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March 4, 2009

**ACTION UNDER PRESIDENT'S AUTHORITY—AMENDMENT OF THE BUDGET
FOR CAPITAL IMPROVEMENTS AND THE CAPITAL IMPROVEMENT PROGRAM
AND APPROVAL OF EXTERNAL FINANCING, NEXT GENERATION
METROPOLITAN AREA NETWORK, SAN FRANCISCO CAMPUS**

It is recommended that:

Pursuant to Standing Order 100.4(q)

- (1) The President amend the 2008-09 Budget for Capital Improvements and the Capital Improvement Program to include the following project:

San Francisco: Next Generation Metropolitan Area Network – preliminary plans, working drawings, construction, and equipment - \$9,800,000 to be funded from external financing.

Pursuant to Standing Order 100.4(nn)

- (2) The President authorizes external financing not to exceed \$9,800,000 to finance the Next Generation Metropolitan Area Network project. The President requires that:
- a. Interest only, based on the amount drawn down, shall be paid on the outstanding balance during the construction period;
 - b. As long as the debt is outstanding, the San Francisco campus' share of Federal Indirect Cost Recovery deposited to Fund 19933, shall be maintained in amounts sufficient to pay debt service and to meet the related requirements of the authorized financing; and
 - c. The general credit of the Regents shall not be pledged.
- (3) The Officers of the Regents be authorized to execute all documents necessary in connection with the above.

2008-09 Budget for Capital Improvements
And Capital Improvement Program
Scheduled for
Regent's Allocations, Loans, Income Reserves, University Registration Fee Reserves,
Gift Funds and Miscellaneous Funds

<u>Campus and Project Title</u> <u>(Total Cost)</u>		<u>Proposed</u> <u>2008-09</u>	
<u>San Francisco</u>			
Next Generation	P	647,000	External Financing
Metropolitan Area	W	385,000	External Financing
Network	C	7,820,000	External Financing
	E	948,000	External Financing
(\$9,800,000)			

Description

The San Francisco campus requests approval for the Next Generation Metropolitan Area Network (NGMAN) project at a total cost of \$9,800,000 to be funded from external financing.

The NGMAN project would upgrade the data/voice network at five UCSF campus sites (Parnassus Heights (PHts), Mission Bay (MB), Mission Center Building (MCB), 654 Minnesota, Laurel Heights (LHts)) and one affiliated site, San Francisco General Hospital (SFGH). In December 2007, the Chancellor approved preliminary funding for three initial sites - Parnassus Heights, Mission Center Building, and Mission Bay - as a campus-funded project for \$3,145,000 in the anticipation of the full project scope going forward. Full scope was identified and for continuity of service and installation efficiencies, the campus is combining this previously approved project with the remaining sites - Laurel Heights, 654 Minnesota, and San Francisco General Hospital - for a total project cost of \$9,800,000 funded from external financing.

Background

The current UCSF campus network architecture and supporting infrastructure was designed more than a decade ago to provide basic email and general web access. Since then, the number of devices (research, medical, and administrative) connected to the network has grown from 25,000 to 50,000. Additionally, more intensive applications such as voice and video conferencing, as well as research applications that require high-speed performance and massive storage capacity, have resulted in degraded network service levels. Research and medical devices such as Computed Tomography Scanners, Magnetic Resonance Imagers, X-Ray equipment and heart monitors routinely send data across the network. Health sciences researchers rely heavily on the network. As the network traffic and storage capacity grows, the system capabilities continue to degrade.

The complete NGMAN project implements the UCSF Strategic Plan goals to improve information technology, support academic teaching, research, and clinical training. The NGMAN network would replace the existing fifteen-year old Synchronous Optical Network (SONET) and provide greater reliability in operating systems to support data communication. The upgrades identified in this project encompass all the necessary elements of a complete system at this time.

Project Description

The NGMAN project would upgrade the data/voice network at five UCSF campus sites: PHTs, MB, MCB, 654 Minnesota, LHts and one affiliated site, SFGH. The scope of work includes upgrading infrastructure-serving data communication rooms through the provision of environmental controls now lacking, such as air conditioning, emergency battery power backup and lighting. The project would also install new carrier circuits that allow Local Area Networks to communicate with each other. A new fiber optic system with Dense Wave Division Multiplexing (DWDM) would be installed from the NGMAN carrier to the data communication rooms, which would allow a multiplication in capacity, as well as bidirectional communication over one strand of fiber. New Ethernet switches and routers with enhanced software capabilities also would be installed. The renovated spaces would accommodate telecommunication equipment for the NGMAN network, a network designed to provide efficient, scalable, reliable network operations among the various campus locations as well as potential future sites. New seismic bracing would be installed to secure new equipment rack systems. All work would occur within the interior of existing structures and would not result in an expanded use of the identified sites.

The initial construction phase of the work began in October of 2008 at the three initial sites - Parnassus Heights, Mission Center Building, Mission Bay - and would begin upon approval for the remaining sites - Laurel Heights, 654 Minnesota, and San Francisco General Hospital. Completion of the proposed combined projects is anticipated in August of 2009.

Project Delivery Strategy

Consistent with initial construction phase, the vendors' scope of work would include the design and construction of new pathways from the property line of each campus facility directly to the designated data communication rooms. The NGMAN service provider would furnish and install fiber through its own pathway in the public right of way (city streets), connecting to the UCSF pathway beginning at the property line through the UCSF pathway and into the respective data communication rooms.

Policy on Sustainable Practices

This project will comply with the *University of California Policy on Sustainable Practices*. As required by this policy, the project will adopt the principles of energy efficiency and sustainability to the fullest extent possible, consistent with budgetary constraints and regulatory and programmatic requirements.

CEQA Classification

Pursuant to State law and University procedures for the implementation of the California Environmental Quality Act (CEQA), it is anticipated that the NGMAN project would be categorically exempt under CEQA Section 15301, Class 1, Existing Facilities and would not result in a significant effect in the environment and involves no or negligible expansion of use at the sites. The University will conduct CEQA review at the time of project approval.

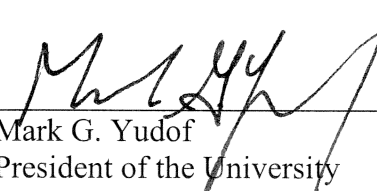
Financial Feasibility

The total cost of \$9,800,000 would be funded from external financing.

The campus would use its share of the Federal indirect cost recovery deposited to campus University General Funds (Fund 19933) as the source of repayment for the external financing. The projected annual debt service would be approximately \$993,000, calculated at an interest rate of 5.75 percent for fifteen years. Total projected annual debt service, including the existing annual debt service and the projected annual debt service for this proposed project, would be approximately \$5,143,000, which results in debt service coverage of 5.32 times. The external financing will be paid from revenue sources specified in the external financing documents; therefore, the general credit of the Regents will not be pledged.

A summary of the financial feasibility analysis is presented in Attachment 2.

Approved by:

 3/15/09

Mark G. Yudof Date
President of the University

Attachments

PROJECT STATISTICS
NEXT GENERATION METROPLITAN AREA NETWORK (NGMAN)
CAPITAL IMPROVEMENT BUDGET
SAN FRANCISCO CAMPUS
CCCI 5300

<u>Cost Category</u>	<u>PPG #1</u>	<u>PPG #2</u>	<u>Total</u> <u>Amount</u>	<u>% of Total</u>
	(Core Sites)	(Secondary Sites)		
Site Clearance	\$ 0	\$ 0	\$ 0	
Construction	\$ 2,845,000	\$ 4,261,000	\$ 7,106,000	80.3%
Exterior Utilities	\$ 0	\$ 0	\$ 0	
Site Development	\$ 0	\$ 0	\$ 0	
A/E Fees ^(a)	\$ 339,000	\$ 479,000	\$ 818,000	9.2%
Campus Administration	\$ 151,000	\$ 150,000	\$ 301,000	3.4%
Surveys, Tests	\$ 32,000	\$ 21,000	\$ 53,000	0.6%
Special Items ^(b)	\$ 42,000	\$ 370,000	\$ 412,000	4.7%
Contingency	\$ <u>134,000</u>	\$ <u>28,000</u>	\$ <u>162,000</u>	1.8%
Total	\$ 3,543,000	\$ 5,309,000	\$ 8,852,000	100.0%
Group 2 & 3 Equipment	\$ 0	\$ 948,000	\$ 948,000	
Total Project	\$ 3,543,000	\$ 6,257,000	\$ 9,800,000	

Statistics are not included due to the nature of this project. There are no comparable UC projects.

(a) A/E fees include consulting engineer and architect services including "additional" basic services and reimbursables.

(b) Special items include EH&S/ENS Fees and capitalized interest of \$370,000 totaling \$412,000.

SUMMARY FINANCIAL FEASIBILITY ANALYSIS

Project Title: Next Generation Metropolitan Area Network

Total Estimated Project Cost: \$ 9,800,000

Proposed Sources of Funding:

External Financing \$ 9,800,000

Proposed Financing Terms:

Interest Rate: 5.75%
Duration: 15 years

Repayment Source:

Campus Allocation of Fund 19933 \$ 22,768,000

Estimated Annual Expense:

Existing Debt Service Commitments \$ 4,150,000

Projected Annual Debt Service for this project \$ 993,000

Total Debt Service \$ 5,143,000

Debt Service Coverage Ratio 5.32x