Proposed Project Trip Assignment

TABLE 2.7-1
MAXIMUM AVERAGE DAILY TRAFFIC FOR ARTERIAL ROADS – CITY OF IRVINE

Road Classification	Lane Configuration	LOS A (V/C=0.6)	LOS B (V/C=0.7)	LOS C (V/C=0.8)	LOS D (V/C=0.9)	LOS E (V/C=1.0)	LOS F (V/C>1.0)
Major Arterial	8 Lanes Divided	43,200	50,400	57,600	64,800	72,000	> 72,000
Major Arterial	6 Lanes Divided	32,400	37,800	43,200	48,600	54,000	> 54,000
Primary Arterial	4 Lanes Divided	19,200	22,400	25,600	28,800	32,000	> 32,000
Secondary Arterial	4 Lanes Undivided	16,800	19,600	22,400	25,200	28,000	> 28,000
Commuter	2 Lanes Undivided	7,800	9,100	10,400	11,700	13,000	> 13,000
Commuter (Rural)	2 Lanes Undivided	10,800	12,600	14,400	16,200	10,800	> 10,800

Source: City of Irvine, *Traffic Impact Analysis Guidelines*, 2004.

2.7.2 INTERSECTIONS

Intersections were analyzed using the Intersection Capacity Utilization (ICU) methodology adopted by the City of Irvine. The ICU value is a quantitative ratio which compares intersection volume to capacity. Based on the ICU, intersection LOS is defined as shown in Table 2.7-2.

TABLE 2.7-2
LEVEL OF SERVICE CRITERIA – INTERSECTIONS

LOS	Description	ICU
A	At this LOS, traffic volumes are low and speed is not restricted by other vehicles. All signal cycles clear with no vehicles waiting through more than one original cycle.	0.00 to 0.60
B	At this LOS, traffic volumes begin to be affected by other traffic. Between one and 10 percent of the signal cycles have one or more vehicles which wait through more than one signal/cycle during the peak traffic periods.	0.61 to 0.70
C	At this LOS, operating speeds and maneuverability are closely controlled by other traffic. Between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.	0.71 to 0.80
D	At this LOS, traffic will operate at tolerable operating speeds, although with restricted maneuverability. More than 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic hours.	0.81 to 0.90
E	Traffic will experience restricted speeds. Vehicles will frequently have to wait through two or more cycles at signalized intersections, and any additional traffic will result in breakdown of the traffic carrying ability of the system.	0.91 to 1.00
F	Long queues of traffic, unstable flow, stoppages of long duration where traffic volumes and traffic speed can drop to zero. Traffic volumes will be less than the volume which occurs at LOS E.	Above 1.00

Source: City of Irvine, *General Plan – Circulation Element*, 2000.

The ICU analysis for this study used standard parameters currently followed by the City of Irvine was applied to the intersections.[3] These standard parameters include default saturation flow rates defined as the maximum number of vehicles that can pass through a lane per hour of green time

[3] City of Irvine, *Traffic Impact Analysis Guidelines*, 2004.

at a signalized intersection. The parameters also include clearance interval defined as a percentage of the overall intersection capacity utilized by vehicles to clear the intersection during the amber or yellow signal. The City of Irvine assumed an unstriped right-turn lane exists when the distance to the inside edge of the outside through lane was at least 19 feet and parking was prohibited during the peak period. The City of Irvine uses a default saturation flow rate of 1,700 vehicles per hour per lane (vphpl) for all lanes. A clearance interval of five percent was used for all intersections.

2.8 REGULATORY FRAMEWORK

UCI does not have any adopted performance criteria for traffic. Therefore, this traffic analysis used the City of Irvine's performance criteria to determine acceptable LOS and to identify significant adverse impacts to the circulation network.

2.8.1 LEVEL OF SERVICE STANDARDS

The City of Irvine has established LOS D or better as the acceptable LOS for road segments and intersections.[4] Any road segment in the City of Irvine operating at LOS E or F would require additional analysis based on the highest peak hour V/C ratio established for the peak direction. For this traffic study, if the road segment is operating at LOS E or F during the peak hour, then the road segment is considered to be deficient. Any intersection operating at LOS E or F was considered to be deficient.

2.8.2 THRESHOLDS OF SIGNIFICANT ADVERSE IMPACTS

A significant adverse traffic impact would occur in the City of Irvine if implementation of the proposed project would result in one or more of the following:

- The road segment to operate at an unacceptable LOS; increase in the daily V/C ratio of greater than 0.02 when rounded to the nearest hundredth; and the road segment operates at an unacceptable peak hour LOS.
- The intersection to operate at an unacceptable LOS, and an increase in the ICU of greater than 0.02 when rounded to the nearest hundredth.

2.9 SIGNAL WARRANT ANALYSIS

Traffic signal warrants used in this study to evaluate the need for signalization were based on the methodology described in the *California Manual on Uniform Traffic Control Devices (CA MUTCD)*.[5] The CA MUTCD provides eight warrants for evaluating the installation of traffic signals. Warrant 3, Part B (Peak Hour Warrant) is commonly used in conjunction with peak-hour intersection analysis. The Peak Hour Warrant is satisfied if the peak-hour volumes on the major (total for both approaches) and minor (highest approach) streets exceed the minimum threshold volumes prescribed by the warrant. The minimum threshold volumes depend on the lane configurations of the major and minor streets. As a general industry standard or practice,

[4] City of Irvine, *Traffic Impact Analysis Guidelines*, 2004.
[5] State of California, Department of Transportation, *California Manual on Uniform Traffic Control Devices*, 2006.

the minimum threshold volume is 100 vehicles per hour on the minor approach (with one lane per direction) if the major street has two or more lanes per direction and a peak-hour volume of at least 1,700 vehicles per hour in both directions.

SECTION 3.0
EXISTING CONDITIONS

This section describes the existing conditions in the study area, including major land uses, parking facilities, vehicular volumes, road segments and intersection operational characteristics, existing LOS, and signal warrant analyses.

3.1 EXISTING MAJOR LAND USES

Land uses immediately surrounding the proposed project consists of educational facilities dedicated to UCI.

3.2 EXISTING CIRCULATION NETWORK

The following describes the current road operational characteristics in the study area.

SR 73 is a Freeway north of Jamboree Road and is a Transportation Corridor south of Jamboree Road as classified on the Orange County Master Plan of Arterials Highways (MPAH). The Transportation Corridor portion of SR 73 requires a toll fee that varies based on the distance traveled. SR 73 has three lanes in each direction north of Bison Avenue. SR 73 has four southbound lanes and three northbound lanes south of Bison Avenue. The posted speed limit is 65 miles per hour (mph).

MacArthur Boulevard is an eight-lane north-south Major Arterial as classified on the MPAH. The road has a raised median and striped bike lanes on both sides. Parking is prohibited on MacArthur Boulevard. The posted speed limit is 55 mph.

California Avenue is a two-lane north-south Commuter. The road has no median and no striped bike lanes. Parking is prohibited on California Avenue. The posted speed limit is 40 mph.

University Drive is a four-lane east-west Major Arterial. The road has a raised median and striped bike lanes on both sides. Parking is prohibited on University Drive. The posted speed limit is 50 mph.

Bison Avenue is a six-lane east-west Major Arterial from MacArthur Boulevard to the SR 73 southbound ramps and a four-lane east-west Primary Arterial from the SR 73 southbound ramps to Peltason Drive. The road has a raised median and striped bike lanes on both sides. Parking is prohibited on Bison Avenue. The posted speed limit is 50 mph from MacArthur Boulevard to the SR 73 southbound ramps and 40 mph from the SR 73 southbound ramps to Peltason Drive.

Peltason Drive is a two-lane Commuter loop that primarily serves UCI. The road has a raised median and striped bike lanes on both sides. Parking is prohibited on Peltason Drive. The posted speed limit is 35 mph.

The following describes the current intersection lane configurations in the study area.

1. California Avenue at University Drive is a signalized three-legged intersection. Two exclusive left-turn lanes are provided on the northbound approach. One exclusive left-turn lane is provided on the westbound approach. One exclusive right-turn lane is provided on the northbound and eastbound approaches. Marked crosswalks are available only on the south and west legs of the intersection.

2. MacArthur Boulevard at Bison Avenue is a signalized four-legged intersection. Two exclusive left-turn lanes and one exclusive right-turn lane are provided on all approaches. The northbound and eastbound approaches consist of a free right-turn. The southbound right-turn lane has a protected right-turn phase that is overlapped with the eastbound left-turn phase. The westbound right-turn lane has a protected right-turn phase that is overlapped with the southbound left-turn phase. Marked crosswalks are available on all legs of the intersection.

3. SR 73 southbound ramps at Bison Avenue is a signalized four-legged intersection. Two exclusive left-turn lanes are provided on the southbound and westbound approaches. One exclusive right-turn lane is provided on the southbound and eastbound approaches. The southbound approach consists of a free right-turn. Marked crosswalks are available only on the north and south legs of the intersection.

4. SR 73 northbound ramps at Bison Avenue is a signalized four-legged intersection. One exclusive left-turn lane is provided on the eastbound approach. One exclusive right-turn lane is provided on the westbound approach. The northbound approach consists of one left-turn lane, one shared left-/right-turn lane and one right-turn lane. Marked crosswalks are available only on the north and south legs of the intersection.

5. California Avenue at Bison Avenue is a signalized four-legged intersection. One exclusive left-turn lane is provided on all approaches. One exclusive right-turn lane is provided on the southbound and eastbound approaches. An unstriped right-turn lane is assumed for the northbound approach because the distance measured to the outside through lane is 19 feet or greater. Marked crosswalks are available on all legs of the intersection.

6. Health Sciences Road at Bison Avenue is an unsignalized two-way stop-control (TWSC) intersection with the stop control on the northbound and southbound approaches. One exclusive left-turn lane is provided on the eastbound and westbound approaches. One exclusive right-turn lane is provided on the southbound approach. Marked crosswalks are not available at the intersection.

7. Peltason Drive at Bison Avenue/Physical Sciences Road is a signalized four-legged intersection. One exclusive left-turn lane is provided on the northbound and southbound approaches. One exclusive right-turn lane is provided on the eastbound and westbound approaches. An unstriped right-turn lane is assumed for the southbound approach because the distance measured to the outside through lane is 19 feet or greater. The eastbound right-turn lane has a protected right-turn phase that is overlapped with the northbound left-turn phase. Marked crosswalks are available on all legs of the intersection.

The existing circulation network is shown in Figure 3.2-1.

3.3 EXISTING VEHICULAR TRAFFIC VOLUMES

The existing traffic counts used in this study were taken in April 2007. Intersection turning movement counts were conducted at the study intersections during the A.M. peak period of 7:00 A.M. to 9:00 A.M. and the P.M. peak period of 4:00 P.M. to 6:00 P.M. Road segment daily traffic counts were taken at the study road segments during the same weekday. These traffic counts represent existing traffic conditions and are shown in Figure 3.3-1.

3.4 EXISTING TRANSIT SERVICES

OCTA is primary transit service for Orange County. However, OCTA does not provide transit service in the immediate vicinity of the proposed project. The Associated Students UCI (ASUCI) does provide shuttle services throughout the UCI campus and transfer locations with OCTA Routes 59, 79, 175, 178, 213, and 470.

3.5 EXISTING BIKE LANES

Existing bike lanes within the study area are located on Bison Avenue between MacArthur Boulevard and Peltason Drive. These bike lanes are classified as Class II Bikeways because the lanes are striped.

3.6 EXISTING LEVEL OF SERVICE

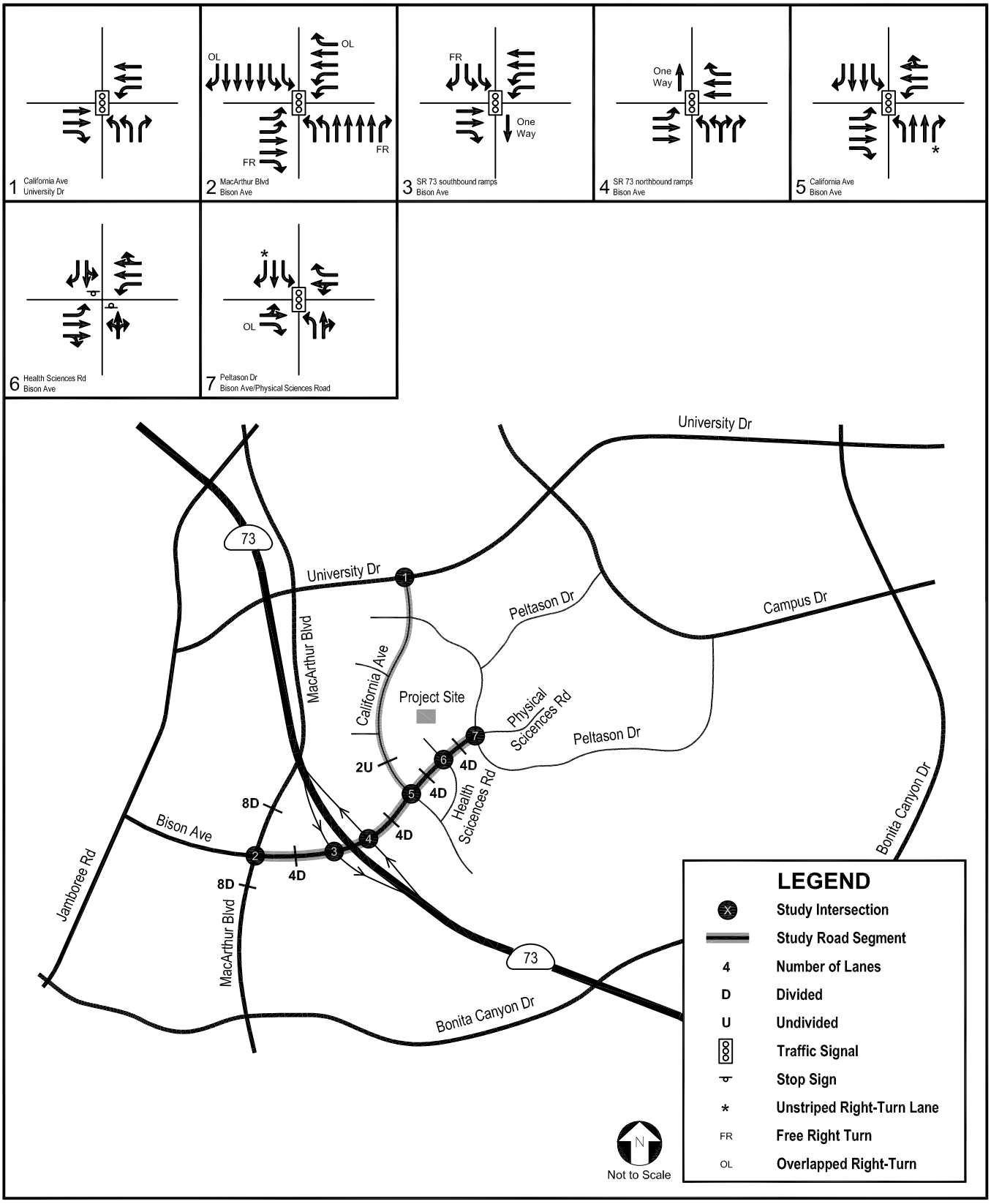
3.6.1 ROAD SEGMENTS

Table 3.6-1 summarizes the existing LOS for the study road segments based on the V/C ratio standards discussed in Section 2.7. As shown in Table 3.6-1, all study road segments are currently operating at LOS C or better. California Avenue between University Drive and Bison Avenue has the worst V/C ratio of 0.754.

TABLE 3.6-1
ROAD SEGMENT DAILY LEVELS OF SERVICE – EXISTING CONDITIONS

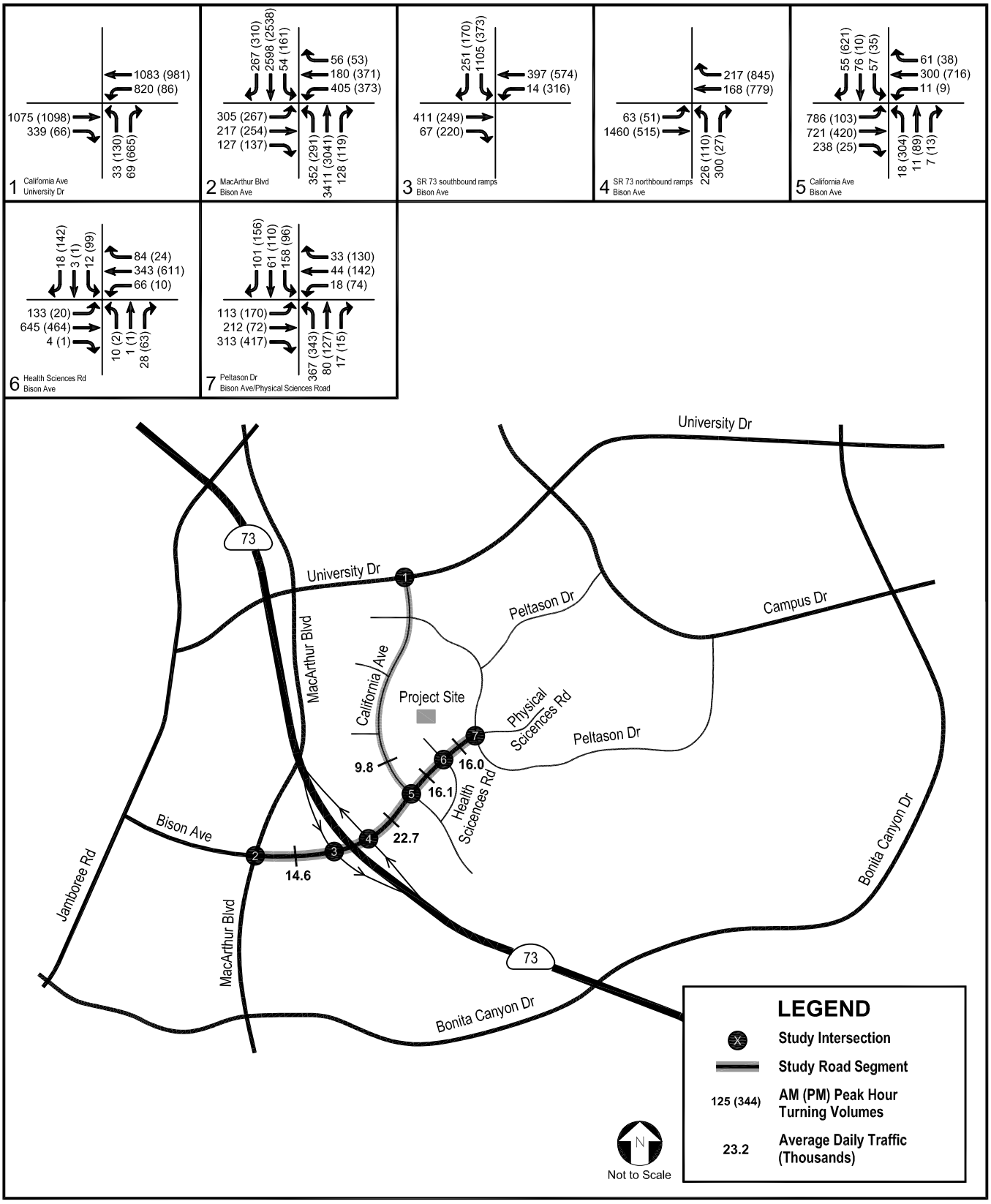
Road Segment	Section Limits	Street Classification	Lane Configuration	Daily Volume	Capacity	V/C	LOS
California Avenue	University Drive to Bison Avenue	Commuter	2 Undivided	9,803	13,000	0.754	C
Bison Avenue	MacArthur Boulevard to SR 73 southbound ramps	Major Arterial	6 Divided	14,589	54,000	0.270	A
	SR 73 northbound ramps to California Avenue	Primary Arterial	4 Divided	22,715	32,000	0.710	C
	California Avenue to Health Sciences Road	Primary Arterial	4 Divided	16,108	32,000	0.503	A
	Health Sciences Road to Peltason Drive	Primary Arterial	4 Divided	15,965	32,000	0.499	A

Source: P&D Consultants (2007).



Source: P&D Consultants (2007).

Figure 3.2-1
Circulation Network
Existing Conditions



Source: P&D Consultants (2007).

Figure 3.3-1
Traffic Volumes
Existing Conditions

3.6.2 INTERSECTIONS

Table 3.6-2 shows the existing LOS for the study intersections during the A.M. and P.M. peak hours based on the ICU methodology discussed in Section 2.7. As shown in Table 3.6-2, all study intersections are operating at acceptable LOS D or better. California Avenue at University Drive has the worst A.M. peak hour ICU of 0.889 and operates at LOS D. The detailed LOS calculation worksheets are included in Appendix B.

TABLE 3.6-2
INTERSECTION LEVELS OF SERVICE – EXISTING CONDITIONS

Index	Intersection	A.M. Peak Hour		P.M. Peak Hour	
		ICU	LOS	ICU	LOS
1	California Avenue at University Drive	0.889	D	0.815	D
2	MacArthur Boulevard at Bison Avenue	0.750	C	0.732	C
3	SR 73 southbound ramps at Bison Avenue	0.492	A	0.382	A
4	SR 73 northbound ramps at Bison Avenue	0.583	A	0.609	B
5	California Avenue at Bison Avenue	0.661	B	0.876	D
6	Health Sciences Road at Bison Avenue	0.310	A	0.346	A
7	Peltason Drive at Bison Avenue/Physical Sciences Road	0.553	A	0.613	B

Source: P&D Consultants (2007).

3.7 SIGNAL WARRANT ANALYSIS

The Peak Hour Warrant was used to analyze the need for a traffic signal for existing conditions at the unsignalized intersection of Health Sciences Road at Bison Avenue. The signal warrant analysis shows that a traffic signal is not warranted for the intersection of Health Sciences Road at Bison Avenue because of low traffic volumes on the minor approaches. The detailed signal warrant analyses are included in Appendix D.

SECTION 4.0
2009 TRAFFIC IMPACT ANALYSIS

This section describes the 2009 traffic impacts of the proposed project. This section includes: an analysis of traffic conditions without and with the project in 2009 by determining the LOS; significant adverse traffic impacts based on a comparison of these conditions; potential improvements to reduce potentially significant adverse traffic impacts to less than significant levels; and signal warrant analyses.

4.1 TRAFFIC CONDITIONS

No improvements to the circulation network will occur between 2007 and 2009. Future background traffic volumes for year 2009 were calculated by applying an ambient growth rate of three percent per year to existing 2007 traffic volumes. Figures 4.1-1 and 4.1-2 show the traffic volumes in the study area without and with the project scenarios in 2009, respectively.

4.2 TRAFFIC IMPACT ANALYSIS

Project-related traffic impacts were determined by comparing the road segment and intersection LOS without and with the proposed project. Significant adverse traffic impacts were identified based on the City of Irvine's criteria for significant adverse project impacts previously described in Section 2.8.

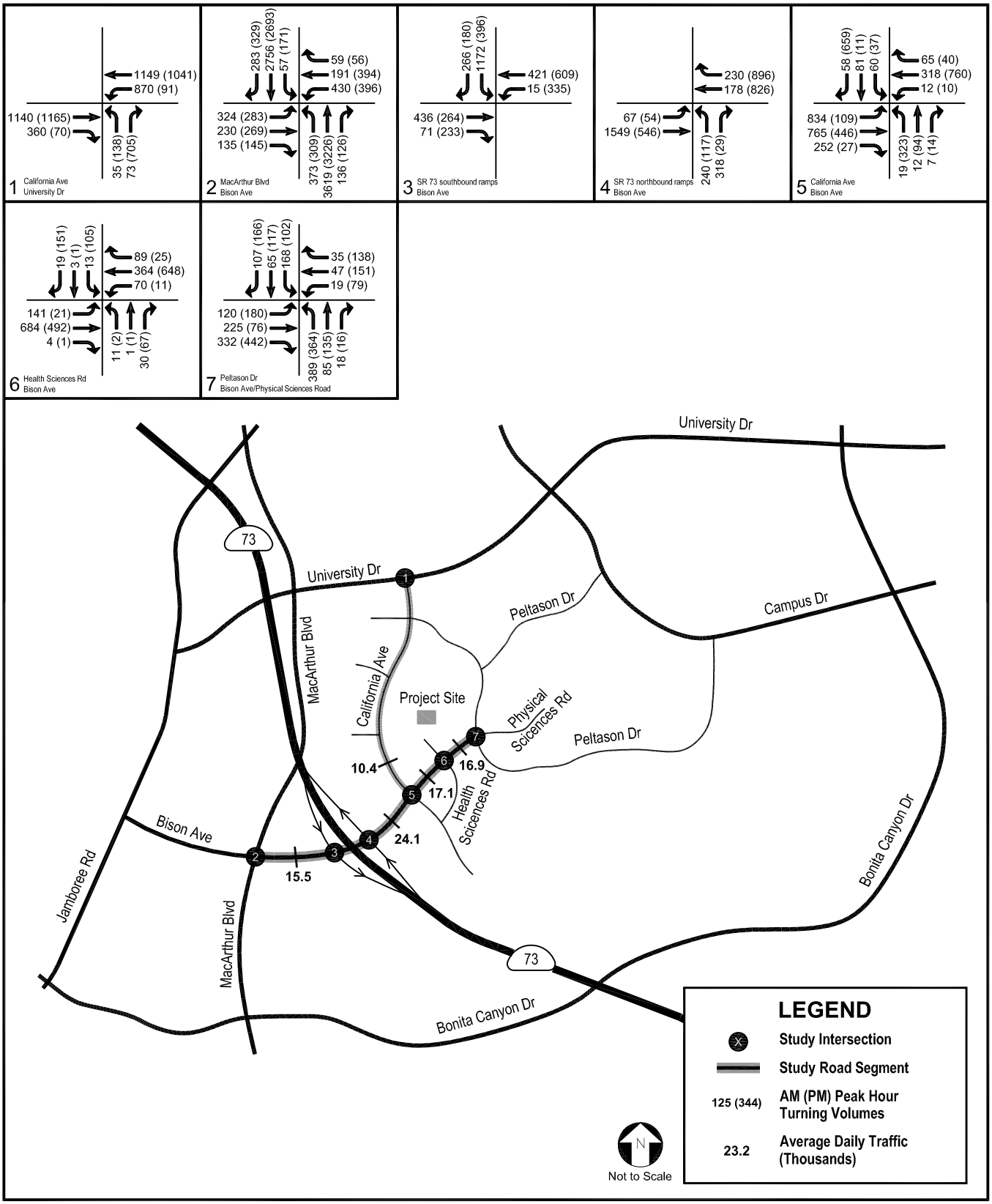
4.2.1 ROAD SEGMENTS

Table 4.2-1 summarizes the study road segment LOS in 2009 without the proposed project. As shown in Table 4.2-1, all study road segments will operate at acceptable LOS C or better. California Avenue between University Drive and Bison Avenue will have the worst V/C ratio of 0.800 and will operate at LOS C.

TABLE 4.2-1
ROAD SEGMENT DAILY LEVELS OF SERVICE – 2009 WITHOUT THE PROJECT[1]

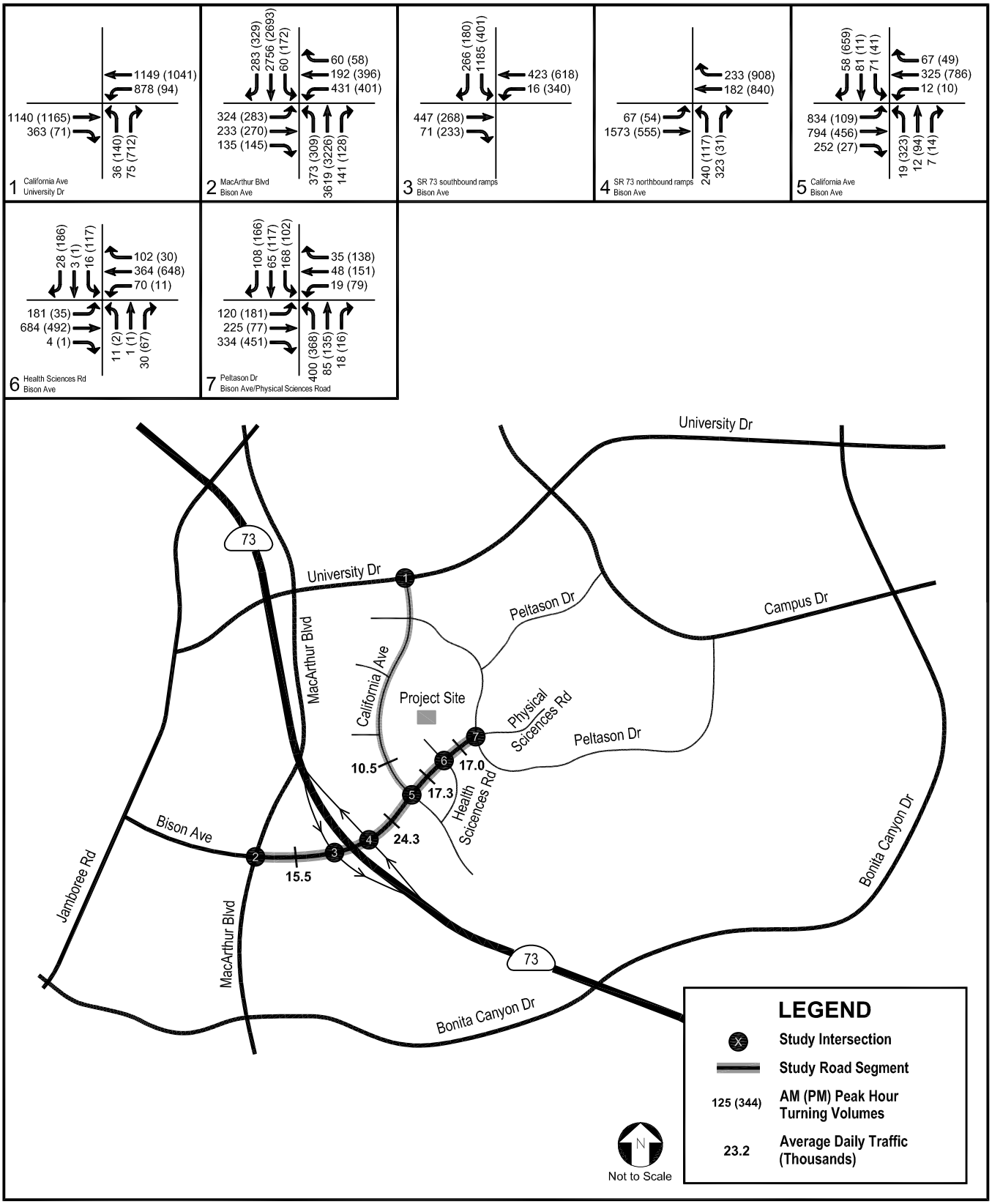
Road Segment	Section Limits	Street Classification	Lane Configuration	Daily Volume	Capacity	V/C	LOS
California Avenue	University Drive to Bison Avenue	Commuter	2 Undivided	10,400	13,000	0.800	C
Bison Avenue	MacArthur Boulevard to SR 73 southbound ramps	Major Arterial	6 Divided	15,477	54,000	0.287	A
	SR 73 northbound ramps to California Avenue	Primary Arterial	4 Divided	24,098	32,000	0.753	C
	California Avenue to Health Sciences Road	Primary Arterial	4 Divided	17,089	32,000	0.534	A
	Health Sciences Road to Peltason Drive	Primary Arterial	4 Divided	16,937	32,000	0.529	A

Source: P&D Consultants (2007).
[1] 2009 without the Project includes existing traffic and ambient growth but without the proposed project traffic.



Source: P&D Consultants (2007).

Figure 4.1-1
Traffic Volumes
2009 without Project



Source: P&D Consultants (2007).

Figure 4.1-2
Traffic Volumes
2009 with Project

Table 4.2-2 summarizes the study road segment LOS in 2009 with the proposed project. As shown in Table 4.2-2, all study road segments will operate at acceptable LOS D or better. California Avenue between University Drive and Bison Avenue will have the worst V/C ratio of 0.805 and will operate at LOS D.

TABLE 4.2-2
ROAD SEGMENT DAILY LEVELS OF SERVICE – 2009 WITH THE PROJECT[1]

Road Segment	Section Limits	Street Classification	Lane Configuration	Daily Volume	Capacity	V/C	LOS
California Avenue	University Drive to Bison Avenue	Commuter	2 Undivided	10,468	13,000	0.805	D
Bison Avenue	MacArthur Boulevard to SR 73 southbound ramps	Major Arterial	6 Divided	15,545	54,000	0.288	A
	SR 73 northbound ramps to California Avenue	Primary Arterial	4 Divided	24,285	32,000	0.759	C
	California Avenue to Health Sciences Road	Primary Arterial	4 Divided	17,344	32,000	0.542	A
	Health Sciences Road to Peltason Drive	Primary Arterial	4 Divided	17,022	32,000	0.532	A

Source: P&D Consultants (2007).
[1] 2009 with the Project includes existing traffic, ambient growth and the proposed project traffic.

Table 4.2-3 summarizes the road segment changes in the V/C ratio, and identifies if the road segment will be operating at an unacceptable LOS, and if the road segment will be significantly adversely impacted by implementation of the proposed project. As shown in Table 4.2-3, all road segments will operate at an acceptable LOS with the proposed project. The road segments will not require an additional peak hour V/C analysis because the road segments will operate at acceptable LOS and the increase in daily V/C ratio is less than 0.02 when rounded to the nearest hundredths. Therefore, implementation of the proposed project will not create a significant adverse impact to the road segments.

TABLE 4.2-3
ROAD SEGMENT SIGNIFICANT ADVERSE IMPACT SUMMARY – 2009

Road Segment	Section Limits	Change in V/C	Unacc. LOS?[1]	Peak Hour				Sig. Adv. Imp.?[2]
				Highest Volume	Capacity	V/C	LOS	
California Avenue	University Drive to Bison Avenue	0.005	No	Not Applicable				No
Bison Avenue	MacArthur Boulevard to SR 73 southbound ramps	0.001	No	Not Applicable				No
	SR 73 northbound ramps to California Avenue	0.006	No	Not Applicable				No
	California Avenue to Health Sciences Road	0.008	No	Not Applicable				No
	Health Sciences Road to Peltason Drive	0.003	No	Not Applicable				No

Source: P&D Consultants (2007).
[1] Unacc. LOS: Unacceptable LOS.
[2] Sig. Adv. Imp.: Significant Adverse Impact.

4.2.2 INTERSECTIONS

Table 4.2-4 summarizes the study intersection LOS in 2009 without the proposed project during the A.M. and P.M. peak hours. As shown in Table 4.2-4, all study intersections will operate at acceptable LOS D or better except for the intersection of California Avenue at University Drive during the A.M. peak hour and the intersection of California Avenue at Bison Avenue during the P.M. peak hour. California Avenue at University Drive has an ICU of 0.940 and will operate at unacceptable LOS E during the A.M. peak hour in 2009 without the proposed project. California Avenue at Bison Avenue has an ICU of 0.927 and will operate at unacceptable LOS E during the P.M. peak hour in 2009 without the proposed project. The detailed LOS calculation worksheets are included in Appendix C1.

TABLE 4.2-4
INTERSECTION LEVELS OF SERVICE – 2009 WITHOUT THE PROJECT[1]

Index	Intersection	A.M. Peak Hour		P.M. Peak Hour	
		ICU	LOS	ICU	LOS
1	California Avenue at University Drive	**0.940**	**E**	0.861	D
2	MacArthur Boulevard at Bison Avenue	0.793	C	0.770	C
3	SR 73 southbound ramps at Bison Avenue	0.527	A	0.402	A
4	SR 73 northbound ramps at Bison Avenue	0.615	B	0.643	B
5	California Avenue at Bison Avenue	0.692	B	**0.927**	**E**
6	Health Sciences Road at Bison Avenue	0.326	A	0.364	A
7	Peltason Drive at Bison Avenue/Physical Sciences Road	0.584	A	0.647	B

Source: P&D Consultants (2007). **Bolded** items indicate intersections will operate at below-standard LOS.
[1] 2009 without the Project includes existing traffic and ambient growth but without the proposed project traffic.

Table 4.2-5 summarizes the study intersection LOS in 2009 with the proposed project during the A.M. and P.M. peak hours. As shown in Table 4.2-5, all study intersections will operate at acceptable LOS D or better except for the intersection of California Avenue at University Drive during the A.M. peak hour and the intersection of California Avenue at Bison Avenue during the P.M. peak hour. California Avenue at University Drive has an ICU of 0.946 and will operate at unacceptable LOS E during the A.M. peak hour in 2009 with the proposed project. California Avenue at Bison Avenue has an ICU of 0.937 and will operate at unacceptable LOS E during the P.M. peak hour in 2009 with the proposed project. The detailed LOS calculation worksheets are included in Appendix C2.

TABLE 4.2-5
INTERSECTION LEVELS OF SERVICE – 2009 WITH THE PROJECT[1]

Index	Intersection	A.M. Peak Hour		P.M. Peak Hour	
		ICU	LOS	ICU	LOS
1	California Avenue at University Drive	**0.946**	**E**	0.867	D
2	MacArthur Boulevard at Bison Avenue	0.795	C	0.772	C
3	SR 73 southbound ramps at Bison Avenue	0.535	A	0.405	A
4	SR 73 northbound ramps at Bison Avenue	0.623	B	0.651	B
5	California Avenue at Bison Avenue	0.701	C	**0.937**	**E**
6	Health Sciences Road at Bison Avenue	0.327	A	0.380	A
7	Peltason Drive at Bison Avenue/Physical Sciences Road	0.591	A	0.651	B

Source: P&D Consultants (2007). **Bolded** items indicate intersections will operate at below-standard LOS.
[1] 2009 with the Project includes existing traffic, ambient growth and the proposed project traffic.

Table 4.2-6 summarizes the intersection changes in ICU, identifies if the intersection will be operating at an unacceptable LOS, and if the intersection will be significantly adversely impacted by implementation of the proposed project. As shown in Table 4.2-6, all intersections will operate at an acceptable LOS with the proposed project except for the intersection of California Avenue at University Drive during the A.M. peak hour and the intersection of California Avenue at Bison Avenue during the P.M. peak hour. However, the increase in ICU is less than 0.02 when rounded to the nearest hundredths for these two intersections. Therefore, implementation of the proposed project will not create a significant adverse impact to the intersections.

TABLE 4.2-6
INTERSECTION SIGNIFICANT ADVERSE IMPACT SUMMARY – 2009

Index	Intersection	A.M. Peak Hour			P.M. Peak Hour		
		Change in ICU	Unacc. LOS?[1]	Sig. Adv. Imp.?[2]	Change in ICU	Unacc. LOS?	Sig. Adv. Imp.?
1	California Avenue at University Drive	0.006	Yes	No	0.006	No	No
2	MacArthur Boulevard at Bison Avenue	0.002	No	No	0.002	No	No
3	SR 73 southbound ramps at Bison Avenue	0.008	No	No	0.003	No	No
4	SR 73 northbound ramps at Bison Avenue	0.008	No	No	0.008	No	No
5	California Avenue at Bison Avenue	0.009	No	No	0.010	Yes	No
6	Health Sciences Road at Bison Avenue	0.001	No	No	0.016	No	No
7	Peltason Drive at Bison Avenue/Physical Sciences Road	0.007	No	No	0.004	No	No

Source: P&D Consultants (2007).
[1] Unacc. LOS: Unacceptable LOS.
[2] Sig. Adv. Imp.: Significant Adverse Impact.

4.3 RECOMMENDED MITIGATION MEASURES

No mitigation measures are required in 2009 because no study road segment or intersection will be significantly adversely impacted by implementation of the proposed project.

4.4 SIGNAL WARRANT ANALYSIS

The Peak Hour Warrant was used to analyze the need for a traffic signal for year 2009 without and with the proposed project at the unsignalized intersection of Health Sciences Road at Bison Avenue. The signal warrant analysis shows that a traffic signal is not warranted for year 2009 without the proposed project because of low traffic volumes on the minor approaches. However, the signal warrant analysis shows that a traffic signal is warranted for year 2009 with the proposed project because of the high traffic volumes on the southbound approach during the P.M. peak hour. The detailed signal warrant analyses are included in Appendix D.

SECTION 5.0
FINDINGS AND RECOMMENDATIONS

This section summarizes the key findings and recommendations for transportation related issues pertaining to Telemedicine/PRIME-LC Facility project.

5.1 FINDINGS AND CONCLUSIONS

5.1.1 TELEMIDICINE/PRIME-LC FACILITY PROJECT

The proposed 65,000 GSF building could support up to 311 students based on the 2005-06 academic year GSF to student ratio at UCI. The 2005-06 academic year GSF to student ratio is approximately 209 GSF per student.

Based on the 311 student that the proposed 65,000 GSF building could support, the proposed project would generate 740 daily trips with 65 trips occurring during the A.M. and P.M. peak hours.

5.1.2 EXISTING CONDITIONS

All study road segments currently operate at an acceptable daily LOS. All study intersections currently operate at an acceptable LOS during the A.M. and P.M. peak hours.

The intersection of Health Sciences Road at Bison Avenue does not meet peak hour signal warrants for existing conditions because of the low traffic volumes on the minor approaches.

5.1.3 YEAR 2009 CONDITIONS

All study road segments will operate at an acceptable daily LOS in year 2009 without and with the proposed project. Implementation of the proposed project will not create a significant adverse impact on the study road segments because all the road segments will operate at an acceptable LOS.

All study intersections will operate at an acceptable peak hour LOS in year 2009 without and with the proposed project except for the intersection of California Avenue at University Drive during the A.M. peak hour and the intersection of California Avenue at Bison Avenue during the P.M. peak hour. The intersection of California Avenue at University Drive will operate at an unacceptable LOS E during the A.M. peak hour, and the intersection of California Avenue at Bison Avenue will operate at an unacceptable LOS E during the P.M. peak hour.

Implementation of the proposed project will not create a significant adverse impact on the study intersections because the intersections either operate at an acceptable LOS or the increase in ICU is less than 0.02 when rounded to the nearest hundredths for intersections forecasted to operate at an unacceptable LOS.

The intersection of Health Sciences Road at Bison Avenue does not meet peak hour signal warrants in year 2009 without the proposed project because of the low traffic volumes on the minor approaches. However, the intersection of Health Sciences Road at Bison avenue does meet peak hour signal warrants in year 2009 with the proposed project because of the high traffic volumes on the southbound approach during the P.M. peak hour.

5.2 RECOMMENDATIONS

No mitigation measures are required in year 2009, as no significant adverse impacts will occur.

It is recommended to signalize the intersection of Health Sciences Road at Bison Avenue because the intersection will meet peak hour signal warrants in year 2009 with the proposed project.

APPENDIX A
EXISTING VEHICULAR TRAFFIC COUNTS

Volumes for: Wednesday, April 04, 2007 City: Irvine Project #: 07-1093-001

Location: California Ave just N/o Bison Ave

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	2		3					12:00	102		170				
00:15	4		1					12:15	96		118				
00:30	3		0					12:30	116		107				
00:45	2	11	0	4			15	12:45	110	424	78	473			897
01:00	1		5					13:00	110		103				
01:15	1		3					13:15	132		92				
01:30	1		0					13:30	99		98				
01:45	0	3	3	11			14	13:45	84	425	67	360			785
02:00	0		7					14:00	65		68				
02:15	2		2					14:15	57		53				
02:30	0		0					14:30	58		69				
02:45	3	5	3	12			17	14:45	42	222	51	241			463
03:00	0		5					15:00	61		92				
03:15	3		1					15:15	58		57				
03:30	0		3					15:30	53		63				
03:45	1	4	1	10			14	15:45	62	234	74	286			520
04:00	3		14					16:00	52		103				
04:15	3		2					16:15	43		76				
04:30	6		2					16:30	61		93				
04:45	11	23	12	30			53	16:45	72	228	99	371			599
05:00	8		3					17:00	78		143				
05:15	4		8					17:15	64		154				
05:30	11		7					17:30	71		182				
05:45	40	63	14	32			95	17:45	55	268	125	604			872
06:00	18		11					18:00	94		164				
06:15	25		13					18:15	76		122				
06:30	43		20					18:30	91		109				
06:45	62	148	55	99			247	18:45	92	353	86	481			834
07:00	59		61					19:00	50		63				
07:15	62		35					19:15	62		53				
07:30	89		53					19:30	43		40				
07:45	128	338	54	203			541	19:45	32	187	37	193			380
08:00	174		78					20:00	39		48				
08:15	163		64					20:15	17		31				
08:30	150		78					20:30	15		21				
08:45	189	676	101	321			997	20:45	21	92	11	111			203
09:00	158		110					21:00	19		26				
09:15	111		135					21:15	11		16				
09:30	121		99					21:30	14		16				
09:45	84	474	67	411			885	21:45	17	61	17	75			136
10:00	68		70					22:00	8		24				
10:15	45		78					22:15	4		12				
10:30	55		41					22:30	6		8				
10:45	72	240	71	260			500	22:45	3	21	7	51			72
11:00	50		54					23:00	3		16				
11:15	53		71					23:15	0		5				
11:30	78		105					23:30	4		2				
11:45	96	277	117	347			624	23:45	4	11	6	29			40
Total Vol.		2262		1740			**4002**			2526		3275			**5801**

Daily Totals

NB	SB	EB	WB	**Combined**
4788	5015			**9803**

	AM			**PM**		
Split %	56.5%	43.5%	**40.8%**	43.5%	56.5%	**59.2%**
Peak Hour	08:00	11:45	**08:30**	12:30	17:15	**17:15**
Volume	676	512	**1032**	468	625	**909**
P.H.F.	0.89	0.75	**0.89**	0.96	0.86	**0.88**

Volumes for: Wednesday, April 04, 2007 City: Irvine Project #: 07-1093-002

Location: Bison Ave just E/o MacArthur Blvd

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			10		14			12:00			128		218		
00:15			6		7			12:15			147		170		
00:30			9		9			12:30			163		130		
00:45			6	31	6	36	67	12:45			175	613	152	670	1283
01:00			4		4			13:00			158		160		
01:15			1		5			13:15			132		122		
01:30			4		0			13:30			139		116		
01:45			0	9	2	11	20	13:45			106	535	126	524	1059
02:00			4		4			14:00			109		105		
02:15			3		0			14:15			78		100		
02:30			1		0			14:30			95		106		
02:45			3	11	1	5	16	14:45			54	336	84	395	731
03:00			3		2			15:00			73		117		
03:15			0		6			15:15			78		123		
03:30			0		2			15:30			51		110		
03:45			1	4	1	11	15	15:45			65	267	118	468	735
04:00			4		4			16:00			105		150		
04:15			1		1			16:15			114		147		
04:30			3		6			16:30			83		136		
04:45			7	15	4	15	30	16:45			80	382	159	592	974
05:00			8		10			17:00			98		136		
05:15			11		10			17:15			127		177		
05:30			16		10			17:30			120		226		
05:45			30	65	12	42	107	17:45			115	460	196	735	1195
06:00			36		23			18:00			121		219		
06:15			29		18			18:15			129		165		
06:30			26		57			18:30			140		148		
06:45			49	140	149	247	387	18:45			137	527	148	680	1207
07:00			61		111			19:00			87		140		
07:15			93		133			19:15			74		94		
07:30			101		150			19:30			98		100		
07:45			117	372	199	593	965	19:45			61	320	81	415	735
08:00			105		151			20:00			71		76		
08:15			180		151			20:15			80		93		
08:30			109		191			20:30			57		81		
08:45			120	514	127	620	1134	20:45			44	252	74	324	576
09:00			141		117			21:00			58		62		
09:15			131		80			21:15			39		54		
09:30			92		76			21:30			33		40		
09:45			85	449	102	375	824	21:45			35	165	56	212	377
10:00			91		108			22:00			33		44		
10:15			91		74			22:15			19		36		
10:30			105		80			22:30			19		26		
10:45			123	410	75	337	747	22:45			9	80	33	139	219
11:00			103		102			23:00			12		18		
11:15			123		103			23:15			11		21		
11:30			203		133			23:30			9		15		
11:45			180	609	132	470	1079	23:45			7	39	14	68	107
Total Vol.				2629		2762	**5391**					3976		5222	**9198**

Daily Totals

NB	SB	EB	WB	**Combined**
		6605	7984	**14589**

	AM			**PM**		
Split %	48.8%	51.2%	**37.0%**	43.2%	56.8%	**63.0%**
Peak Hour	11:30	07:45	**11:30**	12:15	17:15	**17:15**
Volume	658	692	**1311**	643	818	**1301**
P.H.F.	0.81	0.87	**0.95**	0.92	0.90	**0.94**

Volumes for: Wednesday, April 04, 2007 City: Irvine Project #: 07-1093-003

Location: Bison Ave just W/o California Ave

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			22		17			12:00			225		218		
00:15			24		14			12:15			219		143		
00:30			22		13			12:30			231		133		
00:45			22	90	11	55	145	12:45			214	889	168	662	1551
01:00			26		8			13:00			208		235		
01:15			6		12			13:15			165		151		
01:30			10		4			13:30			202		142		
01:45			12	54	4	28	82	13:45			208	783	172	700	1483
02:00			6		7			14:00			148		192		
02:15			6		4			14:15			114		146		
02:30			8		6			14:30			162		158		
02:45			6	26	5	22	48	14:45			132	556	166	662	1218
03:00			11		3			15:00			180		220		
03:15			5		3			15:15			162		226		
03:30			8		2			15:30			169		228		
03:45			2	26	3	11	37	15:45			148	659	253	927	1586
04:00			6		5			16:00			109		370		
04:15			8		3			16:15			136		361		
04:30			12		2			16:30			136		379		
04:45			24	50	15	25	75	16:45			141	522	365	1475	1997
05:00			15		28			17:00			169		370		
05:15			31		4			17:15			166		337		
05:30			40		8			17:30			190		319		
05:45			122	208	15	55	263	17:45			246	771	332	1358	2129
06:00			98		17			18:00			185		224		
06:15			110		25			18:15			195		174		
06:30			114		47			18:30			189		122		
06:45			118	440	49	138	578	18:45			164	733	107	627	1360
07:00			325		46			19:00			128		125		
07:15			200		51			19:15			162		138		
07:30			296		60			19:30			144		102		
07:45			364	1185	87	244	1429	19:45			75	509	77	442	951
08:00			564		70			20:00			112		80		
08:15			295		99			20:15			80		67		
08:30			395		113			20:30			82		65		
08:45			434	1688	152	434	2122	20:45			85	359	88	300	659
09:00			209		136			21:00			82		103		
09:15			159		113			21:15			100		103		
09:30			219		116			21:30			78		64		
09:45			275	862	87	452	1314	21:45			45	305	67	337	642
10:00			136		102			22:00			86		66		
10:15			162		60			22:15			78		55		
10:30			148		52			22:30			56		37		
10:45			270	716	97	311	1027	22:45			55	275	40	198	473
11:00			205		142			23:00			44		43		
11:15			198		92			23:15			44		20		
11:30			219		81			23:30			24		26		
11:45			244	866	120	435	1301	23:45			24	136	20	109	245
Total Vol.				6211		2210	**8421**					6497		7797	**14294**

Daily Totals

NB	SB	EB	WB	Combined
		12708	10007	**22715**

	AM			PM		
Split %	73.8%	26.2%	**37.1%**	45.5%	54.5%	**62.9%**
Peak Hour	08:00	11:45	**08:00**	12:00	16:00	**17:00**
Volume	1688	614	**2122**	889	1475	**2129**
P.H.F.	0.75	0.70	**0.84**	0.96	0.97	**0.92**

Volumes for: Wednesday, April 04, 2007 City: Irvine Project #: 07-1093-004

Location: Bison Ave just E/o California Ave

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			15		11			12:00			130		212		
00:15			17		11			12:15			136		133		
00:30			14		11			12:30			145		114		
00:45			12	58	3	36	94	12:45			180	591	156	615	1206
01:00			17		3			13:00			124		170		
01:15			4		3			13:15			121		106		
01:30			10		3			13:30			103		126		
01:45			8	39	6	15	54	13:45			144	492	143	545	1037
02:00			6		6			14:00			128		170		
02:15			2		17			14:15			100		138		
02:30			6		3			14:30			112		183		
02:45			4	18	3	29	47	14:45			89	429	131	622	1051
03:00			8		3			15:00			86		198		
03:15			6		0			15:15			90		156		
03:30			6		3			15:30			87		116		
03:45			5	25	0	6	31	15:45			110	373	153	623	996
04:00			6		0			16:00			73		170		
04:15			8		3			16:15			81		168		
04:30			14		3			16:30			99		168		
04:45			29	57	8	14	71	16:45			132	385	165	671	1056
05:00			16		8			17:00			111		205		
05:15			46		0			17:15			120		178		
05:30			78		3			17:30			156		161		
05:45			174	314	3	14	328	17:45			150	537	200	744	1281
06:00			145		11			18:00			128		180		
06:15			144		17			18:15			127		161		
06:30			106		33			18:30			124		126		
06:45			105	500	36	97	597	18:45			111	490	94	561	1051
07:00			77		56			19:00			71		146		
07:15			130		47			19:15			117		104		
07:30			133		45			19:30			71		72		
07:45			167	507	78	226	733	19:45			60	319	77	399	718
08:00			136		78			20:00			76		62		
08:15			198		106			20:15			61		62		
08:30			236		109			20:30			81		79		
08:45			196	766	131	424	1190	20:45			70	288	62	265	553
09:00			198		120			21:00			64		72		
09:15			136		114			21:15			66		86		
09:30			247		126			21:30			59		62		
09:45			170	751	140	500	1251	21:45			40	229	74	294	523
10:00			87		120			22:00			47		40		
10:15			79		61			22:15			54		42		
10:30			61		39			22:30			32		22		
10:45			162	389	89	309	698	22:45			32	165	25	129	294
11:00			117		134			23:00			29		20		
11:15			126		120			23:15			30		15		
11:30			158		137			23:30			11		12		
11:45			131	532	176	567	1099	23:45			15	85	17	64	149
Total Vol.				3956		2237	**6193**					4383		5532	**9915**

Daily Totals

NB	SB	EB	WB	Combined
		8339	7769	**16108**

	AM			PM		
Split %	63.9%	36.1%	**38.4%**	44.2%	55.8%	**61.6%**
Peak Hour	08:15	11:30	**08:15**	12:00	17:00	**17:00**
Volume	828	658	**1294**	591	744	**1281**
P.H.F.	0.88	0.78	**0.94**	0.82	0.91	**0.92**

Volumes for: Wednesday, April 04, 2007 City: Irvine Project #: 07-1093-005

Location: Bison Ave just E/o Health Sciences Rd

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			14		20			12:00			160		182		
00:15			15		16			12:15			156		119		
00:30			14		15			12:30			164		111		
00:45			14	57	13	64	121	12:45			152	632	140	552	1184
01:00			17		9			13:00			148		196		
01:15			4		14			13:15			118		126		
01:30			6		5			13:30			145		118		
01:45			8	35	5	33	68	13:45			148	559	143	583	1142
02:00			4		8			14:00			105		160		
02:15			4		5			14:15			81		122		
02:30			5		7			14:30			116		132		
02:45			4	17	6	26	43	14:45			94	396	138	552	948
03:00			7		3			15:00			128		183		
03:15			3		3			15:15			115		148		
03:30			5		2			15:30			120		120		
03:45			2	17	3	11	28	15:45			105	468	146	597	1065
04:00			4		6			16:00			91		150		
04:15			5		3			16:15			114		168		
04:30			8		2			16:30			114		159		
04:45			15	32	17	28	60	16:45			118	437	149	626	1063
05:00			10		32			17:00			141		148		
05:15			20		5			17:15			139		142		
05:30			26		9			17:30			159		121		
05:45			78	134	17	63	197	17:45			206	645	158	569	1214
06:00			62		20			18:00			164		143		
06:15			70		29			18:15			173		107		
06:30			73		54			18:30			168		102		
06:45			75	280	56	159	439	18:45			146	651	89	441	1092
07:00			64		56			19:00			91		104		
07:15			97		62			19:15			115		115		
07:30			144		74			19:30			102		85		
07:45			177	482	107	299	781	19:45			53	361	64	368	729
08:00			86		85			20:00			80		67		
08:15			143		121			20:15			57		56		
08:30			192		138			20:30			59		54		
08:45			211	632	186	530	1162	20:45			60	256	73	250	506
09:00			167		156			21:00			59		86		
09:15			127		130			21:15			71		86		
09:30			175		133			21:30			55		53		
09:45			220	689	100	519	1208	21:45			32	217	56	281	498
10:00			87		117			22:00			61		55		
10:15			104		69			22:15			55		46		
10:30			94		60			22:30			40		31		
10:45			173	458	112	358	816	22:45			39	195	33	165	360
11:00			131		163			23:00			31		36		
11:15			126		106			23:15			31		17		
11:30			140		93			23:30			17		22		
11:45			156	553	138	500	1053	23:45			17	96	17	92	188
Total Vol.			3386		2590		**5976**				4913		5076		**9989**

Daily Totals

NB	SB	EB	WB	**Combined**
		8299	7666	**15965**

	AM			PM		
Split %	56.7%	43.3%	**37.4%**	49.2%	50.8%	**62.6%**
Peak Hour	08:15	08:30	**08:15**	17:45	16:00	**17:15**
Volume	713	610	**1314**	711	626	**1232**
P.H.F.	0.84	0.82	**0.83**	0.86	0.93	**0.85**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: California Ave. DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: University Dr. DAY: WEDNESDAY PROJECT# 07-1092-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	0	1	0	0	0	0	2	1	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4		11					176	39	15	169		414
7:15 AM	8		19					195	51	21	174		468
7:30 AM	6		14					218	55	96	226		615
7:45 AM	9		16					282	57	157	257		778
8:00 AM	7		17					309	92	192	283		900
8:15 AM	8		22					257	83	205	269		844
8:30 AM	11		17					261	76	219	271		855
8:45 AM	7		13					248	88	204	260		820
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	60	0	129	0	0	0	0	1946	541	1109	1909	0	5694

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	33	0	69	0	0	0	0	1075	339	820	1083	0	3419
PEAK HR. FACTOR:		0.850			0.000			0.882			0.971		0.950

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: California Ave. DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: University Dr. DAY: WEDNESDAY PROJECT# 07-1092-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	0	1	0	0	0	0	2	1	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	22		81					222	10	22	216		573
4:15 PM	30		94					254	4	29	233		644
4:30 PM	34		106					297	10	34	241		722
4:45 PM	29		114					303	15	29	247		737
5:00 PM	36		169					269	20	17	245		756
5:15 PM	38		188					271	16	21	256		790
5:30 PM	27		194					255	15	19	233		743
5:45 PM	29		138					258	13	25	240		703
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	245	0	1084	0	0	0	0	2129	103	196	1911	0	5668

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	130	0	665	0	0	0	0	1098	66	86	981	0	3026
PEAK HR. FACTOR:		0.879			0.000			0.915			0.963		0.958

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mac Arthur Blvd DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave DAY: WEDNESDAY PROJECT# 07-1092-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	4	1	2	4	1	2	2	1	2	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	97	777	11	8	634	59	55	31	19	55	22	9	1777
7:15 AM	121	841	28	9	671	65	71	45	25	81	31	5	1993
7:30 AM	115	871	26	7	656	67	67	53	23	117	50	20	2072
7:45 AM	64	848	32	10	704	70	93	60	38	104	59	16	2098
8:00 AM	52	851	42	28	567	65	74	59	41	103	40	15	1937
8:15 AM	79	810	52	35	538	73	74	103	25	99	56	14	1958
8:30 AM	61	852	29	31	537	72	88	59	14	129	40	21	1933
8:45 AM	77	786	46	20	596	73	56	57	27	79	43	19	1879
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 666	NT 6636	NR 266	SL 148	ST 4903	SR 544	EL 578	ET 467	ER 212	WL 767	WT 341	WR 119	TOTAL 15647

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	352	3411	128	54	2598	267	305	217	127	405	180	56	8100
PEAK HR. FACTOR:		0.961			0.931			0.849			0.857		0.965

CONTROL: Signalized;

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mac Arthur Blvd DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave DAY: WEDNESDAY PROJECT# 07-1092-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	4	1	2	4	1	2	2	1	2	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	61	681	24	13	495	69	58	23	36	57	54	10	1581
4:15 PM	55	751	27	24	554	51	65	29	34	44	72	12	1718
4:30 PM	82	709	23	21	554	70	57	19	50	61	43	13	1702
4:45 PM	144	724	26	32	579	68	76	34	50	84	60	20	1897
5:00 PM	72	770	22	44	605	60	72	50	44	89	80	10	1918
5:15 PM	77	834	25	45	654	77	61	62	41	107	85	11	2079
5:30 PM	73	716	37	41	649	90	65	76	24	90	107	17	1985
5:45 PM	69	721	35	31	630	83	69	66	28	87	99	15	1933
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 633	NT 5906	NR 219	SL 251	ST 4720	SR 568	EL 523	ET 359	ER 307	WL 619	WT 600	WR 108	TOTAL 14813

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	291	3041	119	161	2538	310	267	254	137	373	371	53	7915
PEAK HR. FACTOR:		0.922			0.964			0.991			0.931		0.952

CONTROL: Signalized;

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-73 SB Ramps DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave DAY: WEDNESDAY PROJECT# 07-1092-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	2	0	1	0	3	0	2	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				94		62		27	22	1	20		226
7:15 AM				138		66		56	18	1	47		326
7:30 AM				171		63		61	19	3	66		383
7:45 AM				254		89		95	31	2	78		549
8:00 AM				225		85		102	16	3	91		522
8:15 AM				273		57		92	20	4	119		565
8:30 AM				269		74		95	15	5	93		551
8:45 AM				338		35		122	16	2	94		607
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 1762	ST 0	SR 531	EL 0	ET 650	ER 157	WL 21	WT 608	WR 0	TOTAL 3729

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	0	0	0	1105	0	251	0	411	67	14	397	0	2245
PEAK HR. FACTOR:		0.000			0.909			0.866			0.835		0.925

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-73 SB Ramps DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave DAY: WEDNESDAY PROJECT# 07-1092-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	2	0	1	0	3	0	2	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				48		27		50	22	21	94		262
4:15 PM				56		23		45	36	33	110		303
4:30 PM				74		13		44	26	37	103		297
4:45 PM				67		44		60	24	48	117		360
5:00 PM				79		24		53	37	86	138		417
5:15 PM				84		28		47	74	91	127		451
5:30 PM				94		55		57	72	68	167		513
5:45 PM				116		63		92	37	71	142		521
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 618	ST 0	SR 277	EL 0	ET 448	ER 328	WL 455	WT 998	WR 0	TOTAL 3124

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	0	0	0	373	0	170	0	249	220	316	574	0	1902
PEAK HR. FACTOR:		0.000			0.758			0.909			0.947		0.913

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-73 NB Ramps DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave DAY: WEDNESDAY PROJECT# 07-1092-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1.5	0	1.5	0	0	0	1	2	0	0	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	25		38				9	109			19	36	236
7:15 AM	33		44				11	182			24	54	348
7:30 AM	41		47				16	216			27	45	392
7:45 AM	48		80				17	332			33	51	561
8:00 AM	44		75				17	312			30	44	522
8:15 AM	71		70				18	348			53	54	614
8:30 AM	59		71				14	356			45	63	608
8:45 AM	52		84				14	444			40	56	690
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES =	373	0	509	0	0	0	116	2299	0	0	271	403	3971

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	226	0	300	0	0	0	63	1460	0	0	168	217	2434
PEAK HR. FACTOR:		0.933			0.000			0.831			0.891		0.882

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-73 NB Ramps DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave DAY: WEDNESDAY PROJECT# 07-1092-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1.5	0	1.5	0	0	0	1	2	0	0	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12		3				9	108			106	193	431
4:15 PM	29		6				8	105			112	185	445
4:30 PM	29		8				11	119			110	188	465
4:45 PM	30		5				9	131			131	217	523
5:00 PM	22		6				16	113			205	212	574
5:15 PM	28		8				10	109			194	225	574
5:30 PM	35		6				11	138			200	204	594
5:45 PM	25		7				14	155			180	204	585
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 210	NT 0	NR 49	SL 0	ST 0	SR 0	EL 88	ET 978	ER 0	WL 0	WT 1238	WR 1628	TOTAL 4191

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	110	0	27	0	0	0	51	515	0	0	779	845	2327
PEAK HR. FACTOR:		0.835			0.000			0.837			0.969		0.979

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: California Ave DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave. DAY: WEDNESDAY PROJECT# 07-1092-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	1	2	1	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	2	0	7	33	7	85	56	27	0	55	6	280
7:15 AM	2	1	0	5	21	8	98	91	41	1	42	8	318
7:30 AM	3	2	1	9	15	11	120	121	53	2	61	9	407
7:45 AM	5	3	0	13	18	9	144	186	60	4	94	12	548
8:00 AM	5	5	2	6	21	12	178	147	62	2	61	11	512
8:15 AM	4	2	2	19	19	11	200	174	51	3	74	15	574
8:30 AM	7	3	0	15	17	17	195	197	68	2	77	18	616
8:45 AM	2	1	3	17	19	15	213	203	57	4	88	17	639
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	30	19	8	91	163	90	1233	1175	419	18	552	96	3894

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	18	11	7	57	76	55	786	721	238	11	300	61	2341
PEAK HR. FACTOR:		0.750			0.922			0.922			0.853		0.916

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: California Ave DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave. DAY: WEDNESDAY PROJECT# 07-1092-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	1	2	1	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	37	19	1	7	0	87	21	109	2	1	131	7	422
4:15 PM	52	21	2	5	3	92	25	101	1	1	162	5	470
4:30 PM	60	15	2	7	1	101	14	104	4	0	151	12	471
4:45 PM	78	25	2	9	4	136	21	92	9	2	157	9	544
5:00 PM	81	26	6	10	3	161	24	104	8	2	203	7	635
5:15 PM	73	22	3	9	1	153	25	102	7	3	184	10	592
5:30 PM	72	16	2	7	2	171	33	122	1	2	172	12	612
5:45 PM	57	24	1	6	1	151	21	81	2	1	149	8	502
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
VOLUMES =	510	168	19	60	15	1052	184	815	34	12	1309	70	4248

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	304	89	13	35	10	621	103	420	25	9	716	38	2383
PEAK HR. FACTOR:		0.898			0.925			0.878			0.900		0.938

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Health Sciences Rd. DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave. DAY: WEDNESDAY PROJECT# 07-1092-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0.5	0.5	1	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	12	0	3	3	0	7	8	46	4	4	43	5	135
7:15 AM	0	1	4	1	2	0	22	104	2	3	52	12	203
7:30 AM	0	0	3	2	1	1	27	116	2	8	76	8	244
7:45 AM	0	0	1	2	0	3	26	127	0	12	108	16	295
8:00 AM	1	1	11	3	1	4	34	140	0	13	67	18	293
8:15 AM	1	0	4	1	1	5	34	144	1	14	89	16	310
8:30 AM	1	0	6	3	0	4	29	179	2	22	93	17	356
8:45 AM	7	0	7	5	1	5	36	182	1	17	94	33	388
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	22	2	39	20	6	29	216	1038	12	93	622	125	2224

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	10	1	28	12	3	18	133	645	4	66	343	84	1347
PEAK HR. FACTOR:		0.696			0.750			0.893			0.856		0.868

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Health Sciences Rd. DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave. DAY: WEDNESDAY PROJECT# 07-1092-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0.5	0.5	1	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	1	5	13	1	20	6	84	0	5	114	7	256
4:15 PM	0	0	1	10	0	27	5	85	0	1	125	6	260
4:30 PM	1	0	12	10	0	30	7	112	0	4	128	7	311
4:45 PM	0	1	6	11	1	26	3	115	0	1	151	10	325
5:00 PM	0	0	16	33	1	55	4	101	0	4	168	7	389
5:15 PM	1	0	12	20	0	35	2	120	1	0	156	6	353
5:30 PM	1	1	16	23	0	25	7	123	0	5	132	6	339
5:45 PM	0	0	19	23	0	27	7	120	0	1	155	5	357
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	3	3	87	143	3	245	41	860	1	21	1129	54	2590

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	2	1	63	99	1	142	20	464	1	10	611	24	1438
PEAK HR. FACTOR:		0.868			0.680			0.933			0.901		0.924

CONTROL: 2-Way Stop N & S

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Peltason Dr. DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave./Physical Sciences DAY: WEDNESDAY PROJECT# 07-1092-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0.5	0.5	1	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	51	5	2	14	8	9	20	22	59	3	9	9	211
7:15 AM	57	5	1	23	12	15	16	28	65	3	2	6	233
7:30 AM	65	17	5	25	7	9	10	34	77	1	10	10	270
7:45 AM	79	16	2	55	12	12	24	51	87	4	12	8	362
8:00 AM	80	15	1	22	8	26	29	26	71	2	4	10	294
8:15 AM	92	33	1	28	16	18	40	30	80	2	14	9	363
8:30 AM	101	16	4	33	15	27	26	70	71	5	10	6	384
8:45 AM	94	16	11	75	22	30	18	86	91	9	16	8	476
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 619	NT 123	NR 27	SL 275	ST 100	SR 146	EL 183	ET 347	ER 601	WL 29	WT 77	WR 66	TOTAL 2593

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	367	80	17	158	61	101	113	212	313	18	44	33	1517
PEAK HR. FACTOR:		0.921			0.630			0.818			0.720		0.797

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Peltason Dr. DATE: 4/4/2007 LOCATION: City of Irvine

E-W STREET: Bison Ave./Physical Sciences DAY: WEDNESDAY PROJECT# 07-1092-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	0.5	0.5	1	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	83	26	3	14	16	20	20	6	59	15	22	45	329
4:15 PM	90	20	6	16	16	31	21	7	57	18	27	23	332
4:30 PM	72	24	3	25	19	56	32	11	78	11	34	36	401
4:45 PM	82	34	4	29	25	29	29	16	72	14	43	62	439
5:00 PM	90	37	3	12	18	56	40	16	92	19	38	36	457
5:15 PM	86	25	3	25	28	29	42	19	93	15	41	26	432
5:30 PM	80	24	3	26	34	30	38	17	118	20	30	30	450
5:45 PM	87	41	6	33	30	41	50	20	114	20	33	38	513
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 670	NT 231	NR 31	SL 180	ST 186	SR 292	EL 272	ET 112	ER 683	WL 132	WT 268	WR 296	TOTAL 3353

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	343	127	15	96	110	156	170	72	417	74	142	130	1852
PEAK HR. FACTOR:		0.905			0.870			0.895			0.930		0.903

CONTROL: Signalized

APPENDIX B
LOS COMPUTATION REPORTS
EXISTING CONDITIONS

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 California Avenue at University Drive

Cycle (sec):	100	Critical Vol./Cap. (X):	0.889
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Street Name:	California Avenue						University Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0	0	1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	33	0	69	0	0	0	0	1075	339	820	1083	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	0	69	0	0	0	0	1075	339	820	1083	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	0	69	0	0	0	0	1075	339	820	1083	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	0	69	0	0	0	0	1075	339	820	1083	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	33	0	69	0	0	0	0	1075	339	820	1083	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3400	0	1700	0	0	0	0	3400	1700	1700	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.32	0.20	0.48	0.32	0.00
Crit Moves:			****					****		****		

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 California Avenue at University Drive

Cycle (sec):	100	Critical Vol./Cap. (X):	0.815
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	D

Street Name:	California Avenue						University Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0	0 1		0 0 0	0 0		0 0 2	0 1		1 0 2	0 0	
Volume Module:												
Base Vol:	130	0	665	0	0	0	0	1098	66	86	981	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	0	665	0	0	0	0	1098	66	86	981	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	0	665	0	0	0	0	1098	66	86	981	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	0	665	0	0	0	0	1098	66	86	981	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	130	0	665	0	0	0	0	1098	66	86	981	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3400	0	1700	0	0	0	0	3400	1700	1700	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.39	0.00	0.00	0.00	0.00	0.32	0.04	0.05	0.29	0.00
Crit Moves:			****					****		****		

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 MacArthur Boulevard at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.750
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: C

Street Name:	MacArthur Boulevard						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Ovl			Ignore			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 4	0	1	2 0 4	0	1	2 0 2	0	1	2 0 2	0	1
Volume Module:												
Base Vol:	352	3411	128	54	2598	267	305	217	127	405	180	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	352	3411	128	54	2598	267	305	217	127	405	180	56
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	352	3411	0	54	2598	267	305	217	0	405	180	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	352	3411	0	54	2598	267	305	217	0	405	180	56
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	352	3411	0	54	2598	267	305	217	0	405	180	56
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	6800	1700	3400	6800	1700	3400	3400	1700	3400	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.10	0.50	0.00	0.02	0.38	0.16	0.09	0.06	0.00	0.12	0.05	0.03
Crit Moves:	****			****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 MacArthur Boulevard at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.732
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	C

Street Name:	MacArthur Boulevard						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Ovl			Ignore			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 4	0	1	2 0 4	0	1	2 0 2	0	1	2 0 2	0	1
Volume Module:												
Base Vol:	291	3041	119	161	2538	310	267	254	137	373	371	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	291	3041	119	161	2538	310	267	254	137	373	371	53
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	291	3041	0	161	2538	310	267	254	0	373	371	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	291	3041	0	161	2538	310	267	254	0	373	371	53
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	291	3041	0	161	2538	310	267	254	0	373	371	53
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	6800	1700	3400	6800	1700	3400	3400	1700	3400	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.09	0.45	0.00	0.05	0.37	0.18	0.08	0.07	0.00	0.11	0.11	0.03
Crit Moves:		****			****			****			****	

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 SR 73 Southbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.492
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Street Name:	SR 73 Southbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0 0	0	2	0 0	0 1	0 0	2 0	1	2	0 2	0 0
Volume Module:												
Base Vol:	0	0	0	1105	0	251	0	411	67	14	397	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1105	0	251	0	411	67	14	397	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1105	0	0	0	411	67	14	397	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1105	0	0	0	411	67	14	397	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1105	0	0	0	411	67	14	397	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	3400	0	1700	0	3400	1700	3400	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.12	0.04	0.00	0.12	0.00
Crit Moves:				****			****				****	

UCI Telemedicine / Prime LC Facilities Project
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 SR 73 Southbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.382
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	Level Of Service:	A

Street Name:	SR 73 Southbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	2 0	0	0 1	0 0	2	0 1	2 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	373	0	170	0	249	220	316	574	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	373	0	170	0	249	220	316	574	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	373	0	0	0	249	220	316	574	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	373	0	0	0	249	220	316	574	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	373	0	0	0	249	220	316	574	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	3400	0	1700	0	3400	1700	3400	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.07	0.13	0.09	0.17	0.00
Crit Moves:				****					****	****		

UCI Telemedicine / Prime LC Facilities Project
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 SR 73 Northbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.583
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	SR 73 Northbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1! 0	1	0 0	0	0 0	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	226	0	300	0	0	0	63	1460	0	0	168	217
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	0	300	0	0	0	63	1460	0	0	168	217
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	226	0	300	0	0	0	63	1460	0	0	168	217
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	300	0	0	0	63	1460	0	0	168	217
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	226	0	300	0	0	0	63	1460	0	0	168	217
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.28	0.01	1.71	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	2191	0	2909	0	0	0	1700	3400	0	0	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.10	0.00	0.00	0.00	0.04	0.43	0.00	0.00	0.05	0.13
Crit Moves:	****							****		****		

UCI Telemedicine / Prime LC Facilities Project
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 SR 73 Northbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.609
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Street Name:	SR 73 Northbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 1! 0	1	0	0 0 0 0	0	1	0 2	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	110	0	27	0	0	0	51	515	0	0	779	845
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	0	27	0	0	0	51	515	0	0	779	845
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	110	0	27	0	0	0	51	515	0	0	779	845
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	27	0	0	0	51	515	0	0	779	845
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	110	0	27	0	0	0	51	515	0	0	779	845
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3400	0	1700	0	0	0	1700	3400	0	0	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.02	0.00	0.00	0.00	0.03	0.15	0.00	0.00	0.23	0.50
Crit Moves:	****						****					****

UCI Telemedicine / Prime LC Facilities Project
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 California Avenue at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.661
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	B

Street Name:	California Avenue						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	18	11	7	57	76	55	786	721	238	11	300	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	11	7	57	76	55	786	721	238	11	300	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	11	7	57	76	55	786	721	238	11	300	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	11	7	57	76	55	786	721	238	11	300	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	18	11	7	57	76	55	786	721	238	11	300	61
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.66	0.34
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	2825	575
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.03	0.02	0.03	0.46	0.21	0.14	0.01	0.11	0.11
Crit Moves:	****					****	****				****	

UCI Telemedicine / Prime LC Facilities Project
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PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 California Avenue at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.876
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	D

Street Name:	California Avenue						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	304	89	13	35	10	621	103	420	25	9	716	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	304	89	13	35	10	621	103	420	25	9	716	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	304	89	13	35	10	621	103	420	25	9	716	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	304	89	13	35	10	621	103	420	25	9	716	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	304	89	13	35	10	621	103	420	25	9	716	38
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	3229	171
Capacity Analysis Module:												
Vol/Sat:	0.18	0.03	0.01	0.02	0.00	0.37	0.06	0.12	0.01	0.01	0.22	0.22
Crit Moves:	****					****	****				****	

UCI Telemedicine / Prime LC Facilities Project
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Health Sciences Road at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.310
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Street Name:	Health Sciences Road						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	10	1	28	12	3	18	133	645	4	66	343	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	1	28	12	3	18	133	645	4	66	343	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	1	28	12	3	18	133	645	4	66	343	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	1	28	12	3	18	133	645	4	66	343	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	10	1	28	12	3	18	133	645	4	66	343	84
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.26	0.02	0.72	0.80	0.20	1.00	1.00	1.99	0.01	1.00	1.61	0.39
Final Sat.:	436	44	1221	1360	340	1700	1700	3379	21	1700	2731	669
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.01	0.01	0.01	0.08	0.19	0.19	0.04	0.13	0.13
Crit Moves:	****			****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Health Sciences Road at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.346
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Street Name:	Health Sciences Road						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	2	1	63	99	1	142	20	464	1	10	611	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	1	63	99	1	142	20	464	1	10	611	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1	63	99	1	142	20	464	1	10	611	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1	63	99	1	142	20	464	1	10	611	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	2	1	63	99	1	142	20	464	1	10	611	24
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.02	0.95	0.99	0.01	1.00	1.00	1.99	0.01	1.00	1.92	0.08
Final Sat.:	52	26	1623	1683	17	1700	1700	3393	7	1700	3271	129
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.04	0.06	0.06	0.08	0.01	0.14	0.14	0.01	0.19	0.19
Crit Moves:		****			****			****			****	

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Peltason Drive at Bison Avenue/Physical Sciences Road

Cycle (sec):	100	Critical Vol./Cap. (X):	0.553
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Peltason Drive						Bison Ave/Physical Sciences Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	1 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	367	80	17	158	61	101	113	212	313	18	44	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	367	80	17	158	61	101	113	212	313	18	44	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	367	80	17	158	61	101	113	212	313	18	44	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	367	80	17	158	61	101	113	212	313	18	44	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	367	80	17	158	61	101	113	212	313	18	44	33
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	1.00	1.00	0.35	0.65	1.00	0.29	0.71	1.00
Final Sat.:	1700	1402	298	1700	1700	1700	591	1109	1700	494	1206	1700
Capacity Analysis Module:												
Vol/Sat:	0.22	0.06	0.06	0.09	0.04	0.06	0.19	0.19	0.18	0.04	0.04	0.02
Crit Moves:	****					****	****				****	

UCI Telemedicine / Prime LC Facilities Project
2007 Existing Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Peltason Drive at Bison Avenue/Physical Sciences Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.613
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 30 Level Of Service: B

Street Name:	Peltason Drive						Bison Ave/Physical Sciences Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	1 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	343	127	15	96	110	156	170	72	417	74	142	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	343	127	15	96	110	156	170	72	417	74	142	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	343	127	15	96	110	156	170	72	417	74	142	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	343	127	15	96	110	156	170	72	417	74	142	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	343	127	15	96	110	156	170	72	417	74	142	130
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.89	0.11	1.00	1.00	1.00	0.70	0.30	1.00	0.34	0.66	1.00
Final Sat.:	1700	1520	180	1700	1700	1700	1194	506	1700	582	1118	1700
Capacity Analysis Module:												
Vol/Sat:	0.20	0.08	0.08	0.06	0.06	0.09	0.14	0.14	0.25	0.13	0.13	0.08
Crit Moves:	****					****		****			****	

APPENDIX C
LOS COMPUTATION REPORTS
2009

APPENDIX C1
LOS COMPUTATION REPORTS
2009 WITHOUT THE PROJECT

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 California Avenue at University Drive

Cycle (sec): 100 Critical Vol./Cap. (X): 0.940
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 118 Level Of Service: E

Street Name:	California Avenue						University Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0	0 1	0	0	0 0 0	0	0	2 0 1	1	0	2 0 0
Volume Module:												
Base Vol:	33	0	69	0	0	0	0	1075	339	820	1083	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	35	0	73	0	0	0	0	1140	360	870	1149	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	0	73	0	0	0	0	1140	360	870	1149	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	0	73	0	0	0	0	1140	360	870	1149	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	35	0	73	0	0	0	0	1140	360	870	1149	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3400	0	1700	0	0	0	0	3400	1700	1700	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.34	0.21	0.51	0.34	0.00
Crit Moves:			****					****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 California Avenue at University Drive

Cycle (sec): 100 Critical Vol./Cap. (X): 0.861
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: D

Street Name:	California Avenue						University Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0	0	1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	130	0	665	0	0	0	0	1098	66	86	981	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	138	0	705	0	0	0	0	1165	70	91	1041	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	138	0	705	0	0	0	0	1165	70	91	1041	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	0	705	0	0	0	0	1165	70	91	1041	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	138	0	705	0	0	0	0	1165	70	91	1041	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3400	0	1700	0	0	0	0	3400	1700	1700	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.41	0.00	0.00	0.00	0.00	0.34	0.04	0.05	0.31	0.00
Crit Moves:			****					****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 MacArthur Boulevard at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.793
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	MacArthur Boulevard						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Ovl			Ignore			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	4 0	1	2 0	4 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	352	3411	128	54	2598	267	305	217	127	405	180	56
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	373	3619	136	57	2756	283	324	230	135	430	191	59
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	373	3619	0	57	2756	283	324	230	0	430	191	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	373	3619	0	57	2756	283	324	230	0	430	191	59
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	373	3619	0	57	2756	283	324	230	0	430	191	59
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	6800	1700	3400	6800	1700	3400	3400	1700	3400	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.11	0.53	0.00	0.02	0.41	0.17	0.10	0.07	0.00	0.13	0.06	0.03
Crit Moves:	****			****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 MacArthur Boulevard at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.770
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	C

Street Name:	MacArthur Boulevard						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Ovl			Ignore			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 4	0	1	2 0 4	0	1	2 0 2	0	1	2 0 2	0	1
Volume Module:												
Base Vol:	291	3041	119	161	2538	310	267	254	137	373	371	53
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	309	3226	126	171	2693	329	283	269	145	396	394	56
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	309	3226	0	171	2693	329	283	269	0	396	394	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	309	3226	0	171	2693	329	283	269	0	396	394	56
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	309	3226	0	171	2693	329	283	269	0	396	394	56
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	6800	1700	3400	6800	1700	3400	3400	1700	3400	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.09	0.47	0.00	0.05	0.40	0.19	0.08	0.08	0.00	0.12	0.12	0.03
Crit Moves:		****			****			****			****	

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 SR 73 Southbound Ramps at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.527
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Street Name:	SR 73 Southbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	2 0	0	0 1	0 0	2	0 1	2 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	1105	0	251	0	411	67	14	397	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	1172	0	266	0	436	71	15	421	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1172	0	0	0	436	71	15	421	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1172	0	0	0	436	71	15	421	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1172	0	0	0	436	71	15	421	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	3400	0	1700	0	3400	1700	3400	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.13	0.04	0.00	0.12	0.00
Crit Moves:				****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 SR 73 Southbound Ramps at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.402
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 20 Level Of Service: A

Street Name:	SR 73 Southbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	2 0	0	0 1	0 0	2	0 1	2 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	373	0	170	0	249	220	316	574	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	396	0	180	0	264	233	335	609	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	396	0	0	0	264	233	335	609	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	396	0	0	0	264	233	335	609	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	396	0	0	0	264	233	335	609	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	3400	0	1700	0	3400	1700	3400	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.08	0.14	0.10	0.18	0.00
Crit Moves:				****					****	****		

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 SR 73 Northbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.615
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Street Name:	SR 73 Northbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	226	0	300	0	0	0	63	1460	0	0	168	217
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	240	0	318	0	0	0	67	1549	0	0	178	230
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	240	0	318	0	0	0	67	1549	0	0	178	230
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	0	318	0	0	0	67	1549	0	0	178	230
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	240	0	318	0	0	0	67	1549	0	0	178	230
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.28	0.01	1.71	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	2191	0	2909	0	0	0	1700	3400	0	0	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.11	0.00	0.00	0.00	0.04	0.46	0.00	0.00	0.05	0.14
Crit Moves:	****							****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 SR 73 Northbound Ramps at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.643
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Street Name:	SR 73 Northbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 1! 0	1	0	0 0 0 0	0	1	0 2	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	110	0	27	0	0	0	51	515	0	0	779	845
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	117	0	29	0	0	0	54	546	0	0	826	896
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	0	29	0	0	0	54	546	0	0	826	896
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	0	29	0	0	0	54	546	0	0	826	896
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	117	0	29	0	0	0	54	546	0	0	826	896
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3400	0	1700	0	0	0	1700	3400	0	0	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.02	0.00	0.00	0.00	0.03	0.16	0.00	0.00	0.24	0.53
Crit Moves:	****						****					****

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 California Avenue at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.692
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: B

Street Name:	California Avenue						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	18	11	7	57	76	55	786	721	238	11	300	61
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	19	12	7	60	81	58	834	765	252	12	318	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	12	7	60	81	58	834	765	252	12	318	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	12	7	60	81	58	834	765	252	12	318	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	19	12	7	60	81	58	834	765	252	12	318	65
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.66	0.34
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	2825	575
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.04	0.02	0.03	0.49	0.22	0.15	0.01	0.11	0.11
Crit Moves:	****			****			****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 California Avenue at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.927
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 106 Level Of Service: E

Street Name:	California Avenue						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	304	89	13	35	10	621	103	420	25	9	716	38
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	323	94	14	37	11	659	109	446	27	10	760	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	323	94	14	37	11	659	109	446	27	10	760	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	323	94	14	37	11	659	109	446	27	10	760	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	323	94	14	37	11	659	109	446	27	10	760	40
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	3229	171
Capacity Analysis Module:												
Vol/Sat:	0.19	0.03	0.01	0.02	0.00	0.39	0.06	0.13	0.02	0.01	0.24	0.24
Crit Moves:	****					****	****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Health Sciences Road at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.326
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Street Name:	Health Sciences Road						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	10	1	28	12	3	18	133	645	4	66	343	84
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	11	1	30	13	3	19	141	684	4	70	364	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	1	30	13	3	19	141	684	4	70	364	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	1	30	13	3	19	141	684	4	70	364	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	1	30	13	3	19	141	684	4	70	364	89
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.26	0.02	0.72	0.80	0.20	1.00	1.00	1.99	0.01	1.00	1.61	0.39
Final Sat.:	436	44	1221	1360	340	1700	1700	3379	21	1700	2731	669
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.01	0.01	0.01	0.08	0.20	0.20	0.04	0.13	0.13
Crit Moves:	****			****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Health Sciences Road at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.364
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 19 Level Of Service: A

Street Name:	Health Sciences Road						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	2	1	63	99	1	142	20	464	1	10	611	24
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	2	1	67	105	1	151	21	492	1	11	648	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1	67	105	1	151	21	492	1	11	648	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1	67	105	1	151	21	492	1	11	648	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	2	1	67	105	1	151	21	492	1	11	648	25
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.02	0.95	0.99	0.01	1.00	1.00	1.99	0.01	1.00	1.92	0.08
Final Sat.:	52	26	1623	1683	17	1700	1700	3393	7	1700	3271	129
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.04	0.06	0.06	0.09	0.01	0.15	0.15	0.01	0.20	0.20
Crit Moves:	****			****			****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Peltason Drive at Bison Avenue/Physical Sciences Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.584
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Street Name:	Peltason Drive						Bison Ave/Physical Sciences Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	1 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	367	80	17	158	61	101	113	212	313	18	44	33
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	389	85	18	168	65	107	120	225	332	19	47	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	389	85	18	168	65	107	120	225	332	19	47	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	389	85	18	168	65	107	120	225	332	19	47	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	389	85	18	168	65	107	120	225	332	19	47	35
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	1.00	1.00	0.35	0.65	1.00	0.29	0.71	1.00
Final Sat.:	1700	1402	298	1700	1700	1700	591	1109	1700	494	1206	1700
Capacity Analysis Module:												
Vol/Sat:	0.23	0.06	0.06	0.10	0.04	0.06	0.20	0.20	0.20	0.04	0.04	0.02
Crit Moves:	****					****	****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 without the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Peltason Drive at Bison Avenue/Physical Sciences Road

Cycle (sec):	100	Critical Vol./Cap. (X):	0.647
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Street Name:	Peltason Drive						Bison Ave/Physical Sciences Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	1 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	343	127	15	96	110	156	170	72	417	74	142	130
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	364	135	16	102	117	166	180	76	442	79	151	138
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	364	135	16	102	117	166	180	76	442	79	151	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	364	135	16	102	117	166	180	76	442	79	151	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	364	135	16	102	117	166	180	76	442	79	151	138
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.89	0.11	1.00	1.00	1.00	0.70	0.30	1.00	0.34	0.66	1.00
Final Sat.:	1700	1520	180	1700	1700	1700	1194	506	1700	582	1118	1700
Capacity Analysis Module:												
Vol/Sat:	0.21	0.09	0.09	0.06	0.07	0.10	0.15	0.15	0.26	0.13	0.13	0.08
Crit Moves:	****					****		****			****	

APPENDIX C2
LOS COMPUTATION REPORTS
2009 WITH THE PROJECT

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 California Avenue at University Drive

Cycle (sec): 100 Critical Vol./Cap. (X): 0.946
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 125 Level Of Service: E

Street Name:	California Avenue						University Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0	0	1	0 0	0	0 0	0	0 2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	33	0	69	0	0	0	0	1075	339	820	1083	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	35	0	73	0	0	0	0	1140	360	870	1149	0
Added Vol:	1	0	2	0	0	0	0	0	3	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	0	75	0	0	0	0	1140	363	878	1149	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	0	75	0	0	0	0	1140	363	878	1149	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	0	75	0	0	0	0	1140	363	878	1149	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	36	0	75	0	0	0	0	1140	363	878	1149	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3400	0	1700	0	0	0	0	3400	1700	1700	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.34	0.21	0.52	0.34	0.00
Crit Moves:			****					****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 California Avenue at University Drive

Cycle (sec): 100 Critical Vol./Cap. (X): 0.867
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: D

Street Name:	California Avenue						University Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 0	0	1	0 0	0	0 0	0 0	2	0 1	1 0	2	0 0
Volume Module:												
Base Vol:	130	0	665	0	0	0	0	1098	66	86	981	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	138	0	705	0	0	0	0	1165	70	91	1041	0
Added Vol:	2	0	7	0	0	0	0	0	1	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	0	712	0	0	0	0	1165	71	94	1041	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	140	0	712	0	0	0	0	1165	71	94	1041	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	0	712	0	0	0	0	1165	71	94	1041	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	140	0	712	0	0	0	0	1165	71	94	1041	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3400	0	1700	0	0	0	0	3400	1700	1700	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.42	0.00	0.00	0.00	0.00	0.34	0.04	0.06	0.31	0.00
Crit Moves:			****					****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 MacArthur Boulevard at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.795
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	MacArthur Boulevard						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Ovl			Ignore			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	4 0	1	2 0	4 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	352	3411	128	54	2598	267	305	217	127	405	180	56
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	373	3619	136	57	2756	283	324	230	135	430	191	59
Added Vol:	0	0	5	3	0	0	0	3	0	1	1	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	373	3619	141	60	2756	283	324	233	135	431	192	60
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	373	3619	0	60	2756	283	324	233	0	431	192	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	373	3619	0	60	2756	283	324	233	0	431	192	60
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	373	3619	0	60	2756	283	324	233	0	431	192	60
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	6800	1700	3400	6800	1700	3400	3400	1700	3400	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.11	0.53	0.00	0.02	0.41	0.17	0.10	0.07	0.00	0.13	0.06	0.04
Crit Moves:	****			****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 MacArthur Boulevard at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.772
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	C

Street Name:	MacArthur Boulevard						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Ovl			Ignore			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	4 0	1	2 0	4 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	291	3041	119	161	2538	310	267	254	137	373	371	53
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	309	3226	126	171	2693	329	283	269	145	396	394	56
Added Vol:	0	0	2	1	0	0	0	1	0	5	2	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	309	3226	128	172	2693	329	283	270	145	401	396	58
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	309	3226	0	172	2693	329	283	270	0	401	396	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	309	3226	0	172	2693	329	283	270	0	401	396	58
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Vol.:	309	3226	0	172	2693	329	283	270	0	401	396	58
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	6800	1700	3400	6800	1700	3400	3400	1700	3400	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.09	0.47	0.00	0.05	0.40	0.19	0.08	0.08	0.00	0.12	0.12	0.03
Crit Moves:	****			****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 SR 73 Southbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.535
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Street Name:	SR 73 Southbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	2 0	0	0 1	0 0	2	0 1	2 0	2	0 0
Volume Module:												
Base Vol:	0	0	0	1105	0	251	0	411	67	14	397	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	1172	0	266	0	436	71	15	421	0
Added Vol:	0	0	0	13	0	0	0	11	0	1	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1185	0	266	0	447	71	16	423	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	1185	0	0	0	447	71	16	423	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1185	0	0	0	447	71	16	423	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1185	0	0	0	447	71	16	423	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	3400	0	1700	0	3400	1700	3400	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.13	0.04	0.00	0.12	0.00
Crit Moves:				****				****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 SR 73 Southbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.405
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Street Name:	SR 73 Southbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 0 0 0			2 0 0 0 1			0 0 2 0 1			2 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	373	0	170	0	249	220	316	574	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	396	0	180	0	264	233	335	609	0
Added Vol:	0	0	0	5	0	0	0	4	0	5	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	401	0	180	0	268	233	340	618	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	401	0	0	0	268	233	340	618	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	401	0	0	0	268	233	340	618	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	401	0	0	0	268	233	340	618	0
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	3400	0	1700	0	3400	1700	3400	3400	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.08	0.14	0.10	0.18	0.00
Crit Moves:				****					****	****		

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 SR 73 Northbound Ramps at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.623
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 30 Level Of Service: B

Street Name:	SR 73 Northbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 1! 0	1	0	0 0 0 0	0	1	0 2	0 0	0	0 2	0 1
Volume Module:												
Base Vol:	226	0	300	0	0	0	63	1460	0	0	168	217
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	240	0	318	0	0	0	67	1549	0	0	178	230
Added Vol:	0	0	5	0	0	0	0	24	0	0	4	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	240	0	323	0	0	0	67	1573	0	0	182	233
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	240	0	323	0	0	0	67	1573	0	0	182	233
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	0	323	0	0	0	67	1573	0	0	182	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	240	0	323	0	0	0	67	1573	0	0	182	233
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.27	0.01	1.72	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	2172	0	2928	0	0	0	1700	3400	0	0	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.11	0.00	0.00	0.00	0.04	0.46	0.00	0.00	0.05	0.14
Crit Moves:	****							****		****		

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 SR 73 Northbound Ramps at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.651
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	B

Street Name:	SR 73 Northbound Ramps						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	110	0	27	0	0	0	51	515	0	0	779	845
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	117	0	29	0	0	0	54	546	0	0	826	896
Added Vol:	0	0	2	0	0	0	0	9	0	0	14	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	0	31	0	0	0	54	555	0	0	840	908
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	0	31	0	0	0	54	555	0	0	840	908
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	0	31	0	0	0	54	555	0	0	840	908
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	117	0	31	0	0	0	54	555	0	0	840	908
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3400	0	1700	0	0	0	1700	3400	0	0	3400	1700
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.02	0.00	0.00	0.00	0.03	0.16	0.00	0.00	0.25	0.53
Crit Moves:	****						****					****

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 California Avenue at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.701
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: C

Street Name:	California Avenue						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	18	11	7	57	76	55	786	721	238	11	300	61
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	19	12	7	60	81	58	834	765	252	12	318	65
Added Vol:	0	0	0	11	0	0	0	29	0	0	7	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	12	7	71	81	58	834	794	252	12	325	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	12	7	71	81	58	834	794	252	12	325	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	12	7	71	81	58	834	794	252	12	325	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	19	12	7	71	81	58	834	794	252	12	325	67
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.66	0.34
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	2821	579
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.00	0.04	0.02	0.03	0.49	0.23	0.15	0.01	0.12	0.12
Crit Moves:	****			****			****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 California Avenue at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.937
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 115 Level Of Service: E

Street Name:	California Avenue						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	304	89	13	35	10	621	103	420	25	9	716	38
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	323	94	14	37	11	659	109	446	27	10	760	40
Added Vol:	0	0	0	4	0	0	0	10	0	0	26	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	323	94	14	41	11	659	109	456	27	10	786	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	323	94	14	41	11	659	109	456	27	10	786	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	323	94	14	41	11	659	109	456	27	10	786	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	323	94	14	41	11	659	109	456	27	10	786	49
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1700	3400	1700	1700	3400	1700	1700	3400	1700	1700	3199	201
Capacity Analysis Module:												
Vol/Sat:	0.19	0.03	0.01	0.02	0.00	0.39	0.06	0.13	0.02	0.01	0.25	0.25
Crit Moves:	****					****	****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Health Sciences Road at Bison Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.327
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 18 Level Of Service: A

Street Name:	Health Sciences Road						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	10	1	28	12	3	18	133	645	4	66	343	84
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	11	1	30	13	3	19	141	684	4	70	364	89
Added Vol:	0	0	0	3	0	9	40	0	0	0	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	1	30	16	3	28	181	684	4	70	364	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	11	1	30	16	3	28	181	684	4	70	364	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	1	30	16	3	28	181	684	4	70	364	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	1	30	16	3	28	181	684	4	70	364	102
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.26	0.02	0.72	0.83	0.17	1.00	1.00	1.99	0.01	1.00	1.56	0.44
Final Sat.:	436	44	1221	1414	286	1700	1700	3379	21	1700	2655	745
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.01	0.01	0.02	0.11	0.20	0.20	0.04	0.14	0.14
Crit Moves:	****			****			****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Health Sciences Road at Bison Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.380
Loss Time (sec):	5 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	Level Of Service:	A

Street Name:	Health Sciences Road						Bison Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	2	1	63	99	1	142	20	464	1	10	611	24
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	2	1	67	105	1	151	21	492	1	11	648	25
Added Vol:	0	0	0	12	0	35	14	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1	67	117	1	186	35	492	1	11	648	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1	67	117	1	186	35	492	1	11	648	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1	67	117	1	186	35	492	1	11	648	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	2	1	67	117	1	186	35	492	1	11	648	30
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.02	0.95	0.99	0.01	1.00	1.00	1.99	0.01	1.00	1.91	0.09
Final Sat.:	52	26	1623	1685	15	1700	1700	3393	7	1700	3247	153
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.04	0.07	0.07	0.11	0.02	0.15	0.15	0.01	0.20	0.20
Crit Moves:	****			****			****				****	

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Peltason Drive at Bison Avenue/Physical Sciences Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.591
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Street Name:	Peltason Drive						Bison Ave/Physical Sciences Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	1 0	1	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	367	80	17	158	61	101	113	212	313	18	44	33
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	389	85	18	168	65	107	120	225	332	19	47	35
Added Vol:	11	0	0	0	0	1	0	0	2	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	400	85	18	168	65	108	120	225	334	19	48	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	400	85	18	168	65	108	120	225	334	19	48	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	85	18	168	65	108	120	225	334	19	48	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	400	85	18	168	65	108	120	225	334	19	48	35
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	1.00	1.00	0.35	0.65	1.00	0.29	0.71	1.00
Final Sat.:	1700	1402	298	1700	1700	1700	591	1109	1700	486	1214	1700
Capacity Analysis Module:												
Vol/Sat:	0.24	0.06	0.06	0.10	0.04	0.06	0.20	0.20	0.20	0.04	0.04	0.02
Crit Moves:	****						****	****			****	

UCI Telemedicine / Prime LC Facilities Project
2009 with the Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Peltason Drive at Bison Avenue/Physical Sciences Road

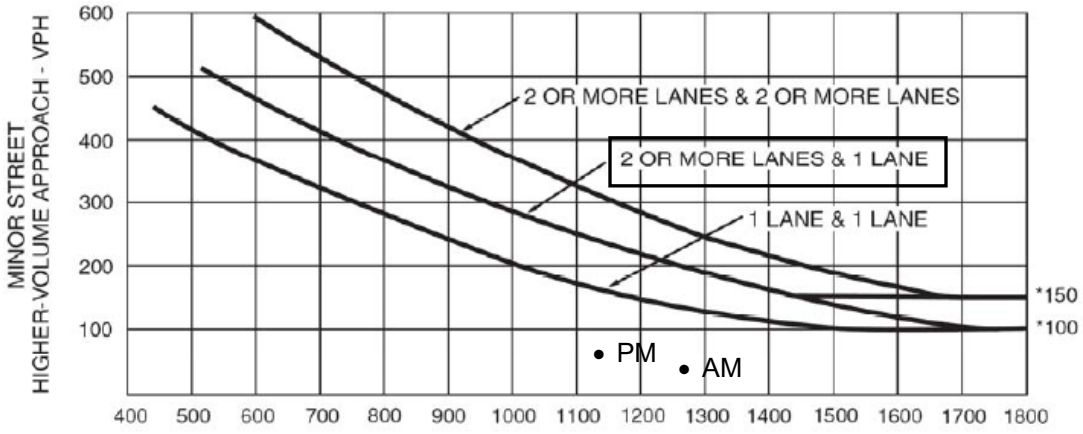
Cycle (sec): 100 Critical Vol./Cap. (X): 0.651
Loss Time (sec): 5 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Street Name:	Peltason Drive						Bison Ave/Physical Sciences Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	1 0	1	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	343	127	15	96	110	156	170	72	417	74	142	130
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	364	135	16	102	117	166	180	76	442	79	151	138
Added Vol:	4	0	0	0	0	0	1	1	9	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	368	135	16	102	117	166	181	77	451	79	151	138
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	368	135	16	102	117	166	181	77	451	79	151	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	368	135	16	102	117	166	181	77	451	79	151	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	368	135	16	102	117	166	181	77	451	79	151	138
Saturation Flow Module:												
Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.89	0.11	1.00	1.00	1.00	0.70	0.30	1.00	0.34	0.66	1.00
Final Sat.:	1700	1520	180	1700	1700	1700	1192	508	1700	582	1118	1700
Capacity Analysis Module:												
Vol/Sat:	0.22	0.09	0.09	0.06	0.07	0.10	0.15	0.15	0.27	0.13	0.13	0.08
Crit Moves:	****					****	****				****	

APPENDIX D
SIGNAL WARRANT ANALYSES

Figure 4C-3. Warrant 3, Peak Hour

6. Health Sciences Road (northbound) at Bison Avenue
2007 Existing Conditions



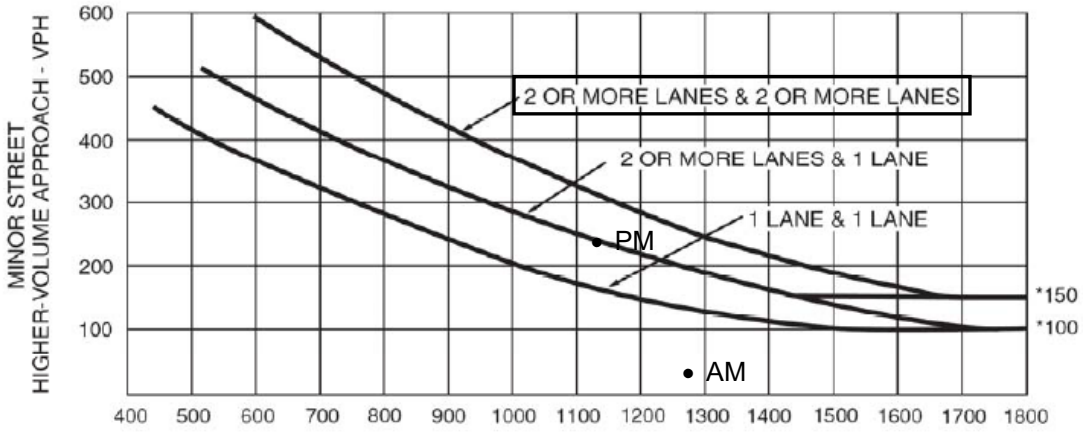
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

	AM	PM
Bison Avenue	1275	1130
Health Sciences Road	39	66
Meets Warrants?	No	No

Figure 4C-4 Removed

Figure 4C-3. Warrant 3, Peak Hour

6. Health Sciences Road (southbound) at Bison Avenue
2007 Existing Conditions



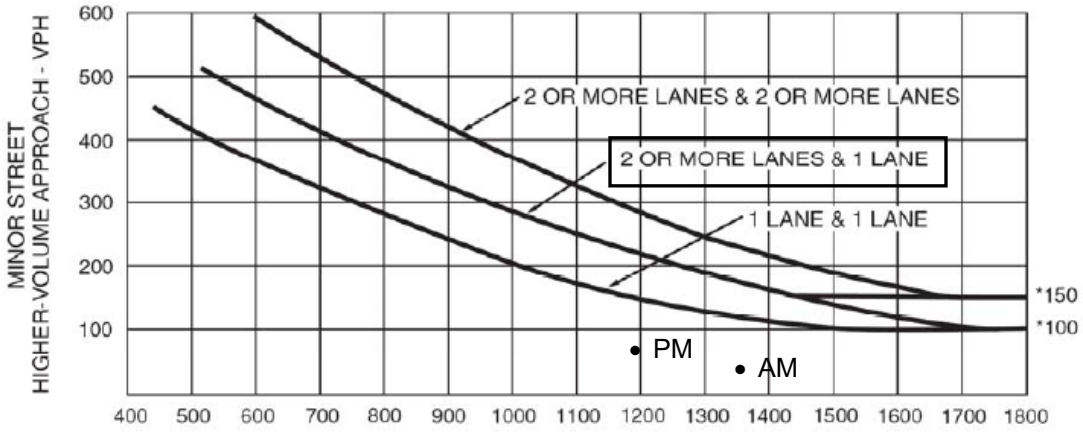
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

	AM	PM
Bison Avenue	1275	1130
Health Sciences Road	33	242
Meets Warrants?	No	No

Figure 4C-4 Removed

Figure 4C-3. Warrant 3, Peak Hour

6. Health Sciences Road (northbound) at Bison Avenue
2009 without the Project



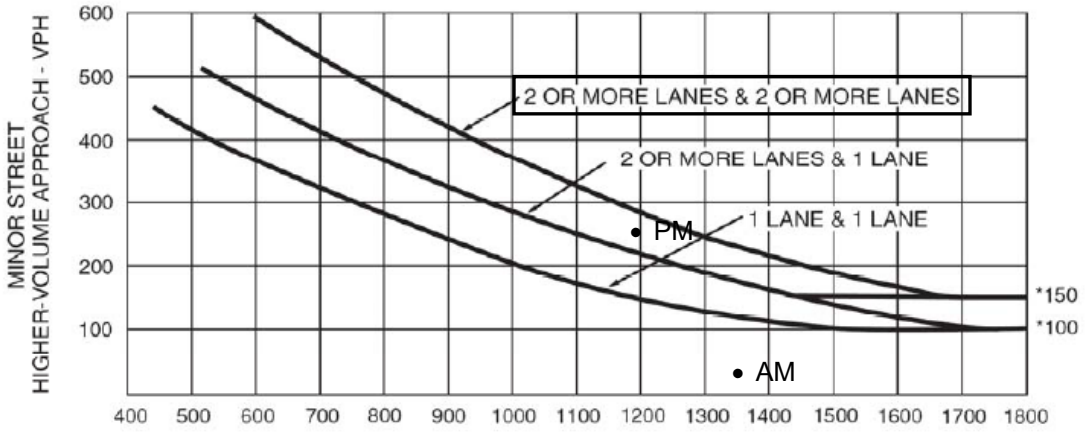
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

	AM	PM
Bison Avenue	1352	1198
Health Sciences Road	42	70
Meets Warrants?	No	No

Figure 4C-4 Removed

Figure 4C-3. Warrant 3, Peak Hour

6. Health Sciences Road (southbound) at Bison Avenue
2009 without the Project



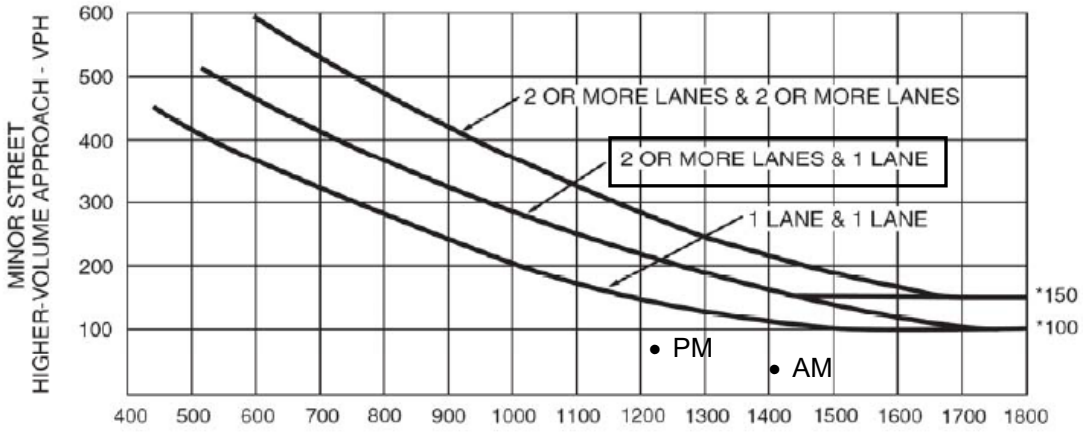
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

	AM	PM
Bison Avenue	1352	1198
Health Sciences Road	35	257
Meets Warrants?	No	No

Figure 4C-4 Removed

Figure 4C-3. Warrant 3, Peak Hour

6. Health Sciences Road (northbound) at Bison Avenue
2009 with the Project



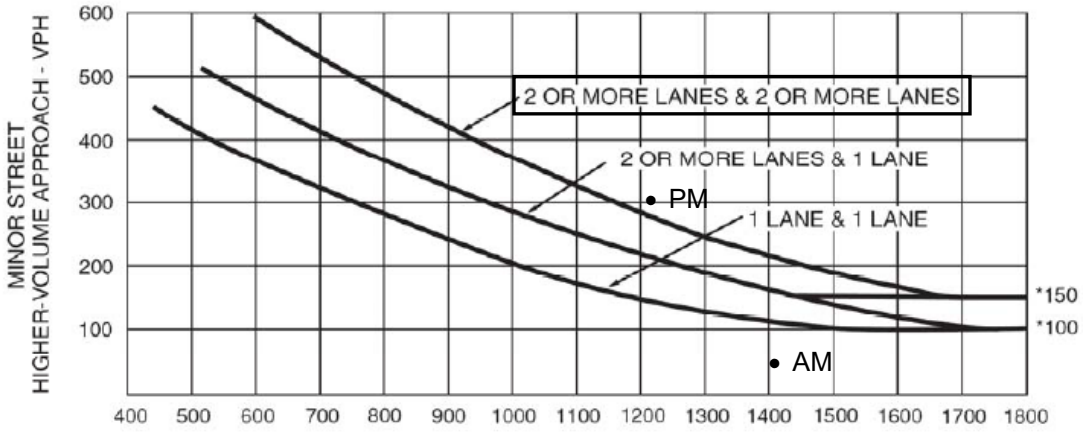
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

	AM	PM
Bison Avenue	1405	1217
Health Sciences Road	42	70
Meets Warrants?	No	No

Figure 4C-4 Removed

Figure 4C-3. Warrant 3, Peak Hour

6. Health Sciences Road (southbound) at Bison Avenue
2009 with the Project



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

	AM	PM
Bison Avenue	1405	1217
Health Sciences Road	47	304
Meets Warrants?	No	Yes

Figure 4C-4 Removed