



DRAFT INITIAL STUDY
&
MITIGATED NEGATIVE DECLARATION

ARTS BUILDING

Project No. 991072

Office of Campus & Environmental Planning

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July 19, 2007

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ENVIRONMENTAL CHECKLIST FORM

University of California

Campus: Irvine

Project No. 991072

I. PROJECT INFORMATION

1. Project title:

Arts Building

2. Lead agency name and address:

University of California, Irvine
Office of Campus & Environmental Planning
750 University Tower
Irvine, CA 92697-2325

3. Contact person and phone number:

Mr. Alex S. Marks, AICP, Associate Planner
949.824.8692

4. Project location:

As shown in Exhibit 1, the University of California, Irvine (UCI) is located in central/coastal Orange County, in the southern portion of the City of Irvine. The campus is bordered by the Cities of Irvine (north and east) and Newport Beach (south and west). As shown in Exhibit 2, the proposed project would be built on two sites located in the developed School of the Arts complex, in the northern part of the academic core area of the UCI campus. As shown on Exhibit 3, one building is to be constructed at the site of the Arts Trailer and the other in an area between Mesa Road and the Production Studio.

5. Project sponsor's name and address:

See responses to 2 and 3, above

6. Custodian of the administrative record for this project:

Mr. Alex S. Marks, AICP, University of California, Irvine (see number 3, above).

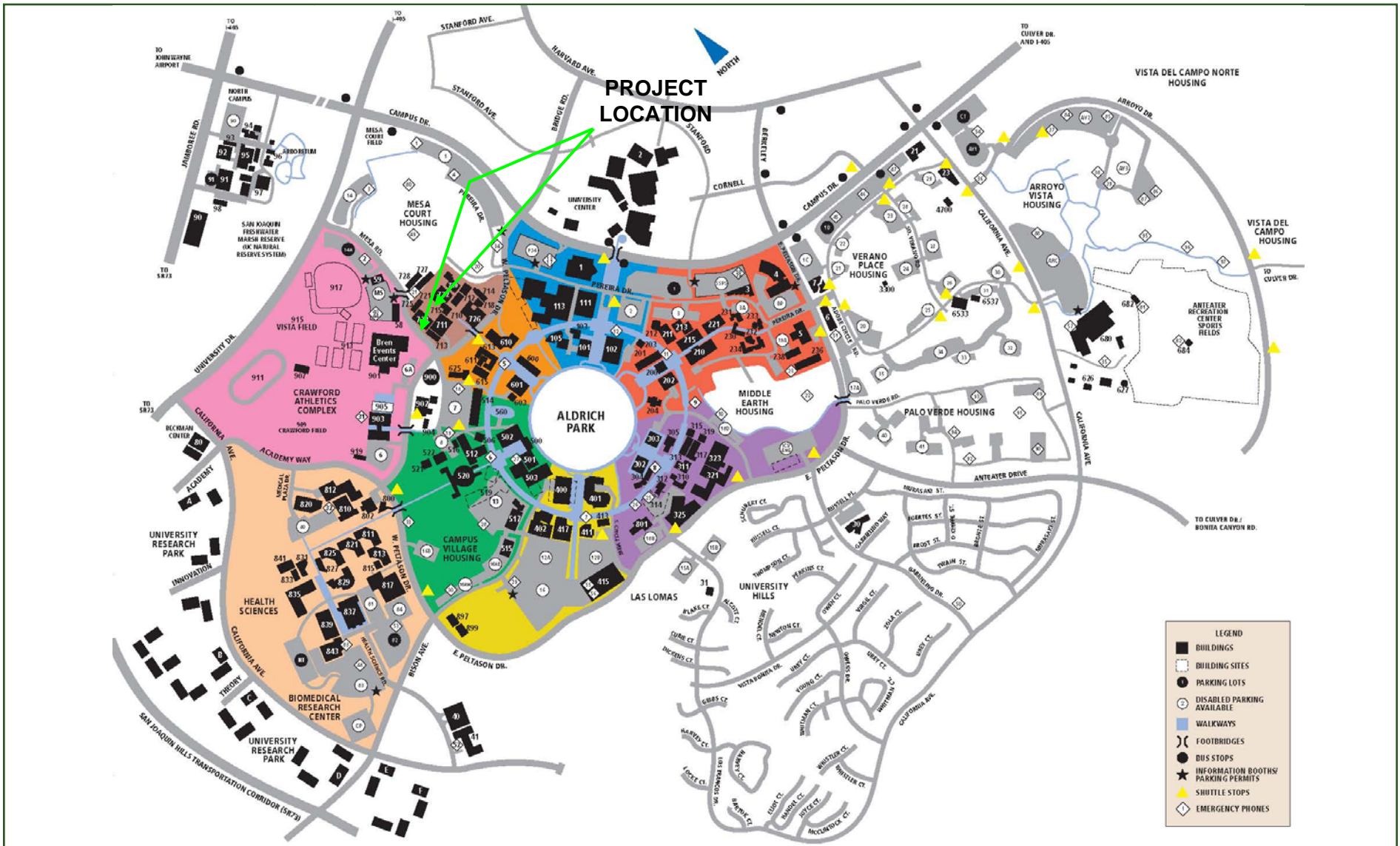


Source: University of California, Irvine 2007

Exhibit 1

Regional Location Map

UCI Arts Building IS/MND

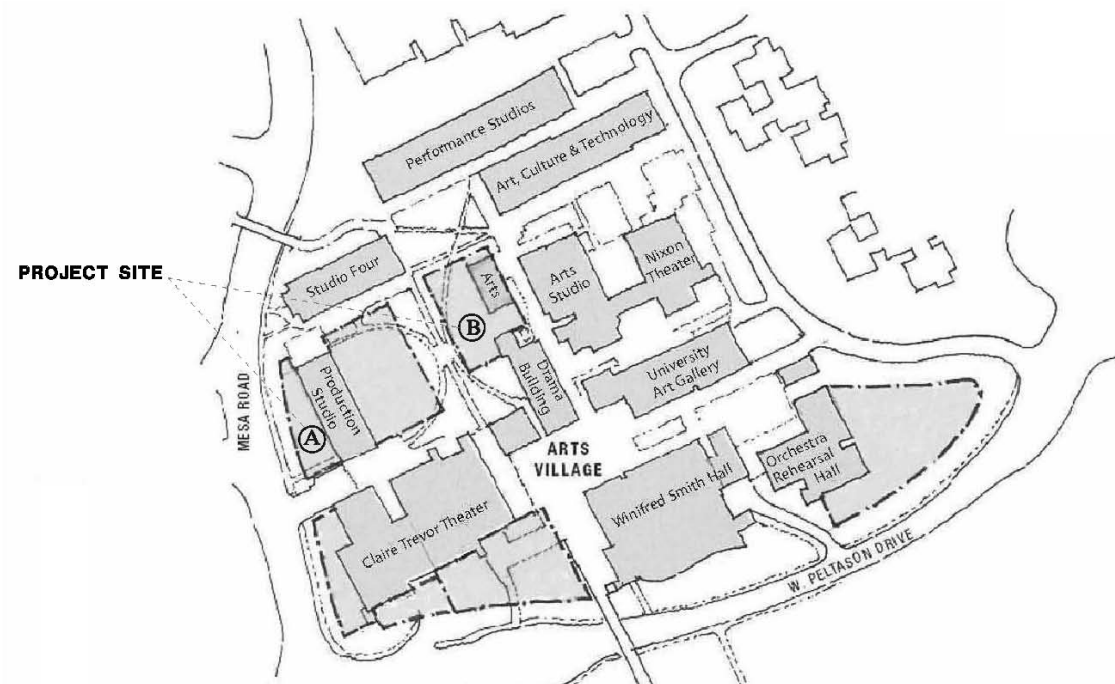


Source: University of California, Irvine 2007

Exhibit 2

Project Location on UCI Campus

UCI Arts Building IS/MND



Source: University of California, Irvine. July 2007

Exhibit 3

Proposed Building Sites

UCI Arts Building IS/MND

II. PROJECT DESCRIPTION

1. Description of project:

The proposed project would construct two structures referred to herein as Buildings A and B, which together would accommodate 59 new faculty/staff and 360 students and provide approximately 41,630 assignable square feet (ASF) of new teaching, support, research, and exhibition space for the Claire Trevor School of the Arts, located in the Arts Village area of UCI's Humanities/Arts Quadrangle (Quad). The proposed project would add approximately 68,550 gross square feet (GSF) of building space to the Arts Village, increasing its total building area to 178,435 ASF, or about 296,373 GSF.

Building A, one-story, and consisting of 7,500GSF and 4,500ASF would be built between Mesa Road and the Production Studio. Building B would replace the existing Arts Trailer and be approximately 61,050 GSF and 36,830ASF. The building would be five stories (approximately 77 feet high) along its western side, and four stories (approximately 65 feet high) at its eastern side. The structurally sound Arts Trailer (1,600GSF) is to be relocated to another as yet undefined site on campus. Exhibit 4 illustrates the conceptual site plan and a preliminary, conceptual elevation rendering of Building B. Please note that the site plan and elevations are subject to refinement during the design/build process.

In addition to construction of the two buildings, site development would include excavation of approximately 8,760 cubic yards of earth material, connections to existing campus utility and drainage systems, and landscape/hardscape improvements. Vehicular access to both construction sites is available via Mesa Road and service driveways adjacent the Production Studio. The open lawn area, immediately east of the Production Studio, will be used as the Project's primary staging and laydown area and be restored upon project completion. A remote construction laydown area will be located within a portion of Parking Lot 14A, just north of the Mesa Parking Structure (see aerial view in Exhibit 3). The laydown area will occupy approximately 19,000 square feet this parking lot, for some portion of the construction program. It will be used for container storage of tools and equipment, and also for storage of interior fixtures to be installed during the finish stages of the project.

Proposed building space allocations are summarized in Table 1. Please note that the Stage Properties, Electrical and Scene Shops listed under Production Support will be located in Building A. All other spaces are allocated to Building B.

Site: Several key factors were considered in the selection of the two building sites:

- Enhancement of the School of the Arts image from Mesa Road
- Completion of the primary pedestrian spine from the Mesa Road bridge to the Maya Lin Arts Plaza and beyond
- Proximity to existing utilities within the primary pedestrian spine

Utilities: Utilities in both buildings will include conventional HVAC, electrical, telecommunications, chilled and high temperature hot domestic water, gas, sewer, and compressed air. These services currently exist adjacent to the Project sites. No capacity increases to the existing campus utility networks will be required to support the project. Sustainable development practices will be incorporated into the utility elements of the project as feasible, such as natural ventilation methods.

Sustainability: This project will comply with the University of California Policy on Green Building Design and Clean Energy Standards, approved by The Regents at their July 2003 meeting, as well as the 2004 Presidential Policy for Green Building Design and Clean Energy Standards.

Construction Schedule: Construction on both buildings would begin in early 2008 and be completed by Spring 2010. Both would be operational at approximately the same time.

Table 1: Arts Building Space Program (ASF)

Space Type	Assignable Square Feet (ASF)
Teaching Space	
<i>Class Laboratory</i>	1,000
Digital Arts Teaching Laboratory	
<i>Open Class Laboratory</i>	7,800
Drama Sound Design Studio	
Electronic Music Studio	
Motion Capture Studio	
Open-Access Computer Laboratory	
Mixed-Media Performance Space	
Acting/Musical Theatre Rehearsal Studios	
<i>Open Class Lab Service</i>	6,600
Digital Support Laboratory	
Server Room	
Projection/Storage	
Production Support (Costume, Stage Properties, Electrical, Scene Shops)	
Subtotal	15,400
Research Laboratory and Studio	
<i>Research Laboratory</i>	1,100
Faculty/Grad Digital Research Laboratory	
Faculty/Grad Media Production	
<i>Research Studio</i>	8,200
Drama Visual Design Studio	
MFA Art Studio	
<i>Colloquium Room</i>	1,300
Subtotal	10,600
Exhibition and Support	4,000
Academic and Administrative Office and Support	
<i>Academic Office</i>	3,000
<i>Administrative Office and Support</i>	2,400
<i>Administrative Office and Support Space (Mesa Arts Replacement Space)</i>	2,600
Subtotal	8,000
Surge Space	3,860
Total – Arts Building	41,630

Source: UCI Design & Construction Services, July 2007

2. Project objectives:

Student enrollment in the School of the Arts is projected to increase by approximately 360 full-time equivalent undergraduate and graduate students, between academic year 2005/2006 and 2010/2011. Another 19 faculty positions are required to alleviate existing shortages and to meet increased demands of higher student enrollment.

This project will provide the following programmatic objectives:

- Additional studios, laboratories, and other instructional support space needed to accommodate existing and projected Arts programs and enrollments.
- New types of technology-based instructional, research, and performance spaces necessary to accommodate changes in Arts programs and enrollments.
- Exhibition and production support space to accommodate Arts performances and presentations.
- Space to accommodate new faculty required to support enrollment growth in the Arts program.

Project design objectives include:

- Building massing that compliments adjacent buildings.
- Taking advantage of the slope on the proposed site for Building B.
- Grouping of spaces with similar volumetric needs and acoustic requirements.

3. Surrounding land uses and environmental setting:

The proposed building sites are located in the heart of the developed Arts Village portion of the Arts/Humanities Quad, in the northern periphery of the academic core, as shown in Exhibit 2. Photographs of the sites are presented in Exhibits 5 and 6. The site for Building A is a flat landscaped yard immediately west of the existing Production Studio abutting Mesa Road. As shown in Exhibit 5, there are seven eucalyptus trees, various shrubs adjacent the Production Studio, and grass covering the site. The site for Building B, slightly less than ¼ acre, consists of a flat area where the Arts Trailer and several landscape planters are located and a downward sloping lawn immediately west. Along the eastern side is the primary north/south pedestrian pathway within the Arts Village. The western edge of this site is next to a minor north-south pedestrian path.

Land Uses Surrounding Proposed Building Sites

North.....	Loading dock, Studio Four and walkway
South.....	Loading dock, walkway and Claire Trevor Theater
East	Walkway, Arts Studio and Art, Culture & Technology Building
West	Mesa Road, Bren Events Center and Mesa parking structure

4. Project Approval:

University of California

As a public agency principally responsible for approving or carrying out the proposed project, the

University of California (University) is the Lead Agency under CEQA and is responsible for reviewing and certifying the adequacy of the environmental document and approving the design of the proposed Project. The purpose of this Initial Study (IS) document is to evaluate the potential environmental effects of the proposed Project in order to determine whether to prepare an environmental impact report or a negative declaration. The IS evaluates the Project, the potential environmental effects associated with its construction and 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 Project, with mitigation incorporated, will not result in any potentially significant environmental effects. The IS and a draft mitigated negative declaration (MND) will be circulated for public review and comment prior to consideration of the MND and any public comments and responses, and approval of the Project by the University. It is anticipated that the Board of Regents of the University of California (The Regents) will consider the proposed Project for approval in September 2007.

Santa Ana Regional Water Quality Control Board (RWQCB)

Following project approval by the Regents and prior to the commencement of any site clearing and grading, the University will prepare a Stormwater Pollution and Prevention Plan (SWPPP) to define best management practices for the project. If the total construction area exceeds one acre, the University will file a Notice of Intent with the RWQCB. This filing will comply with the implementing regulations for the National Pollutant Discharge Elimination System program, established pursuant to Section 402 of the federal Clean Water Act

5. Consistency with the LRDP and LRDP EIR:

Each campus of the University of California is required to prepare a Long Range Development Plan (LRDP) that sets forth concepts, principles, and plans to guide future growth of that campus. UC Irvine's current LRDP was adopted by The Regents in 1989. A comprehensive LRDP update and associated LRDP Program EIR is being prepared, concurrent to the proposed project.

Relationship to the 1989 LRDP

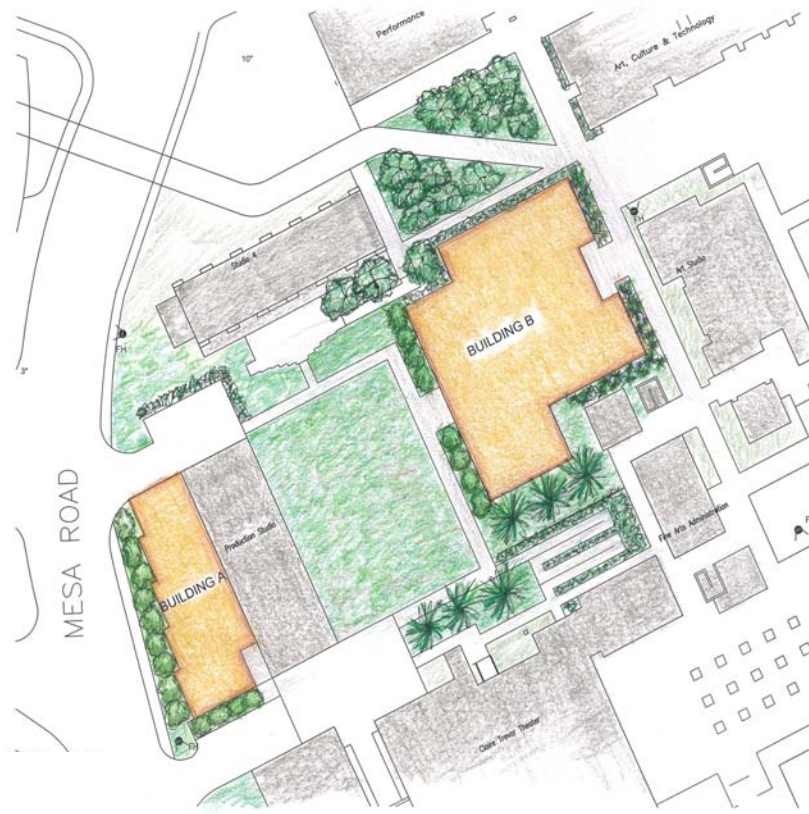
The proposed project is consistent with the current LRDP land use policies for the Quad. Upon completion of the project total building space in the Quad would be approximately 551,451 GSF, which is below the 577,900 GSF envisioned in the LRDP. The proposed project would not conflict with any goals or objectives of the 1989 LRDP. Even with the approximately 360 students that would be accommodated by this project, total enrollment on the UCI campus would be below the level projected in the 1989 LRDP.

Relationship to the Draft 2007 LRDP

As stated above, a comprehensive update to the LRDP – the Draft 2007 LRDP – is currently underway to address the UC Irvine campus physical development needs through the horizon year 2025-26. Within the Central Academic Core Area housing academic and support uses, including the School of Arts complex, the Draft 2007 LRDP is generally consistent with the 1989 LRDP and would accommodate the proposed project without exceeding space allocations.

Relationship to the 1989 LRDP EIR and the Draft 2007 LRDP EIR

This IS/MND for the Arts Building is an independent CEQA analysis and is neither tiered from the 1989 LRDP EIR, as amended, or the Draft 2007 LRDP EIR being prepared; however, studies and analyses performed for the 1989 LRDP EIR are relied upon as applicable for background and setting information. The 1989 LRDP EIR, as amended, is hereby incorporated by reference into this Initial Study. Technical studies performed for the Draft 2007 LRDP EIR have been reviewed to assist in some of the impact analyses for this project. All of the potential impacts and mitigation associated with this project are discussed in this IS/MND. It is anticipated that if the Arts Building were to be approved by the Regents, construction of the project would occur after the 2007 LRDP Update has been considered by The Regents for approval.



Conceptual Site Plan

Materials

- Masonry at Base
- Exterior Plaster
- Low E Glass in Aluminum Windows Frames



Conceptual Elevation-Building B

Source: UCI Design & Construction Services, July, 2007

Exhibit 4

Preliminary Site Plan and Building Elevation

UCI Arts Building IS/MND



View east of proposed building site and west side of Production Studio, from west side of Mesa Road.



View north through proposed building site, from adjacent service drive on east side of Mesa Road.

Exhibit 5

Photographs of Building Site A

UCI Arts Building IS/MND



View northeast toward building site, from walkway in open yard area between Claire Trevor Theater and Production Studio. Arts Trailer to be removed is visible in middle of this view.

View east, toward northern edge of building site, from east/west walkway near Studio Four. Hedge row in middle of view is along the edge of the Arts Trailer. Taller Arts Studio is visible just beyond the Arts Trailer.



View south along primary pedestrian spine bordered by Arts Studio on the left and Arts Trailer (foreground) and Drama Building (background) on the right.

Exhibit 6

Photographs of Building Site B

UCI Arts Building IS/MND

III. 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.

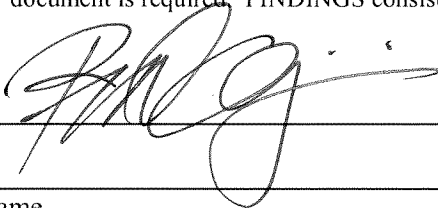
- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

IV. 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

7.19.07

Printed Name

For

V. EVALUATION OF ENVIRONMENTAL IMPACTS

Purpose of the Initial Study

This Initial Study evaluates the Project, the potential environmental effects associated with its construction and 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 Project, with mitigation incorporated, will not result in any potentially significant environmental effects. The IS and a draft mitigated negative declaration (MND) will be circulated for public review and comment prior to consideration of the MND and any public comments and responses, and approval of the Project by the University. It is anticipated that the Board of Regents of the U of C (The Regents) will consider the proposed Project for approval in Fall 2007.

Response Column Heading Definitions

The next section of the Initial Study contains a detailed checklist consisting of questions associated with a variety of environmental topics. 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.

IMPACT QUESTIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS				
<i>Would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. AGRICULTURE RESOURCES				
<i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. AIR QUALITY				
<i>Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES				
<i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local applicable policies protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. CULTURAL RESOURCES				
<i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. GEOLOGY AND SOILS				
<i>Would the project:</i>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. HAZARDS AND HAZARDOUS MATERIALS				
<i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. HYDROLOGY AND WATER QUALITY				
<i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
9. LAND USE AND PLANNING				
<i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. MINERAL RESOURCES				
<i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. NOISE				
<i>Would the project result in:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
12. POPULATION AND HOUSING				
<i>Would the project:</i>				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. TRANSPORTATION/TRAFFIC				
<i>Would the project:</i>				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. UTILITIES AND SERVICE SYSTEMS				
<i>Would the project:</i>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. DISCUSSION OF IMPACT EVALUATION

1. AESTHETICS

Would the project:

- a) *Have a substantial adverse effect on a scenic vista?*

No impact. Located in the highly urbanized academic core area of the campus, the proposed main building site can only be seen from within the nearby parts of the Village of the Arts. This area is not part of any scenic vista. The smaller building site is within a small, landscaped yard area along Mesa Road, in a highly developed part of the campus. This area is not within any scenic vistas.

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

No Impact. There are no state scenic highways on the UCI campus. There are no rock outcroppings, trees, water bodies or any other unique and scenic natural or built features within or adjacent to the proposed main building site. The existing Arts Trailer does not have any important historic value, as defined in Section 15064.5 of the State CEQA Guidelines. There are seven mature eucalyptus trees in the yard area between the Production Studio and Mesa Road, where Building A is proposed. Those trees are of a common variety found throughout the campus and in many urbanized areas throughout southern California, and are not considered to be a scenic resource. This project would not damage any scenic resources or have any effects on scenic features along a state scenic highway.

- c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

Less Than Significant Impact. Because of its highly visible location along Mesa Road and the current landscaped yard characteristics, proposed construction of Building A would represent a substantial change from existing visual conditions. A landscape edge will be planted along Mesa Road to screen the side of the building and reduce the impact of the building mass. As part of the design/build process, exterior finish features will be developed to add interest and variety to further reduce the impact of the building mass. The building will be approximately the same height as the adjacent Production Studio, and will hide views of the blank wall of that building that is currently visible from Mesa Road. Rooftop equipment is not anticipated for this building.

Building B would consist of four levels on the upslope (eastern) side and five levels on the downslope (western) side and would be slightly higher than the existing structures in the Arts Village. This massing would be similar to and compatible with neighboring structures, which range from one to four levels. 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 neighboring buildings. Beyond those parameters, more specific building height, massing, materials, colors and other prominent visual features will be determined during the design/build phase of this project. Rooftop mechanical equipment will be located toward the center of the structure and away from the roof edges to minimize the visual impact. Such equipment will also be finished in a color that is compatible with the color palette of the new building. Landscaping and hardscape features will be constructed around this building to integrate with adjacent plaza and pedestrian areas.

Given the already fairly densely developed character of this part of the campus, the added building mass resulting from this project would not substantially degrade the visual character and quality of this site or surroundings.

- 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. There is a variety of building and pole-mounted outdoor lighting near each of the proposed building sites that provide illumination for pedestrian paths and building accents. This project would retain or replace several light pole-mounted lamp fixtures that currently illuminate the walkway along the eastern edge of the existing Arts Trailer site. Little or no change in outdoor lighting conditions, therefore, would occur at this site. No outdoor lighting elements occur at the smaller building site. The proposed building may include low intensity lighting fixtures to illuminate the building entry. Such lighting would generate illumination within a confined area that would not generate glare beyond the immediate range of the light fixture. The project site is internal to the campus and is therefore not located adjacent to housing or other land uses considered sensitive to night lighting. Windows and other glazing elements would not be made of reflective materials that could cause daytime glare from reflected sunlight. This project would have an insignificant effect involving outdoor lighting.

References

- Planning Research Network. *Field Survey*, June 7, 2007.

- Sasaki Associates, Inc. *Detailed Project Program, Arts Building*, June 2007.

2. AGRICULTURE RESOURCES

Would the project:

- 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?*
- Conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- 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 entire UCI campus is designated by the State Department of Conservation, Division of Land Resources Protection as “Urban and Built-Up” or “Other Land,” neither of which is considered farmland. There is no Williamson Act contract affecting the proposed sites or any adjacent land. The proposed building sites are in the fully urbanized academic core area of the campus, which was converted from undeveloped land to urban uses many years ago. This project would have no effect on existing farmland or any other kinds of agricultural uses, nor would it involve other changes to the environment that would result in the conversion of Farmland to non-agricultural use.

References

- California Department of Conservation, Division of Land Resource Protection. *Orange County Important Farmland 2002 (Map)*.

3. AIR QUALITY

Would the project:

- Conflict with or obstruct implementation of the applicable air quality plan?*

No Impact. UCI is within the South Coast Air Basin (SCAB), a territory defined by the California Air Resources Board (CARB) for air quality planning purposes that spans a 6,600 square mile area comprised of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The applicable air quality planning regulations for the SCAB are contained in a regional Air Quality Management Plan (AQMP), prepared by the South Coast Air Quality Management

District (SCAQMD) and the Southern California Association of Governments (SCAG).

To ensure continued progress toward achieving federal and state air quality standards, SCAQMD, together with the CARB, SCAG and the U.S. Environmental Protection Agency (EPA) are finalizing the 2007 AQMP. The SCAQMD governing board adopted this plan on June 1, 2007. The 2007 AQMP employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources and area sources. The plan proposes potential attainment demonstration of the federal PM_{2.5} standards through a more focused control of sulfur oxides (SO_x), directly-emitted PM_{2.5}, and nitrogen oxides (NO_x) supplemented with volatile organic compounds (VOC) by 2015. The 8-hour ozone control strategy builds upon the PM_{2.5} strategy, augmented with additional NO_x and VOC reductions to meet the standard by 2024. The 2007 AQMP proposes policies and measures currently contemplated by responsible agencies to achieve federal standards for healthful air quality in the Basin and those portions of the Salton Sea Air Basin (formerly named the Southeast Desert Air Basin) that are under District jurisdiction (namely, Coachella Valley).

The 2007 AQMP also addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools. This plan builds upon the approaches taken in the 2003 AQMP for the South Coast Air Basin to attain the federal ozone air quality standard; however, it is noted that significant amount of reductions are still required and there is an urgent need to identify additional strategies, especially concerning mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under federal Clean Air Act.

Key objectives of the 2007 AQMP include:

- Attainment of tougher federal standards for ozone and PM_{2.5}
- Reduce emissions from all sources, especially mobile sources, which generate the bulk of the remaining air quality impacts in the air basin
- Improve public health by reducing exposure to harmful levels of air pollutants, particularly in the form of fine particulate matter

- Increase the pace of efforts to reduce PM_{2.5} emissions through more aggressive mobile source control measures.

Since the proposed project is a relatively small infill project, consistent with the land use designation and intensity limits set forth in the UCI 1989 LRDP, it would not affect regional land use and transportation patterns or conflict with any of the AQMP strategies to reduce long-term emissions through land use and transportation control measures. As discussed in the next response, project-related construction and long-term emissions would not exceed recommended SCAQMD thresholds for any criteria pollutants. This project would not, therefore, conflict with or obstruct implementation of the regional AQMP due to an excessive amount of air pollutant emissions.

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

Air quality standards have been established by federal and state laws, pursuant to the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA) that are addressed in the regional AQMP, as discussed under item a. The SCAQMD regularly monitors air quality throughout the basin, to determine where those standards are being violated, and to measure changes in levels of air pollution over time. Monitored “criteria” pollutants include: carbon monoxide (CO), ozone (O₃), suspended particulate matter (PM₁₀), reactive organic gases (ROG), oxides of nitrogen (NO_x), oxides of sulfur (SO_x) and carbon monoxide (CO).

While the entire air basin shares some similar overall climatic features, differences exist throughout the region due to topographic features and distance from the Pacific Ocean. There are a number of distinct sub climates or microclimates based on these geographic differences. UCI is in the North Coast Orange County Source Receptor Area; the SCAQMD air monitoring station for this area is in the City of Costa Mesa. All emissions, except PM₁₀, are measured at this monitoring station. Saddleback Valley 1 monitoring station, located in Mission Viejo, is the nearest station that collects data on PM₁₀. Air quality monitoring data collected at the Costa Mesa monitoring station for the five-year period 2001-2005 show no exceedance of state or federal air quality standards for carbon monoxide, nitrogen dioxide or sulfur dioxide. The federal 8-hour ozone standard was exceeded one day each in 2003 and 2004, while the state 1-hour standard was exceeded once in 2001, four times in 2003 and twice in 2004. Levels of suspended particulates (PM₁₀) measured at the Mission Viejo air monitoring station exceeded state standards on two days in 2003, three times in 2001, and five times in 2002, while federal standards were not exceeded in

the five-year reporting period. Monitoring data for Year 2006 are incomplete and have not been published by the SCAQMD.

The proposed project would generate air pollutant emissions during the short-term construction phases and over the long-term, while the new facilities are fully occupied and operational, and thus would have a potential to violate or contribute to a violation of applicable air quality standards. Short-term and long-term impacts are assessed below.

Short-Term (Construction) Impacts

Less Than Significant with Mitigation Incorporated. During the construction phases, air pollutant emissions would occur from the following sources: exhaust from passenger-sized vehicles used by construction crew to arrive and depart from the campus; exhausts from a variety of gasoline- and/or diesel-fueled construction machinery and trucks; and particulate matter, including fugitive dust and other small bits of material that can become airborne during demolition, earth-moving, debris pushing, and contact between vehicle wheels and the ground. Other gaseous emissions would also occur during the building construction phases, as interior and exterior wall coatings and miscellaneous sealants are applied, and new paving is poured and spread.

Fugitive dust and engine exhaust generated during grading activities would constitute the highest levels of construction-related emissions. Total earthwork requirements will be finalized during the design/build phase; however, it is currently estimated that roughly 8,760 cubic yards (“cy”) of earth material will need to be excavated (about 1,000 cy at Site A and 7,760 cy at Site B), within a total grading disturbance area of less than 3/4 acre. Approximately 5,800 cy is to be exported to another site to be determined when a grading permit is issued. Grading and building construction emissions have been quantified, using standardized emission factors and equations developed by the CARB and the SCAQMD (see Appendix A). Estimated maximum daily emissions would be below SCAQMD thresholds, as shown in Table 2, below. The emissions totals reflect the benefits of the application of routine construction control measures established in SCAQMD Rules 402 and 403 and implemented as standard procedure for all campus projects. Applicable construction control measures to be implemented with this project are listed in Mitigation Measure 1.

Table 2: Daily Construction Emissions (Pounds/Day)

Construction Phases	ROG	NO_x	CO	PM 2.5	PM 10
Excavate & Haul	3.8	35.1	16.0	3.0	8.6
Construction and Finish Work	22.9	21.8	17.8	1.5	1.7
Significance Threshold	75	100	550	55	150
<i>Exceeds Threshold (?)</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Note: Emissions of sulfuric oxides (SO_x) would be less than 0.02 pound/day</i>					
ROG = Reactive Organic Gases NO _x = Oxides of Nitrogen CO = Carbon Monoxide PM 2.5 = Particulate Matter, 2.5 microns or smaller PM 10 = Particulate Matter, 10 microns or smaller					

Source: Giroux & Associates, July 2007

Mitigation Measure #1: Minimize Construction Emissions

All construction contractors shall comply with SCAQMD regulations, including Rule 403 and Rule 402, the Nuisance Rule. Specifically, the contractor will:

- a. Moisten soil more than 15 minutes prior to moving soil or watering as necessary to prevent visible dust emissions from exceeding 100 feet in any direction.
- b. Apply chemical stabilizers to disturbed surface areas (completed grading areas) within five days of completing grading or apply dust suppressants or vegetation sufficient to maintain a stabilized surface.
- c. Water open storage piles hourly or cover with temporary coverings.
- d. Water exposed surfaces at least twice a day under calm conditions and as often as needed on windy days when winds are less than 25 miles per hour or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction site.
- e. Wash mud-covered tires and under-carriages of trucks leaving construction sites.
- f. Provide for street sweeping, as needed on adjacent roadways, to remove dirt dropped by construction vehicles or mud, which would otherwise be carried off by trucks departing project sites.
- g. Securely cover loads of dirt with a tight fitting tarp on any truck leaving the construction sites to dispose of excavated soil.

- h. Cease grading during periods when winds exceed 25 miles per hour.
- i. Use low-sulfur diesel fuel in earth moving equipment and haul trucks.
- j. Turn off construction trucks and large equipment if they are idle for more than five minutes.
- k. Install soot traps on all diesel-powered equipment that exceed 100 horsepower, unless demonstrated to be infeasible for this project.
- l. Ground cover in areas disturbed shall be replaced as quickly as possible.
- m. Areas of the construction site that will remain inactive for three months or longer shall receive appropriate BMP treatments (e.g. revegetation, mulching, covering with tarps, etc.) immediately after clearing, grubbing, and/or grading to prevent fugitive dust generation.
- n. Where feasible, the construction contractor shall use alternatively fueled construction equipment, such as electric or natural gas-powered equipment or biofuel.
- o. Heavy construction equipment shall use low NO_x diesel fuel and construction equipment to the extent that it is readily available at the time of construction.
- p. To the extent feasible, construction activities shall rely on the campus's existing electricity infrastructure rather than electrical generators powered by internal combustion engines.
- q. The construction contractor shall develop a construction traffic management plan that includes the following:
 - Scheduling heavy-duty truck deliveries to avoid peak traffic periods
 - Consolidating truck deliveries
 - Providing dedicated turn lanes for movement of construction trucks and equipment on- and off-site.
- r. The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew.
- s. Where possible, the construction contractor shall provide a lunch shuttle or on-site lunch service for construction workers.
- t. The construction contractor shall, to the extent possible, use pre-coated architectural materials that do not require painting. Water-based or low VOC coatings shall be used that are compliant with SCAQMD Rule 1113. Spray equipment with high transfer efficiency, such as the high volume-low pressure spray method, or manual coatings application will be used to reduce VOC emissions to the extent possible.

- u. The construction contractor shall maintain signage along the construction perimeter with the name and telephone number of the individual in charge of implementing the construction emissions mitigation plan, and with the telephone number of the SCAQMD's complaint line. The contractor's representative shall maintain a log of public complaints and corrective actions taken to resolve complaints.

During the building construction phase, the application of architectural coatings, such as interior and exterior paints, sealants, etc. can generate substantial air pollutant emissions, consisting of various reactive organic gases (ROGs), which contribute to formation of ozone in the regional airshed. Other, minor sources of ROGs that would be generated during the same period include exhaust emissions from construction crew vehicular trips, occasional materials deliveries, etc. Architectural coating emissions generate the vast majority of ROGs during the building construction phase; therefore, measures to limit such emissions would be the most effective way to keep ROG levels below the daily threshold. There are three types of restrictions available: (1) limiting the amount of surface area painted/coated on a given day; (2) using low volatility paints and coatings; and (3) altering application methods, i.e. hand application vs. spray application, including airless sprayers that are very common in present day construction practices, as well as high volume, low-pressure sprayers that increase transfer efficiencies by 10 percent compared to airless sprayers.

A previous analysis conducted for the UCI Palo Verde Apartments Expansion project determined that the most effective daily reductions in ROGs can be achieved by a combination of using only low volatility paints, together with hand application (no sprayers) and limitations on the amount of surface area treated. Combining low volatility paints with either airless or high volume low pressure (HVLP) sprayers requires a decrease in the amount of surface area that can be coated, to keep emissions to an approximately 70 pounds/day limit. This will allow for up to 5 pound/day to be emitted by other common sources such as construction vehicle emissions, without exceeding the 75 pounds/day SCAQMD threshold. With implementation of the following mitigation measure, ROG emissions associated with the building construction phase would be less than significant.

Mitigation Measure #2: Minimize Architectural Coatings Emissions

Construction plans and specifications will include a requirement to define and implement a work program that would limit emissions of reactive organic gases (ROGs) during the application of architectural coatings to the extent necessary to keep total daily ROGs from all sources below 75 pounds/day, throughout that period of construction activity. The specific program may include any combination of restrictions on the types of paints and coatings, application methods and amount of surface area coated, as determined by the Contractor.

Long-Term Impacts

Less Than Significant Impact

Minor levels of direct and indirect emissions would occur over the long-term operating life of the proposed project. Mechanical heating and ventilation systems will be vented through the roof, utilizing standard ventilation controls, and will generate low levels of non-hazardous emissions. Such emissions would not violate any air quality standard or contribute to an existing or projected air quality violation. Indirect emissions would occur in the form of exhaust generated by the use of motor vehicles by students, faculty, and by generation of electricity at the on-campus energy plant. Less than significant indirect emissions would also occur with off-site generation of electrical power and natural gas in response to consumption of these energy sources within the proposed buildings. Total energy consumption-related emissions will be reduced through incorporation of a variety of energy conserving features in the project design. Performance criteria established for this project include a minimum energy efficiency target of 20% less than the minimum California Title 24 Energy Code requirements in compliance with the UC Policy on Sustainable Practices.

As shown in Table 3, long-term emissions generated by project traffic and “area sources (building energy systems and outdoor maintenance) would be well below SCAQMD significance thresholds, and thus not violate an air quality standard or contribute substantially to an existing or projected air quality violation.

Table 3: Long-Term Air Emissions (Pounds/Day)

Emissions Source	ROG	NOx	CO	PM 10	PM 2.5_x
Area Sources	0.5	0.4	1.9	0.0	0.0
Mobile Sources	3.5	4.2	41.9	7.3	1.4
<i>Totals¹</i>	<i>4.0</i>	<i>4.6</i>	<i>43.8</i>	<i>7.3</i>	<i>1.4</i>
Significance Thresholds	55	55	550	150	55
<i>Exceeds Threshold (?)</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

¹ Emissions of SOx would be <0.02 pound/day

Source: Giroux & Associates, July 2007

- 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 that exceed quantitative thresholds for ozone precursors)?*

Less Than Significant Impact. The South Coast Air Basin (SCAB) has been designated as Non-Attainment with respect to federal and state air quality standards

for carbon monoxide (CO), ozone precursors (O₃) and suspended particulate matter (PM₁₀). As noted in the preceding response to item b, with implementation of mitigation measures 1 and 2, construction phase emissions resulting from the proposed project would not exceed the applicable SCAQMD significance thresholds for either of these criteria pollutants. As shown in Table 3 in the preceding response, long-term emissions generated by project traffic and energy consumption would not exceed SCAQMD significance thresholds. These thresholds were established as a means of identifying potentially significant project level and cumulatively considerable net increases in air pollutants. This project would thus not result in a cumulatively considerable net increase in any criteria pollutant.

d) *Expose sensitive receptors to substantial pollutant concentrations?*

Short-Term (Construction) Impacts

Less Than Significant Impact. There are no “sensitive” land uses (e.g. hospitals, day care centers, elderly care facilities) in this part of the campus; thus no inhabitants of such uses would be exposed to temporary construction emissions. Students, faculty and visitors who walk by the active construction site would be exposed, for brief periods of time, to gaseous and particulate emissions during extension and installation of underground utilities, during earth-moving activities and during the various building construction phases. Exposure to passers by would be less than the level of exposure of the construction crews.

As noted in the response to item b, a number of standard fugitive dust and engine exhaust controls will be implemented to minimize grading-related impacts, and other routine measures will be implemented to minimize emissions associated with application of architectural coating. In accordance with standard campus construction practices, the construction sites will be partially screened by a five-to-six-foot high fence covered with a wind resistant fabric, that would also act as a partial barrier to fugitive dust generated on the project site. Given these considerations, passing pedestrians and bicyclists would not be exposed to substantial pollutant concentrations during the construction phases.

Long-Term (Operational) Impacts

No Impact. As discussed in the response to item b, above, this project would not generate significant long-term levels of air pollutants, and there are no nearby sensitive land uses. This project would not expose existing or future sensitive receptors to long-term air quality impacts.

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

Less Than Significant Impact. During the demolition and rough grading phases, construction machinery and vehicles would produce gaseous emissions with common gasoline or diesel fuel and exhaust odors. Other odors would be produced during the building construction phases, when a variety of chemical sealants, coatings and paints are applied. Passing pedestrians and bicyclists would be temporarily exposed to these odors, but this would not be considered a significant, adverse impact, due to the temporary nature of the experience and the rapid dissipation of the effect outside of the immediate construction zone. Operational emissions from rooftop vents would be mechanically filtered prior to release. The proposed building would not contain any food preparation, storage, consumption or disposal facilities, or other uses that may contain malodorous elements; therefore, odors associated with such facilities would not occur. This project would not create objectionable odors affecting a substantial number of people.

References

- Giroux & Associates, *Air Quality Analysis, UCI Arts Building Project*, July 2007 (see Appendix A).
- California Air Resources Board, *URBEMIS 2007*
- South Coast Air Quality Monitoring District, *2007 Air Quality Management Plan*, as approved by the SCAQMD Governing Board, June 1, 2007.
- <http://www.aqmd.gov/smog/AQSCR2005/aq05card.pdf> (viewed 6-19-07)
- <http://www.aqmd.gov/smog/AQSCR2004/aq04card.pdf> (viewed 6-19-07)
- <http://www.aqmd.gov/smog/AQSCR2003/aq03card.pdf> (viewed 6-19-07)
- <http://www.aqmd.gov/smog/AQSCR2002/aq02card.pdf> (viewed 6-19-07)
- <http://www.aqmd.gov/smog/AQSCR2001/aq01card.pdf> (viewed 6-19-07)

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 subject sites are located in the highly developed campus interior and already consist of a prefabricated classroom building, landscape planters, open lawn area, concrete walkways, and ornamental landscaping.. As a result, the project sites contain minimal habitat value and do not support sensitive wildlife or plant species. Given these urbanized conditions, the project would not result in a decrease in the diversity of species or number of plants or animals, or a reduction in the number of unique, rare, or endangered plant or animal species.

- 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 US Fish and Wildlife Service?*

No Impact. As noted in the previous response, the subject site is completely developed, with ornamental landscaping, hardscaping and building elements that have negligible habitat value. There is no riparian habitat or any other sensitive natural habitat on or adjacent to the proposed building site.

- 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 wetlands or any other form of surface water resources within or near these completely developed sites; therefore, none would be adversely affected by the proposed project.

- 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. This site is located within one of the most highly urbanized parts of the campus, where there is no water body or other wildlife habitat that could support movement of native fish or wildlife species. There are no native wildlife nursery sites in the academic core or elsewhere on campus.

e) *Conflict with any local applicable policies protecting biological resources?*

No Impact. There are no LRDP or other state or federal policies for protection of biological resources that apply to this urbanized academic core area.

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

No Impact. This highly urbanized part of the campus is not within any habitat conservation plan or any form of open space conservation plan.

References

- Planning Research Network. *Field survey of project area on June 7, 2007.*

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. The entire UCI campus was surveyed as part of the 1989 LRDP EIR to identify significant and potentially significant cultural resources in the planning area. No historic resources were found on or near the proposed project sites. There is no significant historical resource value associated with the prefabricated Arts Trailer building that will be removed, or with either of the proposed building sites. This project would thus have no effect upon a historic resource.

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

No Impact. The 1989 LRDP EIR identified twenty archaeological sites within the LRDP planning area, most of which had been discovered by previous surveys. None of these sites occur within or near the project sites. There is no evidence to suggest that project-related grading activities could have any impact on an archaeological resource; therefore, no impacts are anticipated and no mitigation measures are warranted.

- c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant With Mitigation Incorporated. The 1989 LRDP EIR identified a majority of the UCI campus, including the project limits, as part of a “high-sensitivity” area for paleontological resources. This signifies an increased likelihood of containing paleontological resources, including invertebrate and vertebrate fossils traditionally associated with Pleistocene Age marine deposits that characterize the Upper Newport Bay area. There is some possibility that fossil materials could be found in native soil materials that could be disturbed during the excavation phase. Adherence to Mitigation Measure 3, listed below, will mitigate any impacts to paleontological resources to less than significant.

Mitigation Measure #3: Monitor Grading to Protect Paleontological Resources

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. 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?*

No Impact. The 1989 LRDP EIR cultural resources survey and previous surveys did not reveal any evidence that one or more human burial sites were established within the campus planning area. Accordingly, human remains are not likely to be encountered or disturbed at the previously developed project sites during grading operations, and no impacts are anticipated. In the unlikely event that any human remains are uncovered during grading operations, the contractor would be required to notify the County Coroner, in accordance with Section 7050.5 of the California Health and Safety Code, who must then determine whether the remains are of forensic interest. If the Coroner, with the aid of a 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 investigations.

Reference

- Pereira & Associates, et al. *Long Range Development Plan, University of California, Irvine*. September 1989.
- STA Planning, Inc. *University of California, Irvine, 1989 Long Range Development Plan EIR* (State Clearinghouse No. 88052512). May 1989.

- EIP Associates. *University of California, Irvine, 1995 Long Range Development Plan Circulation and Open Space Amendment EIR* (State Clearinghouse No. 95031035). October 1995.

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?*

Less Than Significant, With Mitigation Incorporated. The State Geologist has mapped no earthquake faults on campus for the State Alquist-Priolo Earthquake Fault Zones program. Geotechnical investigations conducted by Petra Geotechnical (1991) identified a trace of a potentially active north/south trending fault, extending through the Humanities/Arts Quad near the northeastern edge of building site B. To prevent damage from a potential surface fault rupture, both buildings will be constructed at least 50 feet outside of the fault trace. Through implementation of the following mitigation measure, impacts resulting from potential surface rupture of this fault will be avoided.

Mitigation Measure #4: Ensure Buildings Lie Outside of Campus Fault Zone

Prior to completion of the grading plan, a site-specific geotechnical investigation and assessment of project design criteria relative to seismic and soils constraints shall be completed for each building site, including an investigation of whether their footprints are located a minimum of 50 feet away from the nearest fault trace.

- ii) *Strong seismic ground shaking?*

Less Than Significant Impact. There are a number of active earthquake faults in southern California that could generate various levels of seismic ground shaking on site, in the event of an earthquake. The nearest known active fault is the offshore segment of the Newport-Inglewood Fault, approximately five miles from the subject site. A maximum magnitude earthquake of 6.9 on the Richter scale is projected for this fault. Other potentially significant sources of strong seismic ground motions that could affect this site include: the San Andreas Fault (approximately 80 miles away, maximum magnitude event of 7.4 to 7.8), the Coronado Bank Fault (approximately

41 miles away, maximum magnitude event of 7.4), the San Jacinto-Anza Fault (approximately 86 miles away, 7.2 maximum magnitude event), and the Palos Verdes Fault, approximately 27 miles away, 7.1 maximum magnitude event).

Movement along these or other regional faults, as well as the on-campus fault, could generate a level of ground motions that might result in substantial damage to the proposed structure. Building occupants on the site during such an event could then be exposed to a significant risk of loss, injury, or death. As part of UCI's standard project design procedures, as further specified in Mitigation Measure #4, the pertinent Uniform Building Code (UBC) seismic safety design parameters will be identified in a project-specific geotechnical investigations report; these parameters will be addressed and incorporated into the final project design to mitigate ground shaking risks to less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. The State of California, Seismic Hazards Zones Map (2001) that covers the campus planning area indicates that the subject sites are outside of any liquefaction, landslide or other potential permanent ground displacement hazards. A preliminary geotechnical investigation conducted in 2005 at the open lawn area immediately west of Site B did not identify potentially significant liquefaction hazards. Nevertheless, in accordance with UCI's routine project design and construction practices, a geotechnical investigation will be conducted at each of the proposed building sites to determine the exact composition of the underlying soil materials and the potential for liquefaction during a seismic event. If liquefaction hazards are present, the geotechnical report will include recommendations for appropriate grading and foundation design parameters.

iv) Landslides?

No Impact. As stated in the preceding response, the subject sites are 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 either of the relatively flat building sites; therefore, this project would not be constrained by landslide hazards.

- b) *Result in substantial soil erosion or the loss of topsoil?*

No Impact. There is no native topsoil within either of the developed project sites, which are underlain by fill material. Following construction, each site would be covered by building structure, landscaping and paved ground surfaces; thus, no long-term soil erosion would result from the proposed project.

- 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 a/b. 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 limits. There are no indications of potential ground instability and no reported problems at either site involving unstable ground conditions. A November 2005 geotechnical assessment of the open lawn area between the Production Studio and the Arts Trailer site did not identify any evidence of ground instability. Any unstable materials that might be encountered during routine geotechnical investigations and the rough grading phase will be removed and replaced with properly engineered, compacted materials, in accordance with the recommendations in the geotechnical report and routine construction practices. Through this standard practice, potentially significant impacts involving unstable geologic or soil materials will be avoided.

- d) *Be located on expansive soil, as defined in Table 18-1-B of the California 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. The November 2005 geologic assessment of the nearby open lawn area noted in the previous response determined that the soils underlying that site have a low expansive quality. Based on that assessment, it is considered unlikely that soils underlying the proposed building sites consist of expansive materials. Nonetheless, in accordance with UCI's standard construction practices, the expansive characteristics of underlying soil materials will be determined by the project geologist during rough grading. If expansive soils are encountered at either site, they will be removed and the affected area will be overexcavated and replaced with suitable engineered fill materials. Adherence to this routine construction practice will avoid significant impacts involving expansive soils.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. No septic tanks or alternative soils-based wastewater disposal systems are proposed. All wastewater generated in the proposed facilities will be conveyed via local sewer lines to the existing UCI sanitary sewer system.

References

- STA Planning, Inc. *University of California, Irvine, 1989 Long Range Development Plan EIR* (State Clearinghouse No. 88052512). May 1989.
- California Department of Conservation. *Division of Mines and Geology, State of California Seismic Hazards Zone, Tustin Quadrangle Official Revised Map*, January 17, 2001.
- PETRA GEOTECHNICAL, INC. *JN 312-91, Geologic Map, Plate A*. October 1991.
- Global Geo-Engineering, Inc., *Geotechnical Investigation Report, Arts Facility Project, University of California, Irvine*. November 22, 2005.

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. “Hazardous materials” include both hazardous substances and wastes. The U.S. Environmental Protection Agency (EPA) classifies a material as hazardous if it has one or more of the following properties: ignitability, reactivity, or toxicity. Hazardous waste and substances with the above properties are found throughout the UCI campus, with the highest levels of such material found at teaching and research facilities containing laboratories and experimental facilities.

The existing Arts Trailer is considered structurally viable and will be relocated elsewhere on campus to support other needs, which would not require its dismantling

or result in the release of hazardous materials into the environment. There are no hazardous materials or wastes within the landscaped yard area of Site A. It is considered unlikely that any hazardous materials would be uncovered or released during site clearing/preparation activities at either building site.

Standard construction practices include regular monitoring of grading activities by the geotechnical engineer to look for signs of potentially hazardous materials, so that such materials can be identified accurately and immediately, and removed, if necessary. Significant impacts involving accidental release of hazardous materials during site clearing and excavation work are, therefore, considered unlikely.

A variety of solid and liquid hazardous substances would be stored, consumed and require some disposal during and following the building construction and finishing phases. Such substances would occur in the form of paints and other interior and exterior coatings, solvents, possibly fuel and lubricants for construction machinery. Implementation of routine construction site “good housekeeping” practices will ensure that potential accidental spills or other releases of hazardous substances are prevented or quickly and adequately contained. No significant impacts associated with such routine construction practices are expected.

No wet laboratories or any other kinds of research/instructional facilities are proposed that would require regular transportation, storage, use, or disposal of hazardous materials. Waste materials associated with the proposed instructional, research exhibit and support, and academic and administrative office areas would likely include art paints, printer toner cartridges, paper, glass and plastics, packaging materials, film, a variety of electronic components, food and drink. Throughout the operating life of the project, there would also be a need to dispose of outdated or non-functioning electronic equipment of various types, as well as film wastes from video editing and projection room equipment. Some of the waste materials generated in the Arts Building spaces could contain chemicals that are considered hazardous if broken or disposed of improperly. These wastes would be properly disposed of as part of the existing Environmental Health and Safety Department (EH&S) hazardous materials and waste management program. No adverse long-term impacts involving hazardous materials and wastes are expected because of the operational characteristics of this project and the campus-side waste management program already in place.

- 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 this site, except those that are part of the UCI campus educational facilities. Operation of a spray paint booth in the Stage Properties area and use of paints and related media in the Arts Studio would emit emissions of potentially hazardous materials. Any special ventilation requirements for these spaces will be determined in the final design phase, to comply with the applicable specifications of the Uniform Building Code (UBC). No unique or exceptionally volatile or dangerous types of substances would be stored or produced and ventilation systems that are already in use on campus are expected to be sufficient to prevent the release of dangerous emissions to the atmosphere, or within the buildings. Compliance with UBC ventilation standards will ensure that no impacts involving emissions of hazardous substances would occur as a result of this project.

- 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 and a ¼ -1 mile surrounding area, by Environmental Data Resources (EDR) on June 20, 2007 (see Appendix B). This search was designed to assist in satisfying the Environmental Protection Agency's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) and the American Standard of Testing Materials (ASTM) standard E-1527-05 for an environmental site assessment to evaluate environmental risk associated with a parcel of real estate. The results of this search determined that the subject site is not found on any of these lists. Furthermore, no hazardous materials incidents are under investigation at either proposed building site and none were reported here in the past.

- 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 proposed project development area is outside of the airport land use plan area. There

are no private airstrips within the vicinity of the project site. This project would not expose people or structures to air traffic hazards.

- 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 near the two building footprints. Closure of campus streets or service drives for other facilities is not anticipated during project construction. 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. If temporary encroachments into nearby pedestrian/bicycle paths are warranted during certain construction activities, they will be restricted to maintain adequate pedestrian circulation and emergency evacuations.

UCI has an Emergency Management Plan that provides guidance for the campus community's response efforts for a variety of emergencies including fires, hazardous spills, earthquakes, flooding and explosions. Neither of the proposed building sites is within any vehicle evacuation routes, and neither is identified for emergency shelter or other emergency response purposes. This project would have no effect upon or conflict with the campus Emergency Management 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?*

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

References

- UC Irvine, Office of Design & Construction Services, June 2007.
- Sasaki Associates, Inc. *UCI Final Detailed Project Program, Arts Building*, January 2007
- STA Planning, Inc. *University of California, Irvine 1989 Long Range Development Plan EIR* (State Clearinghouse No. 88052512). May 1989.

- EIP Associates. *University of California, Irvine, 1995 Long Range Development Plan Circulation and Open Space Amendment EIR* (State Clearinghouse No. 95031035). October 1995.
- Planning Research Network, *Field Survey*, June 7, 2007.
- Environmental Data Resources Inc. *EDR Radius Map Report - Mesa Road, Irvine, California, Inquiry Number 1960239.1s*. June 20, 2007.

8. HYDROLOGY AND WATER QUALITY

Would the project:

- a) *Violate any water quality standards or waste discharge requirements?*

Construction Impacts

No Impact. Short-term surface water quality impacts could potentially 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. In accordance with standard campus construction practices, the contractor will prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) that specifies best management practices (BMPs) to prevent storm water from contacting and carrying off waste materials and other pollutants in the construction zones. BMPs would include erosion and sediment controls such as silt fences and/or straw wattles or bails, “good housekeeping practices,” runoff water quality monitoring, prevention and containment of accidental fuel spills or other waste releases, inspections, etc. The SWPPP will cover the entire construction footprint including the laydown and staging areas. If the total construction and staging area is larger than one acre, the contractor will also file the SWPPP as part of a Notice of Intent with the Santa Ana Regional Water Quality Board (RWQCB). This will satisfy the University’s obligations to fulfill the conditions of the General Construction Permit developed to implement the National Pollutant Discharge Elimination System regulations set forth under Section 402 of the Clean Water Act. UCI’s Environmental Health & Safety Department will monitor construction to ensure proper adherence to the BMPs identified in the SWPPP.

The preliminary geotechnical investigations conducted during the preliminary planning of this project indicated that there is a potential to encounter groundwater

during the excavation phase. If that occurs, “de-watering” will be required to remove ground water from excavation areas and discharge it in an acceptable manner. Since groundwater might contain sediment and/or high mineral concentrations, proper discharge of the ground water will be necessary to avoid potential contamination of waters affected by that discharge, such as inflows to the local storm drain system. Water quality impacts due to de-watering will be avoided through Contractor compliance with the provisions of the RWQCB Dewatering General Permit. This would include advance notification, testing and reporting of testing and de-watering discharges.

Implementation of the SWPPP and Dewatering General Permit (if necessary) will ensure that this project does not violate any water quality standards or any waste discharge requirements during the construction phases.

Post-Construction Impacts

No Impact. Waste Discharge Requirements are issued by the Santa Ana Regional Water Quality Control Board under the provisions of Division 7, Article 4 of the California Water Code. These requirements regulate “point source” discharges of wastes to surface and ground waters, such as septic systems, sanitary landfills, dairies, etc. All wastewater produced within the proposed facilities would be discharged into the campus sewer network that serves the academic core; therefore, this project would have no point sources of wastewater discharge and thus would have no direct effect upon surface or ground waters.

Composition and quality of surface runoff from the completed project would be similar to that of developed areas in surrounding area and surface runoff at the two completed building sites would represent a minor change to existing conditions. Runoff from Building B will be primarily be diverted to the adjacent lawn area and into the existing campus drainage network, while runoff from Building A would be conveyed into the campus drainage system. Best management practices to reduce post-construction runoff impacts will also be identified in the SWPPP prepared for this project, as part of the General Construction Permit compliance process noted earlier. Runoff from the completed project would not violate any water quality standards or any 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)?*

No Impact. No groundwater extraction wells would be used or drilled to support project implementation. There are no groundwater wells within the project limits, and the project area has not been managed for the purpose of groundwater recharge. Therefore, project implementation would not deplete or interfere with groundwater supplies or recharge.

- 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 either of the proposed building sites. Existing drainage patterns in the project vicinity would not be altered by the implementation of the proposed project. All storm flows would be conveyed into the existing local campus storm drainage system in Mesa Road, through underground storm drainage facilities to be included in the proposed project. Impervious surface area would increase to a minor extent at Site A, since a building would replace a small open lawn area. Impervious surface area would be increased to a lesser extent at Site B, due to replacement of landscape planters with building structures and hardscape. Given the small scale of this project and the developed character of this part of campus, the additional runoff would not significantly alter existing conditions, and would not result in off-site erosion, siltation or flooding.

- e) *Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Less than Significant Impact. As mentioned in the preceding response, the project would result in a minor increase in runoff due to the introduction of additional impervious surfaces where some landscaping currently exists. One or more new drainage devices will be provided to convey site runoff into the main campus storm drainage network. No additional capacity in the main drainage system will be necessary.

The composition of runoff from the proposed building rooftops and ground level hardscape and landscape planter areas would be the similar to the composition of the runoff from the neighboring portions of the developed Arts Village complex and other developed sites within the academic core. This project would not produce substantial additional sources of polluted runoff.

f) *Otherwise substantially degrade water quality?*

No Impact. This project would not involve any additional water quality impacts beyond those discussed in the preceding responses.

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. No portion of the project limits lie within a 100-year flood hazard area, and the project does not propose any housing.

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

No Impact. No portion of the project limits lie within a 100-year flood hazard area.

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. There are no levees or dams within the vicinity of any portion of the project limits, and this site does not lie within any potential dam or levee inundation areas.

j) *Inundation by seiche, tsunami, or mudflow?*

No Impact. There are no bodies of water or large water reservoirs near the project limits; therefore, there is no potential for inundation by seiche. The UCI campus is located several miles inland from the Pacific Ocean and could not, therefore, be impacted by tsunami conditions along the coastline. There are no canyons, slopes, drainage courses or other natural features on or near the project site that that could generate mudflows during heavy rainstorms.

References

- STA Planning, Inc. *University of California, Irvine 1989 Long Range Development Plan EIR* (State Clearinghouse No. 88052512). May 1989.
- Planning Research Network, *Field Survey*, June 7, 2007

9. LAND USE AND PLANNING

Would the project:

- a) *Physically divide an established community?*

No Impact. This project occurs within a heavily urbanized part of the campus, with all infrastructure systems and vehicular access in place. The proposed building site is within the central part of the existing Arts Village, which has been developed for many years. This project would not physically affect the configuration of any surrounding sites or have any effect upon the physical structure of the campus, beyond the proposed building footprint.

- 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. As discussed in the response in Section II, item 5, this project is consistent with the 1989 LRDP, with respect to location and intensity and type of land use, and is not expected to conflict with the Draft 2007 LRDP Update that is under development. The University of California has sole jurisdiction over the project approval; therefore, project implementation would not conflict with any applicable land use plans administered by any other agencies.

- c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

No Impact. The proposed project site is located near the academic core, in a highly developed area of the campus, and as such is not in or adjacent to any habitat conservation or natural community conservation areas.

Reference

- University of California, Irvine. Land Use Plan, in the *Long Range Development Plan*.

- Planning Research Network, *Field Survey*, June 7, 2007.

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. No significant mineral resources were identified within the UCI campus-planning area during the research conducted for the 1989 EIR, as amended, and none identified since. Therefore, the proposed project would not affect mineral resources.

References

- STA Planning, Inc. *University of California, Irvine 1989 Long Range Development Plan EIR* (State Clearinghouse No. 88052512). May 1989.
- EIP Associates. *University of California, Irvine, 1995 Long Range Development Plan Circulation and Open Space Amendment EIR* (State Clearinghouse No. 95031035). October 1995.

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?*

Less Than Significant Impact. Construction restrictions will be imposed to avoid temporary but potentially significant construction noise impacts--please refer to the response to item d., below. None of the research, instructional, exhibit or academic and administrative office activities to be conducted entirely inside the proposed facilities would expose people to excessive interior or exterior noise during the long-term operational phase of the project. Traffic noise increases would be negligible, since the proposed project would generate a relatively small increase in total daily trips to and from the campus and would not affect any trip distribution patterns.

- b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact. Removal of concrete walkways may involve the use of jackhammers, which would generate intermittent ground borne vibration and noise, during the weekday construction work hours. During the rough grading phase, hard rock materials may need to be broken up with high impact machinery that could generate some localized ground vibration and possibly some groundborne noise that would be audible beyond the construction zone. Blasting is prohibited on campus. Based on the anticipated relatively shallow excavation requirements and the results of geotechnical investigations conducted in the lawn area east of the Production Studio, pile drilling or driving is not expected to be necessary for foundation support. No groundborne vibration impacts are expected beyond the construction limits. Given the temporary and intermittent nature of these construction activities, the impact would be less than significant.

The long-term operational characteristics of this project would not include any activities that could create groundborne noise or vibration.

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

Less Than Significant Impact. Existing ambient noise sources in the immediate vicinity of the project site include: vehicular traffic along W. Peltason Drive and Mesa Road, pedestrian conversation, mechanical equipment operation such as lawn mowers and air conditioners, occasional truck deliveries and trash pick-up truck movements, and over flights by aircraft traveling to/from John Wayne Airport. There are no “sensitive” receptors near the project site, which is surrounded by a variety of research, instructional, performance arts and indoor athletic facilities, pedestrian and bicycle pathways, and a vehicle parking structure. The present noise environment in the project vicinity is typical of conditions throughout the academic core.

Operation of the mechanical heating and ventilation systems may result in occasional, minor noise detectable to people walking, biking or standing near the building. Research, office and instructional activities conducted within the building interior would generate relatively low noise levels that would not be audible outside of the fully enclosed buildings. Sounds of people engaged in outdoor conversation would increase, as more students and faculty frequent the completed facilities; this would be a less than significant impact. Occasional truck deliveries to the loading docks on either side of the Mesa Road building site would generate a momentary

increase in local noise levels; this noise would have a minimal effect on daily ambient noise levels and the impact would be less than significant.

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

Less Than Significant With Mitigation Incorporated. Periodic and temporary noise impacts would occur during the approximately two-year construction period, and over the long-term operating life of the project, as discussed below.

Construction Phases

Construction activities would include the following main phases/durations:

Mobilization and Site Grubbing:	one month
Rough Site Grading/Soil Export:	one month
Foundation Forming and Placement:	two months
Structural Frame:	eight months
Exterior Skin:	three months
Interior Build-Out:	six months
Site Improvements/Landscaping:	two months

These activities would require the use of a variety of heavy equipment and machinery, along with small, medium and large trucks to transport heavy equipment and building materials, and to dispose of construction related wastes. Noise levels during construction would vary with the type of equipment and machinery in use. Construction related noise sources/levels would be: 1) jack hammers at a range of 80 to 100 dB, 2) backhoes at a range of 75 dB to 95 dB, 3) tractors at a range 5 dB higher than backhoes, 4) dump trucks and other heavy trucks at a range of 80 to 95 dB, all at a distance of 50 feet from the noise source. Use of piles to support foundations is not anticipated; therefore, no noise from pile drilling or driving would occur.

Removal of the existing Arts Trailer would result in a temporary noise impact for a period not expected to exceed two days. If this occurs during scheduled class periods, there could be some nuisance-level impact at nearby academic facilities. Construction-generated noise levels noted above would be higher than the existing ambient noise environment, and would occur mainly during weekdays, in daylight hours. It may be necessary to work on one or more weekends, however, to maintain the scheduling objectives. If that occurs, noise impacts would be less than significant, since there are no sensitive receptors such as housing units in the vicinity and there would typically be less people present than on weekdays. Construction noise increase would be most audible to people outdoors in the immediate vicinity, including construction crews, pedestrians and bicyclists. Construction crew members 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. The level of impact inside surrounding academic and performance facilities would be lower than the level outside of those facilities, and would be insignificant. Given the density of this developed area and proximity to several surrounding academic facilities, construction noise could be intrusive to nearby indoor and outdoor spaces, e.g., during those periods when tests are administered, during rehearsals, etc. Implementation of the construction control measures listed below will reduce potential impacts to less than significant.

Mitigation Measure # 5 - Construction Noise Controls

Measures to reduce construction/demolition noise to the maximum extent feasible shall be included in contractor specifications for the project and include:

- a. Noise generating construction activities occurring Monday through Friday shall be limited to the hours of 7:00 am to 7:00 pm, except during summer, winter, or spring break as approved by UCI Campus and Environmental Planning.
- b. Noise generating construction activities on Saturdays shall be limited to the hours of 9:00 am to 6:00 pm with no construction on Sundays or holidays if the construction activities are proximate to (can be heard from) on-campus residential housing; however, if on-campus land uses are unoccupied or would otherwise be unaffected by construction noise, construction may occur at any time, as determined by Campus and Environmental Planning.
- c. Construction activity noise levels shall be measured at adjacent noise-sensitive land uses at the initiation of construction and noise barriers or other means of reducing noise levels shall be implemented if the measured noise levels exceed a 12-hour average sound level of 75 dBA between 7:00 am and 7:00 pm.
- d. Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise.

- e. As feasible, stationary construction noise sources such as generators, pumps or compressors shall be located 100 feet from noise-sensitive land uses.
- f. All neighboring land uses that would be subject to construction noise shall be informed at least two weeks prior to the start of each construction project, except in an emergency situation.
- g. Loud construction activity such as jackhammering, concrete sawing, asphalt removal, pile driving, and large-scale grading operations shall not be scheduled during any finals week of classes (a finals schedule shall be provided to the contractor)
- h. Removal/relocation of the Arts Trailer shall be coordinated with the academic schedule to avoid conflicts with noise-sensitive activity periods, such as finals week.

Operational Phase

Periodic, temporary noise associated with truck deliveries would be limited to weekday hours and would not, therefore, significantly affect ambient noise levels. Periodic noise generated by rooftop mechanical equipment would not be audible beyond the project site, with typical sound attenuation features to be included in the project design.

- 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 approximately three miles from John Wayne Airport, which is the only public airport in the project vicinity, and the project site is not within a departure or approach airport pattern. Therefore, project implementation would not expose future faculty, staff or students to excessive noise involving air traffic or activities within an airport.

- 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. There are no private airstrips on or near the UCI campus.

References

- Planning Research Network. *Field Survey*. June 7, 2007.

- Global Geo-Engineering, Inc., *Geotechnical Investigation Report, Arts Facility Project, University of California, Irvine*. November 22, 2005.
- *Noise From Construction Equipment & Operations, (EPA PB 206717) December 1971*. Prepared by the U.S. Environmental Protection Agency.
- UC Irvine, Office of Design and Construction Services, June 2007

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. This project is intended to accommodate additional undergraduate and graduate students projected to enroll in the School of Arts and to respond to an existing need for increased research, instructional, exhibit and office space within this program. The additional students, faculty and staff to be accommodated in the proposed building would be within the totals foreseen by the 1989 LRDP. This project would not produce new homes or businesses, and would not extend or increase the capacity of the campus backbone infrastructure. It would not, therefore, have direct growth inducing effects.

The approximately 59 new faculty and staff and the approximately 360 new undergraduate and graduate students that would occupy this building 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. This project would not, therefore, result in significant indirect growth inducing effects.

- 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. There are no housing units on the subject site; therefore, no existing housing units or households would be impacted.

References

- University of California, Irvine, *Project Planning Guide-Arts Building, Project No. 991072*. June 2006

13. **PUBLIC SERVICES**

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

Fire protection?

Less Than Significant Impact. The project site is located in a highly developed part of the campus with adjacent vehicular access and a fully pressurized water system in place. It would consist of the same types of building structures and interior spaces found in nearby existing buildings. Design criteria developed for the proposed main buildings specify a Class 1 Ordinary fire detection and suppression fire suppression system, with hydraulically calculated automatic wet sprinklers, in accordance with National Fire Protection Association, California Code and State Fire Marshall requirements. The fire protection system will be connected to the campus main water system; pressure tests will be performed during the design phase to determine the need for booster pumps. Neither building would be a high rise structure and would thus not require additional fire prevention/suppression features for such structures. Given these conditions, the proposed project would not impede the ability of the Orange County Fire Authority (OCFA) to maintain its current level of service to the University, and would not require any new or physically altered fire protection facilities.

Police protection?

Less Than Significant Impact. UCI campus police provide primary police protection on the UCI campus. This project would not represent a unique land use within the 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.

Schools?

Less Than Significant Impact. The proposed project would support undergraduate student instruction, as well as some research activities by faculty and graduate students. The new undergraduate students accommodated by this project would typically not include heads of households with children, and would thus not directly increase enrollments at any of the K-12 public schools serving the residents at the UCI campus or surrounding areas within the Irvine Unified School District (IUSD). The new faculty members and support staff, and some of the graduate students, may include heads of households with children that do not currently reside within the IUSD service area. To the extent that these new faculty and staff positions do attract such new households to this area, there could be increased enrollment within IUSD elementary, middle and high schools, indirectly attributed to the proposed project.

In November 2006, there were 563 school age children living on the UCI campus in faculty/staff or graduate and family student housing. The proposed project could potentially generate a small fraction of that total. Children living on campus primarily attend schools near UCI, including Turtle Rock Elementary School (K-6), Vista Verde (K-8), Rancho San Joaquin Middle School (7-8) and University High School (9-12). The average size of these schools are as follows: elementary - 700 students, middle - 900 students, and high - 2,200 students. The maximum enrollments are 1,000 pupils at an elementary, 1,200 at a middle, and 2,400 at a high school. Therefore, attendance at these schools is below capacity and students who live within the IUSD may attend any school within the district on a space available basis. Tustin Unified School District (TUSD) serves children who reside in the western and northern parts of Irvine.

UCI shares residential planning and construction information with IUSD staff to coordinate on-campus residential development with IUSD school facilities planning. School impact fees are paid to IUSD for every faculty/staff home built on campus, at the same level as other residential development in Irvine. When compared to the 24,000 plus students already attending schools in the IUSD, any new students generated by the project, and distributed throughout the district through open enrollment, is a less than significant number that may not even be perceivable within the yearly fluctuations of student enrollment. In addition, IUSD is planning to construct two new elementary schools and two new middle schools over the next several years. Consideration of environmental effects associated with new schools construction is part of the routine schools facilities planning process, and the school districts are responsible for CEQA compliance in that regard. Given all these considerations, the proposed project would have a minor effect on enrollment levels

in the IUSD and TUSD and would not require construction of any new schools or alteration of any existing school facilities. This project would thus have a less than significant impact with respect to school facilities.

Parks?

No Impact. Neither of the proposed building sites are within any parks or recreation areas and neither site is planned for such uses in the LRDP. Project construction activities would not interfere with any park usage on or off campus. The completed project would provide additional space for student academic needs and would not affect the level of usage of any on or off campus parks. No park facilities would be impacted either during construction or after project completion. Project implementation would result in no impacts to park facilities.

Other public facilities?

No Impact. This project would not require physical alterations to any public services facilities located on or off campus.

References

- Sasaki Associates. *University of California, Irvine, Detailed Project Program, Arts Building*. January 2007.
- University of California, Irvine. *Final Initial Study/Mitigated Negative Declaration, Humanities Building Project (State Clearinghouse No. 2007011035)*. March 2007.

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 address the academic space needs of an ever-increasing student enrollment within the School of Arts programs and would bring greater numbers of students, faculty and support staff to this developed part of the academic core. Open lawn area within each proposed building site is passive open space that is not planned or used as park land. No parks or recreational facilities occur within or adjacent to the project site; therefore, no

adverse impacts to parks or other recreation facilities would result from the proposed project.

- b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

No Impact. No outdoor or indoor parks or recreational facilities are included as part of the project. UCI provides recreational areas and facilities in various parts of the campus based on the campus-wide needs and LRDP policies. There is no LRDP requirement to construct new parks or recreational facilities as part of the proposed project. Therefore, no physical impacts on the environment would result from construction of such facilities.

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)?*

Traffic impacts generated by the proposed project would include short-term impacts during the construction phases, and ongoing, long-term impacts associated with project-generated traffic. Both short-term and long-term impacts are discussed below.

Short-Term (Construction Period) Impacts

Less Than Significant Impact. Small, medium and large trucks, as well as passenger size vehicles would travel to and from the project site during demolition/site clearing, excavation, building site preparation, building construction and interior equipping/finishing phases of the project. The volume of such traffic would vary with the nature of the work underway, the size of the active work area and the size of the work crew involved. The size of the work crews would range from a minimum of 7-10 people during the site clearing/grading phase to a maximum of about 140 people during the most intensive period of building construction activities, when a variety of trades would be on site at the same time. If none of the workers share rides to the job site, crew traffic would generate approximately 20 trips/day during the initial stages and up to 280 trips/day during the peak building

construction phases. Other busy periods would occur when the cast-in-place concrete walls of the main building are being erected, with numerous trucks delivering concrete each day, and when steel materials are being delivered for erection of the building framework. Approximately 10-15 dump truck loads per workday would be required to transport unsuitable and excavated soil materials from the project site, during the 30-day excavation phase. If the building framework were of concrete construction, concrete pouring activities would generate approximately 20 cement truck trips per day, with 30 pour days required over this 8-month phase. If the framework were of steel, delivery of structural framing materials would generate approximately four heavy truckloads per day, approximately twice a week. Waste associated with construction activities would be removed from the site each day and transported to an off-campus disposal facility.

Construction truck traffic would likely travel to/from the proposed building site from W. Peltason Drive and/or Mesa Road, each of which connects directly to the outlying arterial system, at Campus Drive and University Drive, respectively. Construction crews will be required to park at a dedicated parking lot near the intersection of Bison Avenue/California Avenue, behind the Biomedical Research Center. That crew traffic would likely, therefore, arrive/depart from Bison Avenue. Since the construction program would extend continuously for nearly two years, construction traffic would occur during the busy academic quarters, during seasonal academic holidays and during the lighter summer months.

The short-term traffic impacts associated with this project's construction phases would be similar to and no worse than many other UCI projects, and are considered less than significant.

Long-Term (Operational) Impacts

Less Than Significant Impact. By providing additional research, lecture, exhibit, office, and administrative space to accommodate projected growth in student enrollment in the School of the Arts, this project would attract increased daily vehicle trips to the campus. This project would provide space to support approximately 360 students and 59 faculty, administrative and administrative staff positions. Many of the undergraduate and graduate students would be attending UCI, with or without this project; however, for the purpose of this analysis, it is assumed that all of the students, faculty and staff housed in this building would represent new commuters to the campus. Proposed exhibition space would also generate occasional trips by limited groups of people to view the art works on display in this small gallery. Trips originating off-campus would likely occur after the campus peak traffic periods and

would represent an infrequent and minor impact that would not significantly affect the levels of service on the campus or arterial road networks.

A Year 2010 traffic impact analysis (TIA) was prepared to assess the project's impact on the nearby elements of the campus roadway network and the outlying off-campus arterial network, corresponding to the schedule to complete this project (see Appendix C). According to the TIA, the eight intersections most affected by this project's traffic currently operate at acceptable levels of service, i.e. LOS A-to-LOS C. Given the trip generation factors developed for the UCI Main Campus Traffic Model, this project would generate approximately 371 net new average daily trips, with approximately 26 net new trips during the morning peak period and approximately 34 net new trips during the peak later afternoon period. The projected year 2010 volumes account for existing volumes, plus a 3% annual growth factor, and include trips that would be generated by the recently approved Humanities Building project, also located in the Humanities/Arts Quad. Project-related traffic impacts are considered significant if they would worsen the conditions at an affected intersection to a level of service (LOS) of E or worse, or contribute more than two percent to an intersection already operating at LOS E or worse. As shown in Table 4, all intersections are projected to operate at an acceptable level of service, and this project's volume of traffic would not result in a significant congestion impact.

Table 4: 2010 Traffic Impact Analysis

Intersections	No-Project AM Peak Hour		No-Project PM Peak Hour		With-Project AM Peak Hour		With-Project PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
California/University	.83	D	.84	D	.83	D	.84	D
Mesa/University	.66	B	.90	D	.66	B	.90	D
Bridge/Campus	.61	B	.56	A	.62	B	.56	A
Academy/W. Peltason	.46	A	.67	B	.46	A	.68	B
Mesa/W. Peltason	.41	A	.61	B	.41	A	.61	B
Pereira/W. Peltason	.36	A	.62	B	.36	A	.62	B
California/Academy	.58	A	.51	A	.58	A	.51	A
University/Campus	.88	D	.86	D	.88	D	.86	D
¹ Includes 3% annual growth in traffic volumes, plus project traffic								
Level of Service Ranges (full definitions are provided in Table 3, in the traffic study, Appendix C herein)								
.00-.60 A								
.61-.70 B								
.71-.80 C								
.81-.90 D								
.91-1.00 E								
Above 1.00 F								
Abbreviations								
ICU: intersection capacity utilization								
LOS: level of service								

Source: AUSTIN-FOUST Associates, Inc. July 2007 (see Appendix C)

- 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. There are no Orange County Congestion Management Plan (CMP) roadways or intersections within the traffic impact study area. Furthermore, the approximately 371 total average daily traffic generated by the project falls well below the 2,400 average daily trips (ADT) threshold for a CMP analysis, as set forth in the CMP Guidelines.

- 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?*

No Impact. Development of the approximately two-story Building A and the four- and five-story Building B would not encroach into air space currently used for air transportation. Activities to be conducted within this facility do not depend upon and would not change the demand for air transportation services.

- 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. Vehicular access for deliveries to the proposed buildings will be from an existing service drive that connects to Mesa Road, at the south edge of the proposed building site adjacent to the Production Studio. The project does not require any alterations to existing streets or highways and the proposed building sites would not interfere with sight distance at any intersections or have any other effect on driver visibility corridors or any traffic controls. This project would not result in any hazardous traffic conditions due to design features. Since the project is an expansion of research and instructional facilities within the campus Academic Core, it would not result in incompatible modes of transportation, or any other features that could increase traffic hazards.

e) *Result in inadequate emergency access?*

No Impact. Project construction would not require closure of any adjacent streets or any service drive that provide access to other land uses. Emergency access by fire protection crews, ambulances, police cars, or other emergency vehicles will be maintained to the active construction zones and surrounding land uses. As previously noted, this project does not include any new or alterations to existing vehicular access or drive approaches and would not remove any existing routes of vehicular access. The completed project would have no effect on emergency access.

f) *Result in inadequate parking capacity?*

Short-Term (Construction) Impacts.

Less Than Significant Impact. Construction crew members will be required to park in a rough graded surface parking area in the Health Sciences Complex, near the intersection of California and Bison Avenues. A shuttle service is in operation to transport workers to/from the construction sites each day. This parking area has been designated to handle construction crew parking requirements for all campus construction projects, and the parking demand associated with this project's construction phases is not expected to affect other campus parking lots.

At this time, it appears that all construction-related staging/storage can be accommodated within the project sites and the lawn area immediately east of the Production Studio. Use of surface parking lot spaces for construction-related activities should not be required.

Long-Term (Operational) Impact

Less Than Significant Impact. There are no automobile parking spaces within the proposed building footprints; therefore, the proposed buildings would have no direct impact on parking resources.

Parking demand studies conducted by UCI's Parking and Transportation Services Department have determined that approximately 65 percent of faculty and staff purchase parking permits and the actual demand for parking is about 77 percent of that total on any given day. For commuting students, these studies have determined that there is an actual need for parking spaces for about 35 percent of the total number of such students. Given these factors, this project would generate a parking demand of approximately 156 spaces/day. This additional demand will likely exceed the capacity of the nearest parking facilities, the Mesa and Student Center parking structures, and surface lots 6A and 7. Surface Lot 7 is presently in use as a construction lay-down area for work at the Central Plant, but will be available again for vehicle parking by the time this project is underway. No new parking structures or lots are planned in or near the Humanities/Fine Arts Quad; therefore, other surface lots and parking structures would have to absorb the increased demand generated by this project.

UCI's Parking and Transportation Services Department administers an ongoing, "revolving" five-year parking program, where annual estimates of parking demand, parking losses and parking gains are prepared so that parking supplies can be expanded effectively and more efficient use of existing resources can be accomplished. This program will continue to provide sufficient parking opportunities throughout the campus, with free weekday shuttle service providing access to all parts of campus throughout the day and early evening. With this program, no significant long-term parking impacts would result from this project.

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

No Impact. The proposed project design would not require temporary or permanent removal, installation or relocation of any existing or planned bus stops. Existing bicycle racks located in front of the Arts Studio are outside of the proposed construction footprint and would not be affected by this project. A segment of an existing concrete walkway transecting the lawn area between the Arts Trailer and Studio Four would be eliminated by the larger of the two proposed buildings. This would have a negligible effect on pedestrian circulation, since it is a secondary

walkway and this project would not affect pedestrian circulation on the main north/south and east/west walkways in the Arts Village. Construction of the smaller building may occasionally require temporary disruption of pedestrian circulation along the sidewalk abutting the Mesa Road frontage. This would be a minor, less than significant impact because pedestrians could walk around this construction zone on the east side of the Production Studio or use the sidewalk on the opposite side of Mesa Road. Although construction of the project will require the alteration of some of the routes, as described, safe pedestrian access within the Arts Village and connections to the remainder of the campus will be maintained. This project would not conflict with any plans, policies or programs supporting alternative transportation.

References

- AUSTIN-FOUST Associates, Inc., *University of California, Irvine, Arts Building Traffic Study*. July 2007.

16. UTILITIES AND SERVICE SYSTEMS

Would the project:

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

No Impact. Wastewater generated within the proposed facility would be of similar composition and quality as wastewater generated by other research/instructional/academic support facilities in the Arts Village and elsewhere in the academic core. Wastewater discharges from this project would flow into the main campus sewer system and would ultimately be treated at the Irvine Ranch Water District (IRWD) or Orange County Sanitation Districts' wastewater treatment facilities. No modifications to existing wastewater treatment processes would be required to handle the flows generated by this project. Therefore, implementation of this project would not exceed applicable RWQCB requirements.

- 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?*

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 wastewater generation would be within existing planning projections for both water and wastewater treatment. New connections to the campus sewer main beneath Mesa

Road and/or W. Peltason Drive would be required. Potable and fire suppression water supply will be connected to the main water line in Mesa Road. New connections to the campus utility tunnel for chilled water and electricity would be required at the current Arts Village spur located south of the Drama Building. Connections to the existing water and sewer systems would result in minor, short-term impacts that would occur in conjunction with the construction impacts of the overall project.

- 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. This project would increase the amount of local impervious surface area that would result in a minor increase in runoff, compared to existing conditions at the subject sites. The existing campus backbone storm drainage facilities are adequate to handle the increased runoff that would result from project implementation. New underground connections to the main drainage network might be required for this project; however, these connections would not permanently disrupt surface features and would not result in significant environmental impacts.

- 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. UCI provides information to the IRWD concerning the campus development program regularly, so that it may allocate sufficient water supply and distribution resources to meet the campus-wide needs. IRWD also provides water supply services to a much larger area, encompassing the Irvine Ranch and portions of surrounding areas, and it manages and supplements its water supply sources and entitlements as needed, to meet the needs of its entire service area. As noted previously, this project is consistent with the LRDP and would not exceed the development intensity levels established for the Humanities/ Arts Quad. Development of this project and the water demand associated with the completed facilities would be consistent with projected demands based on LRDP buildout. This project would, therefore, have a minimal effect on IRWD water supply resources, and would not require any new or expanded water supply entitlements.

- e) *Result in a determination by the wastewater treatment provider that 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. IRWD also provides wastewater treatment services for the UCI campus, at its Michelson Water Reclamation Plant (MWRP) located just west of the campus, along University Avenue. As noted in the preceding response, UCI provides regular information to IRWD concerning the campus development program; this allows IRWD to plan for and allocate sufficient wastewater treatment capacity to accommodate the increasing levels of wastewater collected from the campus. Similar to its water supply planning program, IRWD plans for wastewater capacity on the basis of demand from throughout its entire service area. Since the proposed land uses and intensities are consistent with the LRDP Land Use Element, the increased wastewater generation resulting from this project would be consistent with projected demands based on LRDP buildout.

IRWD is planning to expand the capacity of the MWRP from 18 million gallons per day (mgd) to 33 mgd by the Year 2025. This project's increased wastewater generation would be consistent with previous forecasts for this part of the campus, based on the LRDP. Development of this project and its associated increase in wastewater generation would have a minimal impact on the capacity of IRWD's wastewater treatment facilities and would not result in the need for any new or expanded facilities.

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

Short-Term (Construction Impacts)

Less Than Significant Impact. Construction activity would produce waste that does not presently occur on site. This waste generation/disposal would be a one-time event and would cease upon completion of the construction process. Construction wastes generated during the site clearing and excavation phase would include: broken concrete from the walkway removed within the larger building footprint, and trees, grass and other vegetation wastes from the landscaped areas, and possibly soils, rocks and other debris that are excavated but unsuitable for use within the building sites. Throughout the construction phases, a variety of solid and liquid wastes would be generated, such as paper, metal, plastic and cardboard containers, excess non-usable building materials, and possibly miscellaneous paints, solvents, cleaning agents, fuels and lubricants, etc.

University policy requires the implementation of a comprehensive program of solid waste reduction and diversion measures including adherence to US Green Building Council LEED "Certified" or equivalent level of Green Building Certification for all

new building construction. UCI Design standards require compliance with USGBC LEED-equivalent requirements that 50% of all construction waste be diverted from landfill disposal.

Construction wastes would be collected and stored on site, for pick-up by a commercial trash hauler who would transport the materials to a licensed disposal site. Disposal sites are likely to be the existing landfills within Orange County, the nearest of which is the Frank R. Bowerman Landfill, located about 10 miles northeast of the UCI campus. Construction-generated wastes are anticipated in the Orange County Integrated Waste Management Department's (OCIWMD) planning program. This project's construction wastes would not exceed the existing capacity at any of the County's landfill sites, and no significant solid waste impacts involving construction would occur. Long-Term (Operational) Impacts

Less Than Significant Impact. Operation of the proposed project would generate solid waste on a daily basis. A variety of non-hazardous, municipal wastes would be generated, typical of wastes generated within existing Schools of Humanities and Fine Arts facilities. Such wastes would include paper, electronic storage media, ink cartridges, glass, plastic, metal and cardboard containers, food scraps and common household hazardous wastes such as cleaning agents. A portion of accumulated non-hazardous solid waste would be diverted from landfill disposal as part of UCI's existing recycling program. The remainder of the solid waste would be transported to a landfill site. The volume of solid wastes that would be generated after this project is completed and fully occupied would add a less than significant increment to the total municipal solid waste stream generated at the UCI campus that requires disposal at a landfill.

UCI requires campus buildings to achieve recycling and waste management goals set forth in its Policy on Sustainable Practices, which supports minimizing the amount of University-generated waste sent to landfills. UC systemwide policy requires that campuses achieve a waste diversion of 50% by June 30, 2008 and 75% by June 30, 2012, with a goal of zero waste by 2020. All UC Campuses area required to develop an Integrated Waste Management Plan (IWMP) with a funding mechanism for implementation by June 30, 2007 that includes waste reduction and recycling integrated with green building design, and to seek funding for waste reduction projects. Through its IWMP, UCI has programs in place for recycling beverage containers, building materials, cardboard, green waste and grass, mixed metals, and mixed office paper.

Affected landfills are most likely to be the existing landfills within Orange County, including the Frank R. Bowerman Landfill, which is located about 10 miles northeast of the UCI campus. This facility spans 725 acres, with 341 acres permitted for refuse disposal, and a maximum of no more than 8,500 tons per day. The OCIWMD is conducting a study regarding expanding the disposal capacity of the landfill and extending its operating life beyond the currently projected Year 2022 closure. If this landfill does not accept waste from a particular commercial trash hauler, the waste may be diverted to Prima Deshecha Landfill in San Juan Capistrano, the Olinda Alpha Landfill near Brea, or any of several waste transfer stations located throughout the county. This project's solid waste stream would consume a less than significant amount of the capacity of the Frank R. Bowerman Landfill, or any other landfills that receive wastes from the UCI campus.

- g) *Comply with applicable federal, state and local statutes 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. As noted in the preceding response, the completed project would generate the same types of solid wastes as those generated by the other campus academic research/instructional/administrative support facilities. This 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.

References

- STA Planning, Inc. *University of California, Irvine, 1989 Long Range Development Plan EIR* (State Clearinghouse No. 88052512). May 1989.
- http://www.oilandfills.com/landfill_bowerman.asp (viewed June 21, 2007)

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. Based on the preceding responses and incorporated mitigation measures, the project does not have the potential to degrade the quality of the environment. As discussed in the responses to Checklist item 4 - Biological Resources, the project site contains no habitat for any federal, state, or local listed plants or wildlife species. This Initial Study has found that the project site supports minimal decorative landscaping and is located within a fully developed area. As a result, the project site supports habitat that is of extremely low value for wildlife. The project site is not part of any wildlife movement corridor. The project would have no effect upon any aquatic resources or fish species, no effect on the populations of any fish or wildlife species and would not restrict the number or range of any rare or endangered plants or animals.

As discussed in the responses to 5 - Cultural Resources, no significant historic or prehistoric resources exist on the proposed project site. Compliance with Mitigation Measure 3 involving grading monitoring by a qualified paleontologist will ensure that significant impacts to paleontological resources are 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 listed in Table 5, below, there are currently five construction projects underway across the UCI campus and four projects that have been approved and are planned for development in the near future. 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. Furthermore, as discussed in Section 2, the 2007 LRDP update is currently underway to address campus development needs through 2025-26. A 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 5: UCI Projects Under Construction or Planned for Near Future

Projects Currently Under Construction		
Project Name	Gross Sq. Ft.	Estimated Completion Date
Rowland Hall Seismic Improvements	60,000(a)	December 2007
Biological Sciences Unit 3	147,000	February 2008
ICHA Faculty Housing Area 9	90 units	July 2008
Anteater Recreation Center Expansion, Step 3	26,650	September 2008
Engineering Unit 3	122,500	July 2009
Projects Approved and Planned for Development		
Project Name	Gross Sq. Ft.	Estimated Completion Date
Humanities Building	83,883	June 2009
Telemedicine	65,000	Summer 2009
Social & Behavioral Sciences Building	130,000	August 2009
Irvine Biomedical Research Facility 4	81,600	No schedule available

(a) New space resulting from seismic retrofit project

Source: UCI, Design & Construction Services, July 2007

Construction

To mitigate short-term construction-related impacts to air quality all campus construction projects, including the proposed project, must implement and monitor fugitive dust control measures required under SCAQMD Rules 402 and 403 (see Mitigation Measure 1). The proposed project will also be required to implement and monitor project-specific controls (see Mitigation Measure 2) to ensure that emissions of reactive organic compounds during the application of architectural coatings and other building sealants do not exceed SCAQMD daily thresholds.

Because the South Coast Air Quality Management Basin is considered a non-attainment area for criteria air pollutants any contribution to these non-attainment pollutants by individual construction projects could be considered significant and cumulatively considerable. Implementation of project mitigation measures 1 and 2 would reduce these impacts to a less than significant level as these mitigation measures are consistent with the 2007 SCAQMD Air Quality Management Plan strategies designed to alleviate basin-wide air quality impacts. In addition the project

is considered consistent with the AQMP from a land use standpoint as the land use projections for the UCI LRDP, including this project, are included in the AQMP.

No other construction projects are currently scheduled in the Arts Village concurrent with the Arts Building. The nearest concurrent construction project would be the approved Humanities Building (located approximately 700 feet east of the Arts Building and physically separated by existing buildings, roadways, and topography) which would overlap with this project's construction for a period of approximately four months, but would be in a different phase of construction. Based on the spatial separation of the Arts Building from other concurrent construction projects, noise, dust, traffic and other construction impacts would not combine in a significant way, and this project would not result in a cumulatively considerable impact involving other construction activities.

As discussed in the response to item 15f, a portion of the parking area in the Biomedical Research Center, near Bison Avenue and East Peltason Drive, has been dedicated for construction crew parking and storage for projects occurring throughout the campus. This reduces cumulative parking and traffic impacts associated with campus-wide construction projects to less than significant, by consolidating trips and vehicles into this one area, with a shuttle system to transport workers to and from job sites. Given the broad distribution of other ongoing and planned projects and the continued implementation of routine construction controls to minimize the air quality, noise and parking impacts, no significant cumulative construction impacts would occur as a result of this project.

Operation

The proposed project is consistent with the building space forecasts in the adopted LRDP and no significant environmental impacts have been identified in this Initial Study. Primary long-term effects resulting from the additional building intensity and increased capacity to accommodate students, faculty and support staff would include: more building mass within the Arts Village, consistent in scale and style with other buildings in this area, and increased demand on the campus utility systems without a need to expand the mainline infrastructure facilities. This project would not result in cumulatively considerable aesthetic impacts and would not contribute to significant cumulative impacts involving expansions to utility facilities.

As discussed in the traffic study prepared for this project (Appendix C), this project's impact was evaluated in the context of cumulative growth in volumes through the year 2010. The analysis determined that this project's traffic impacts would be less

than cumulatively considerable and would not require any mitigation measures to achieve level of service performance standards on the affected elements of the roadway network. As noted in the response to item 3b, the project's long term air emissions would be well below the SCAQMD thresholds, which were established to assess the significance of both project level and cumulative impacts.

With implementation of the mitigation measures identified in this Initial Study, the proposed project would not result in any significant short-term or long-term impacts or result in any impacts that are cumulatively considerable

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

Less Than Significant with Mitigation Incorporated. As discussed in the preceding responses to the entire list of impact questions, this project would not result in any significant environmental impacts to human beings. Sufficient construction control measures have been identified to reduce short-term air quality impacts to the maximum extent practical, and below a level of significance. Adherence to design and construction measures to be defined in a site-specific geotechnical report for this project will ensure that the proposed building is built outside of the area of concern along the campus fault, is designed and constructed to safely withstand potential strong seismic ground shaking forces, and rests upon a stable footing, without endangering any nearby structures.

Appendix A: Construction and Long-Term Emissions Calculations

AIR QUALITY ANALYSIS

UCI ARTS BUILDING

IRVINE, CALIFORNIA

Prepared for:

Planning Research Network
Attn: Randy Nichols
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Newport Beach, CA 92660

Date:

July 9, 2007

Project No.: P07-X08

1 AIR QUALITY IMPACT

1.1 STANDARDS OF SIGNIFICANCE

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact. Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

- a. Conflicts with or obstructs implementation of the applicable air quality plan.
- b. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
- c. Results in a cumulatively considerable net increase of any criteria pollutants 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. Exposes sensitive receptors to substantial pollutant concentrations.
- e. Creates objectionable odors affecting a substantial number of people.

Because of the chemical complexity of primary versus secondary pollutants, the South Coast Air Quality Management District (SCAQMD) has designated significant emissions levels as surrogates for evaluating impact significance independent of chemical transformation processes. Projects in the South Coast Air Basin (SCAB) with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant:

SCAQMD Emissions Significance Thresholds (pounds/day)

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
SOx	150	150
PM-2.5	55	55

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

1.1.1 Additional Indicators

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

The SCAQMD CEQA Handbook also identifies various secondary significance criteria related to toxic, hazardous or odorous air contaminants. Hazardous air contaminants are contained within the small diameter particulate matter ("PM-2.5") fraction of diesel exhaust. Such exhaust will be generated by heavy construction equipment and by diesel-powered delivery or haul trucks.

For PM-2.5 exhaust emissions, recently adopted policies require the gradual conversion of delivery fleets to diesel alternatives, or the use of "clean" diesel if emissions are demonstrated to be as low as those from alternative fuels. Because health risks from toxic air contaminants (TACs) are cumulative over an assumed 70-year lifespan, measurable off-site public health risk from TAC exposure would occur for only a brief portion early in project lifetime, and only in dilute quantity. Students and staff will not be exposed to 70 years of continuous construction activity diesel exhaust as any basis for a potential adverse health impact.

1.2 CONSTRUCTION ACTIVITY IMPACTS

Dust is normally the primary concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive" emissions. Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). These parameters are not known with any reasonable certainty prior to project development and may change from day-to-day. Any assignment of specific parameters to an unknown future date is speculative and conjectural.

Because of the inherent uncertainty in the predictive factors for estimating fugitive dust generation, regulatory agencies typically use one universal "default" factor based on the area disturbed, assuming that all other input parameters into emission rate prediction fall into mid-range average values. This assumption may or may not necessarily be applicable to site-specific conditions on the proposed Arts Building project site. As noted previously, emissions estimation for project-specific fugitive dust sources is therefore characterized by a considerable degree of imprecision.

In the generic dust emissions factor developed by EPA for grading activities, the PM-10 fraction of fugitive dust emissions are predicted to be around 55 pounds per day per acre disturbed in the absence of any dust control measures being applied (SCAQMD Handbook, Table 9-2). Mandatory minimum control measures required by South Coast AQMD in Rule 403 (Fugitive Dust) are generally assumed to reduce this rate by approximately 50 percent. Average daily PM-10 emissions during site grading and other disturbance are stated in the SCAQMD Handbook to be 26.4 pounds/acre. This estimate is based upon required dust control measures in effect in 1993 when the AQMD CEQA Air Quality Handbook was prepared. Rule 403 was subsequently revised to require use of a greater array of fugitive dust control on construction projects. Use of reasonably available control measures (RACMs) for PM-10 such as continual soil wetting, use of supplemental binders, early paving, etc. has been shown to achieve a substantially higher PM-10 control efficiency (≈ 10 pounds/acre/day). With the use of best available control measures (BACMs), daily PM-10 emissions can be reduced to as low as around 2 pounds per day per acre.

The California Air Resources Board (ARB) URBEMIS2007 computer model predicts that the maximum daily disturbance "footprint" for the proposed project will be 0.7 acres. The calculated

PM-10 emissions with the application of “standard” dust control, and with the application of reasonably available dust control measures, are as follows (pounds/day):

Disturbance Area	With Standard Dust Control	With Reasonably Available Control Measures
0.7 acres	18.5 pounds/day	7.0 pounds/day

Use of reasonably available control measures (RACMs) is not required to achieve less-than-significant PM-10 dust emissions. However, because the airshed is non-attainment for PM-10, and because there are numerous dust-sensitive uses adjacent to the project site, use of best available control measures (BACMs) is recommended.

Current research in particulate exposure health effects suggest that the most adverse effect derives from ultra-small diameter particulate matter comprised of chemically reactive pollutants such as sulfates, nitrates or organic material. A national clean air standard for particulate matter of 2.5 microns or smaller in diameter (called "PM-2.5") was adopted in 1997. Very little construction activity particulate matter is in the PM-2.5 range. Soil dust is also more chemically benign than typical urban atmospheric PM-2.5. The limited amount of PM-2.5 within the sub-threshold PM-10 burden further reinforces the finding of a less-than-significant particulate air quality impact.

In addition to fine particles that remain suspended in the atmosphere semi-indefinitely, construction activities generate many larger particles with shorter atmospheric residence times. This dust is comprised mainly of large diameter inert silicates that are chemically non-reactive and are further readily filtered out by human breathing passages. These fugitive dust particles are therefore more of a potential soiling nuisance as they settle out on parked cars, outdoor furniture or landscape foliage rather than any adverse health hazard. With a high population density around the project site, dust nuisance potential must be minimized by good housekeeping and enhanced dust control procedures.

In addition to fugitive dust, equipment exhaust emissions will result from on- and off-site heavy equipment during demolition, excavation, erection of shoring and walls, and finish construction. Construction activity equipment/vehicle exhaust emissions were calculated by combining activity data from the project construction schedule with various types of equipment incorporated into the URBEMIS2007 computer model. The major construction functions will include the excavation and disposal of 5,800 cubic yards of excess soil, placement of structural steel and concrete, and finish construction. On-site equipment exhaust will affect the local community, while hauling activity emissions will be regional in nature. Peak trucking activities were assumed to entail an average of 13 loads per day of excavated soil. Construction activities will be generally sequential such that there is minimal overlap between any function.

The resulting exhaust emissions, compared to the SCAQMD CEQA Handbook thresholds, are as follows (pounds/day):

Activity	ROG	NOx	CO	PM-2.5	PM-10
Excavate & Haul	3.8	35.1	16.0	3.0	8.6
Erection & Finish Work	22.9	21.8	17.8	1.5	1.7
SCAQMD Threshold	75.	100.	550.	55.	150.

Source: URBEMIS2007 Computer Model

None of the emissions will exceed the SCAQMD significance thresholds. The mobile nature of the on-site construction equipment and off-site trucks will also prevent any micro-scale violation of standards. There may be localized instances when the characteristic diesel exhaust odor is noticeable from passing trucks or nearby heavy equipment. Truck exhaust impacts can be minimized by controlling construction routes to reduce interference with non-project traffic patterns and to preclude truck queuing or idling near sensitive receptor sites. State law requires that any truck waiting to load or unload must turn off its engine if the expected wait is more than five (5) minutes unless engine power is needed for the activity (such as cement mixer trucks).

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. Public exposure to heavy equipment operating will be an extremely small fraction of the above dosage assumption. Diesel equipment is also becoming progressively "cleaner" in response to air quality rules on new off-road equipment. Any public health risk associated with project-related heavy equipment operations exhaust is therefore not quantifiable, but small.

Construction activity air quality impacts occur mainly in close proximity to the surface disturbance area. There may, however, be some "spill-over" into the surrounding community. That spill-over may be physical as vehicles drop or carry out dirt or silt is washed into public streets. Passing non-project vehicles then pulverize the dirt to create off-site dust impacts. "Spillover" may also occur via congestion effects. Construction may entail roadway encroachment, detours, lane closures and competition between construction vehicles (trucks and contractor employee commuting) and ambient traffic for available roadway capacity. Emissions controls require good housekeeping procedures and a construction traffic management plan that will maintain such "spill-over" effects at a less-than-significant level.

2

As part of the SCAQMD Environmental Justice initiative, the air district has developed air quality threshold levels to insure that no economically or socially disadvantaged community is exposed to any disproportionate share of additional air pollution. The SCAQMD has recommended that these local significance thresholds (LST) be applied to CEQA analyses for both construction and project operations anywhere in the air basin. Use of LST's is optional and voluntary for CEQA air quality impact analysis and a community such as Irvine is not socially or economically disadvantaged. Project-related emissions have therefore been compared to LST thresholds as an information item, but not as an applicable impact significance threshold.

The URBEMIS model estimates that the daily construction "footprint" will be less than one acre. Construction activity LSTs close for a site with one acre of simultaneous disturbance acreage are as follows (pounds/day) at the perimeter of the activity:

	CO	NOx	Fugitive Dust PM-10	Exhaust PM-2.5
LST Threshold	352	160	4	3
Proposed Project	16-18	22-35	2-9	2-3

All emissions except PM-10 during the excavation phase will be below the suggested LST thresholds if only RACMs for PM-10 are used. However, with the use of recommended BACMs, the attached URMEMIS2002 model printout shows that PM-10 emissions will be reduced to 1.66 pounds per day or less. Use of BACMs will reduce local PM-10 impacts to below the LST threshold. Exhaust PM-2.5 emissions are below the LST threshold, and will be further reduced by recommended use of soot traps for construction equipment.

2.1.1 Operational Impacts

Based upon trip generation rates for university offices, the proposed project will generate 418 ADT. A typical university trip length in Orange County is 10 miles (longer commuting, shorter business activities). Around 4,000 vehicle miles traveled (VMT) will be added to the basin-wide mobile source emissions burden of around 300,000,000 VMT per day.

Secondary impact potential will derive from energy consumption in power plants or on-site heaters, stoves, water heaters, etc. Office space development also creates minor secondary emissions from a variety of sources such as cleaning products or landscaping equipment. Except for more readily quantifiable energy consumption (stationary sources), many of the small miscellaneous sources are typically not quantified on a single project basis. These small sources, however, are non-negligible when minute individual contributions are summed over millions of Southern California residences. They further attest to the conclusion that overall anticipated growth is a substantial impediment to the attainment of regional clean air standards.

The California ARB land use and air pollution emissions URBEMIS2007 computer model was run for a year 2010 project build-out. The project-related vehicular emissions burden is shown in Table 1. Thresholds will not be exceeded for any of the pollutants analyzed. The proposed project is too small to have a measurable air quality impact.

Table 1

**Project-Operations Air Pollution Emissions
(pounds/day)**

Source	ROG	NOx	CO	PM-10	PM-2.5
Operational (Vehicle) Emission Estimates	3.5	4.2	41.9	7.3	1.4
Area Source Emission Estimates*	0.5	0.4	1.9	0.0	0.0
Total: Operational + Areas	4.0	4.6	43.8	7.3	1.4
SCAQMD Significance Threshold	55	55	550	150	55
Exceeds Threshold (?)	No	No	No	No	No
% of Threshold	7	8	8	5	3

*Energy consumption, landscape maintenance, etc.

Source: URBEMIS2007 Air Quality Model

3 IMPACT MITIGATION

Air quality impacts during construction will not exceed significance threshold levels. Even though the construction activity PM-10 emissions are maintained below SCAQMD thresholds, any increase in air pollution in a non-attainment area should be considered as an adverse impact and reduced to the extent reasonable and feasible. Emissions from construction activities should therefore be minimized where possible. SCAQMD Rule 403 requires use of at least one dust control measure. An enhanced program incorporating multiple measures is recommended, including:

- Using adequate water for dust control (preferably reclaimed water), including either paving, or applying water four times daily to all unpaved parking or staging areas.
- Cover, or water twice daily, any on-site stockpiles of crushed cement, debris, dirt or other dusty material.
- Operating street sweepers or roadway washing trucks on adjacent roadways to remove dirt dropped by construction vehicles or dried mud carried off by trucks moving dirt or bringing construction materials within one hour of observable spillage or track out.
- Covering trucks or wetting down loads of any dirt hauled to or from the project site.
- Requiring on-site contractors to operate a congestion relief program including:
 - ❖ Rideshare incentives for construction personnel
 - ❖ Off-street parking for construction contractors
 - ❖ Lane closures limited to non-peak traffic hours
 - ❖ Receipt of construction materials scheduled for non-peak traffic periods where possible
- Soil disturbance shall be terminated if winds exceed 25 mph.
- Trucks and construction equipment shall be turned off if their idle period exceeds five (5) minutes.
- Soot traps shall be required for all off-road diesel-powered equipment exceeding 100 HP unless the contractor demonstrates that their use is infeasible on this project.

APPENDIX

URBEMIS2007 Computer Model Output



Appendix B: Hazardous Materials Database Search Results

Appendix C: Traffic Impact Analysis