CALIFORNIA COMMUNITY COLLEGES
AND
SADDLEBACK
COMMUNITY COLLEGE DISTRICT

#91-0037
<table>
<thead>
<tr>
<th>FISCAL YEAR</th>
<th>ID NUMBER</th>
<th>COLLEGE</th>
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<tbody>
<tr>
<td>1991-92</td>
<td>91-0037</td>
<td>Irvine Valley</td>
<td>Saddelback</td>
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</table>

**Project Title**

**Loan for Acquisition of Rear Projection Video Equipment**

<table>
<thead>
<tr>
<th>FUNDING CATEGORY &amp; AWARD</th>
<th>ELIGIBLE PROGRAM</th>
<th>PROJECT CATEGORY</th>
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<tbody>
<tr>
<td>Loan = $50,000</td>
<td>B --- Improving Teaching Abilities</td>
<td></td>
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<tr>
<th>PROJECT PRODUCT</th>
<th>PROJECT TOPIC #1</th>
<th>PROJECT TOPIC #2</th>
<th>ACADEMIC SUBJECT</th>
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<tbody>
<tr>
<td>Faculty/Staff Develop</td>
<td>Multi-Media</td>
<td></td>
<td>Engineering/Drafting</td>
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**Project Director**

J. Anthony Carcamo, Vice Chancellor

**Proposal Description**

The project proposes to purchase rear-projection video equipment to deliver computer-aided mechanical and electronic design material, high-quality computer-graphics, and high-resolution multimedia presentations. In addition to enhancing the teaching of computer aided design and manufacturing, the purchased equipment will be used to train faculty in the use of multimedia technology.
This project addresses the Fund approved program for improving the teaching abilities of faculty members.

Irvine Valley College proposes to acquire a large screen, rear projection, multi-input video display.

Effective presentation of computer aided mechanical and electronic design material, high quality computer presentation graphics, and multi media presentations require high resolution, large screen video display equipment for presentation to class size or larger groups. As a result of the limitations of existing equipment, instructors who might benefit most from the use suitable display often conduct their lectures without adequate media support.

The display equipment will serve students in computer aided engineering and electronic drafting classes. It would be used in the college computer integrated manufacturing demonstration, which serves manufacturing technology students. Advanced computer graphics, and multi media students would also benefit from instructional presentations using this equipment.

The equipment will have the capability to display NTSC video and data ranging from CGA to very high resolution (IBM 5080) computer text and graphics, and the ability to switch from one mode to another without manual adjustments.

The equipment will not only serve to enhance teaching of computer aided design, computer aided manufacturing, computer integrated manufacturing, and electronic circuit board design classes, but will also be used to train faculty in the use of multi media technology using the multi input display, specialized presentation software, and other video and audio presentation equipment.

At the outset, the project will directly benefit about engineering and manufacturing students per year. The college expects these programs to grow substantially and, therefore, anticipates much more far reaching benefits in the future. It is anticipated that the ability for Irvine Valley College to assume a leadership role in the demonstration smooth, effective use of multimedia
technology for pedagogical purposes would be highly beneficial to other institutions.

The college proposes to evaluate the effectiveness of the project using course-end and post demonstration questionnaires, and narrative evaluations from faculty users.

The results of this project will be disseminated through public demonstrations of the equipment, and at least one presentation at a meeting of a suitable professional organization.
Loan for Acquiring Rear Projection Video Equipment --- Using Large Screen Rear Projection to Enhance Courses which Involve Computer Assistance

1. Specific Educational Program Being Addressed

Funding Area

This project addresses the Fund approved program for improving the teaching abilities of faculty members.
2. Specific Problems Being Addressed

Specific Problems Addressed

Effective presentation of computer aided mechanical and electronic design material, high quality computer presentation graphics, and multi media presentations require high resolution, large screen video display equipment for presentation to class size or larger groups. Ideally, classroom presentations should be made with sufficient ambient light for note taking and student interaction with the instructor. While the college has used specialized data projection equipment for some time in business computer applications classes, we do not have the capability to display the higher quality computer aided design graphics or the multi input capability required for multi media presentations. Moreover, most display equipment available at this time must be operated in a nearly dark room for satisfactory viewing.

As a result of the limitations of existing equipment, instructors who might benefit most from the use suitable display often conduct their lectures without adequate media support.
3. Population To Be Served

Populations to Be Served

The display equipment will serve students in computer aided engineering and electronic drafting classes. It would be used in the college computer integrated manufacturing demonstration, which serves manufacturing technology students. Advanced computer graphics, and multi media students would also benefit from instructional presentations using this equipment.
4. Objectives

Proposal Objectives

To acquire and install a large screen, rear projection display with the capability to display NTSC video and data ranging from CGA to very high resolution (IBM 5080) computer text and graphics, and the ability to switch from one mode to another without manual adjustments.

To enhance teaching of computer aided design, computer aided manufacturing, computer integrated manufacturing, and electronic circuit board design classes with the support of the large screen, multi input display.

To train faculty in the use of multimedia technology using the multi input display, specialized presentation software, and other video and audio presentation equipment.
5. Workplan Narrative

[NO “WORKPLAN” ACCOMPANIES THIS DOCUMENT.]
6. Expected Outcomes

Expected Outcomes

Project Objectives. Upon installation of the rear projection unit, classes in computer aided design, computer aided manufacturing, computer integrated manufacturing, and electronic circuit board design will have the benefit of large screen video support regardless of the signal source. All college faculty will have access to a state of the art electronic for experimental and demonstration purposes.

Impact of the Project. At the outset, the project will directly benefit about 200 engineering and manufacturing students per year. The college expects these programs to grow substantially and, therefore, anticipates much more far reaching benefits in the future. Faculty members will have the opportunity to observe, test, and implement more up to date multi media presentations than has been heretofore the case.

Potential for Continued Support. The college has a highly trained staff of computer and video technicians. Continued support of this project would become part of their daily routine.

Potential for Adaptation to Other Institutions or Programs. Using rented equipment, the college has already demonstrated the use of multi-input video technology to other institutions involved in the Computer Integrated Manufacturing in Higher Education (CIM/HE) alliance on to the statewide professional business educator's group. It is anticipated that the ability for Irvine Valley College to assume a leadership role in the demonstration smooth, effective use of multimedia technology for pedagogical purposes would be highly beneficial to other institutions.
7. Evaluation Plan

Evaluation Plan

Faculty members who use the equipment will include specific questions in their end of course questionnaires regarding the effectiveness of their media presentations.

Evaluation questionnaires for demonstrations of the college's computer integrated manufacturing program, will specifically address the effectiveness of the presentation.

Faculty members who use the equipment will be asked to submit narrative evaluations following each full use (i.e. each course, each demonstration, each experimental use).

A discussion of all evaluation results will be included in the Dean of instructional Resources Annual Report.
8. Dissemination Plan

Dissemination Plan

The college computer integrated manufacturing demonstration will be used as one vehicle for dissemination of the project. The demonstration is conducted monthly, and representatives from other CIM institutions are routinely invited.

Following one year’s experience with the equipment a college faculty member will prepare a paper for presentation at a meeting of a suitable professional organization such as Directors of Educational Technology/California Higher Education or Learning Resources Association of California Community Colleges.
9. Budget Narrative

[NO “BUDGET NARRATIVE” ACCOMPANIES THIS DOCUMENT.]