ACADEMIC NEED AND USES FOR
THE PROPOSED COMPUTER NETWORK
ON RCC CITY CAMPUS

1. The proposed City Campus Network is needed for the City Campus to interface with RCC Norco Campus and Moreno Valley Campus to complete the RCCD Intranet.

2. Norco and Moreno Valley networks have a NetBuilder DS3 interface, an ATM backbone, and switched 10/100 Mbps Ethernet to the desktop. These were installed as part of secondary effects funding. They will combine video, voice and data for transmission on a DS3 telephone line.

3. City Campus has fiber ready to install the new network. All computers purchased for the past two years and many of our older computers accept 10/100 Mbps Ethernet. City Campus lacks the NetBuilder, ATM Interfaces, and switched hubs needed to complete the three-campus Intranet.

4. The Intranet will have ten times the capacity of the existing telephone and data connections. It will facilitate the use of electronic libraries, online courses, two-way video, and central distribution of video lessons to classrooms.

5. Existing computer networks on the City Campus do not have the capacity for instructional video or interactive multimedia. There is currently *no* electronic distribution system for video.

6. This proposal provides the basic infrastructure to support every classroom, laboratory and faculty office. It connects the RCCD Intranet and the Internet to every building. *It does not include fiber or copper to connect each classroom, laboratory, and faculty office. These will be done, based on demand, from technology budgets provided by the Chancellor's Office.* (Note: Some faculty offices already have network connections.)

7. From an instructional point-of-view, the proposed network will initiate or expand the following services between RCC campuses:
   a) Sharing library resources. RCC library resources and databases stored in digital format will be accessible on all RCC campuses.
   b) Sharing video resources. *Existing City Campus networks cannot share video from broadcast, cable, satellite, classroom-studios, or video playback from tape. Currently it is necessary to make and/or transport videotapes and ship them between campuses.* The proposed network will enable multiple-campus classes where a single campus does not have enough students for the class to make; it will facilitate efficient sharing of video library resources; and it will facilitate joint meetings for district-wide committees.
   c) Sharing RCC online courses. Courses and learning resources stored on RCC file-servers and CD-ROM servers can be accessed in RCC laboratories and connected classroom on any RCC campus.

d) <u>Access in classrooms</u>. As classrooms are connected, services a-c above will be available for instructors to use in classroom instruction.

e) <u>Network management</u>. When the proposed City Campus network is installed, levels of network traffic can be observed and managed from anywhere in the system. In event of problems, it will be possible to troubleshoot and in many instances correct network problems from any point in the system. This will save time and reduce the number of technicians needed for efficient operation.

8. From an instructional point-of-view, the proposed City Campus network will initiate or expand access to the following external services:

a) <u>Access to electronic libraries</u>. This includes a large number of library services and Internet based services such as Yahoo and Alta Vista.

b) <u>Sharing video resources</u>. A single connect point to broadcast, cable or satellite can service all three campuses. It will increase options for reception of satellite classes. It will also permit RCC telecourses to be distributed from a single cable head-end.

c) <u>Sharing online courses</u>. A single connection to the Internet can efficiently support all three campuses. From a security point of view, it is easier to manage one connection; from a cost point of view one large connection is much less expensive then three smaller ones.

9. <u>City Campus is the Weak Link in the System</u>. The Norco and Moreno Valley campus networks cannot be used effectively until the City Campus network is installed. At that point the three campuses will be one Intranet with broadband connectivity.

10. <u>Jobs require graduates to have networked-computer skills</u>. Business, industry and government are making extensive use of computers, networks, and the Internet in their daily activities. There are relatively few jobs that do not or will not require such skills. For this reason, access to computers with a wide range of network services is essential for RCC to train its students so they are knowledgeable and competitive in information age jobs and environments.