Hunt Institute for Botanical Documentation
5th Floor, Hunt Library
Carnegie Mellon University
4909 Frew Street
Pittsburgh, PA 15213-3890
Telephone: 412-268-2434
Email: huntinst@andrew.cmu.edu
Web site: www.huntbotanical.org

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About the Institute
The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

"COMPLETELY INADEQUITE"

Rogers Throws Stones At Glass Houses

By NANCY BENTSON

"Look at those beams. They probably haven't been painted for ten years," biology professor David J. Rogers said.

"They were probably never painted," the caretaker retorted.

The beams Rogers was referring to are the beams of one of three "greenhouse" buildings on the University campus. Greenhouse in quotes because, according to Rogers, the greenhouses are not really greenhouses at all.

"THEY HAVE no heat controls, no light controls, no moisture controls," Rogers said. "The buildings are completely inadequate in every way."

"Oh, the greenhouses are full," Rogers said, "chock full of junk because there is no use trying to put good experiments in there."

The University has never "bought" a greenhouse, Rogers said. The buildings were given to the school by the Shell Oil Company about 9 years ago.

If the Biology professors have their way, the University will be buying one or more greenhouses soon. Rogers listed their aims as follows:

— Repair work on the buildings east of Macky. "If nothing else we would at least like an automatic thermostat," Rogers said.

—A search for federal and state funds.

— A general student greenhouse with 1200 square feet which will be divided into three general temperature areas. This structure could be the second story to a controlled growth chamber. The growth chamber, Rogers said, would actually be a battery of chambers which would have exact controls for light, winds and moisture.

— A display and teaching greenhouse which would serve as a conservatory where students can observe all varieties of plant life." A living plant is a far better demonstration than a dried up, squashed brown thing in a bottle," Rogers said.

THE FACILITIES offered at this University now, Rogers said, are equivalent to those at a small Pennsylvania college he attended fifteen years ago. "And that's pretty ridiculous," he said.

The best greenhouse on campus now, Rogers said, is located in the basement of the armory building on University drive. It is a structure which measures about 3' by 5' and was built by a graduate student at his own expesne. "He was unable to get any space in the University greenhouses," Rogers said, "and even if he could have, they wouldn't have done him any good."

Rogers himself has plants in the University greenhouses. "And they are rapidly dying," he said. He brought the plants from Fort Collins where he taught for two years before coming to CU three months ago.

"A biology department without a greenhouse is as useless as a secretary without a typewriter," Rogers said. He said it is possible now for a biology or botany major to complete four years of school without ever carrying out a greenhouse project.

Research is being done in the present greenhouses. Biology professor Erik Bonde, for example, is studying the effects of day length on the growth and flowering of a local plant, the yarrow. For this project,black boxes are lowered over the specimens to simulate nighttime. "Professor Bonde built this with his own hands at his own expense," Rogers said. What is done is done by the professors themselves, Rogers commented, since they must go through miles of red tape "To get a flower pot."

Askell Love, chairman of the biology department, is attempting research in the greenhouses east of Macky. However, as the greenhouse lacks any kind of automatic temperature control, the thermostat is operated "by hand" by the caretaker Irving Nelson.

"I call it guessmatics," Nelson said. "I estimate at night how cold it might get. Sometimes it is 80 in here in the morning; sometimes it is 55."

The biology professors are beginning to organize their campaign. "We are going to get something done", Rogers said. "At least get the administration to come look."

JUSTIFICATION FOR GREENHOUSES

A greenhouse is as essential to teaching and research in Biology as any other instrument in modern science. While greenhouses may lack the glamor of a computer or an electron microscope, they are for the biological operation the essential requirement before these more effete instruments can be properly employed. The greenhouse provides an opportunity to sample the world's diversity of organisms in microcosm. In these days of direction toward standardization and uniformity (and conformity) it is critical that biologists focus the attention of mankind on the diversity of life other than himself. The reasons for such focus are fundamental. The loss of gene pools because we fail to maintain diversity is as bad to life itself as for the banker to use up his principal. The greenhouse allows students and teachers in biology the opportunity to keep in focus this diversity in an environment (such as the state of Colorado) wherein there is little opportunity to see more than a very small sample of earth's biota.

The types of greenhouse requested herewith give the flexibility necessary for modern-day study. Several forms of greenhouse will be required, from the more conventional type to those where very precise control of light, heat, moisture and a host of other variables can be maintained (growth chambers). If there be a priority assignable to the construction of greenhouses I would suggest the general greenhouse built over the growth chambers should be the first, followed by the display or conservatory house, but this priority does not indicate that either should be neglected, because one is as important as the other.

The greenhouse serves both zoological and botanical endeavor and its application is only restricted by the ingenuity (or lack thereof) of the biologist. If we are to attract an ever increasing and ever improving faculty, we must provide these greenhouses.

GREENHOUSE

Request that the following greenhouse construction activities be approved:

1. Immediate repair to greenhouse by Macky auditorium, including automatic control valves for heat; reglazing the windows, rebuilding of benches; building of a small head-house to provide necessary work area and storage space.

2. Approval and fund-seeking for greenhouses to be constructed adjacent to Hale Hall of Science as follows:

A. General student (undergraduate and graduate) greenhouse with 900 sq. feet of bench space, divided into three general areas: moist, hot; cool, moist; and medium, average (ambient). This unit may be placed as the second story over the following needed facility:

B. A building for growth chambers, with the quality of uniform temperatures to contain a battery of growth chambers, each with its own environmental conditions.

C. A controlled greenhouse (different from A) for advanced classes and research in plant physiology and genetics.

D. Display and teaching greenhouse. This facility, sometimes called a "conservatory", is not a large structure, perhaps only with 500 square feet, but is vitally important to this campus and to the state as a whole. One of the most certain ways to attract students to the study of biology is through such structures. It also serves the lay public as an educational and enjoyable experience. The University of Indiana's greenhouse built to serve this purpose has been a demonstrable success in this area. To my knowledge, except for Denver, no other facility of this sort exists in the Rocky Mountain area.

BY AIR MAIL
PAR AVION

Green house
floor plan from
Valentine - England

Doctor A. Löve,
Department of Biology,
University of Colorado,
BOULDER,
Colorado, 80302,
U.S.A.

UNIVERSITY OF MANCHESTER.

D. H. VALENTINE, M.A., Ph.D.
PROFESSOR OF BOTANY
TELEPHONE: ARDWICK 3333, EXT. 330

DEPARTMENT OF BOTANY
THE UNIVERSITY
MANCHESTER, 13

14th September, 1967.

AIRMAIL.

Dear Askell,

I have got a fairly comprehensive drawing of our new greenhouse for you. Here are some notes about it.

It is heated from a boiler house by means of low pressure hot water and is ventilated by Ventaxia fans. Humidifiers are fitted in every cubicle and there is temperature and humidity control. We have not yet fitted any blinds as we were short of money, so that the temperature does get somewhat out of control in the summer though not unreasonably so. The whole house is insect proofed by means of a fabric called Tygan which is a kind of nylon fabric with a very close weave. The house is constructed of Western Red Cedar.

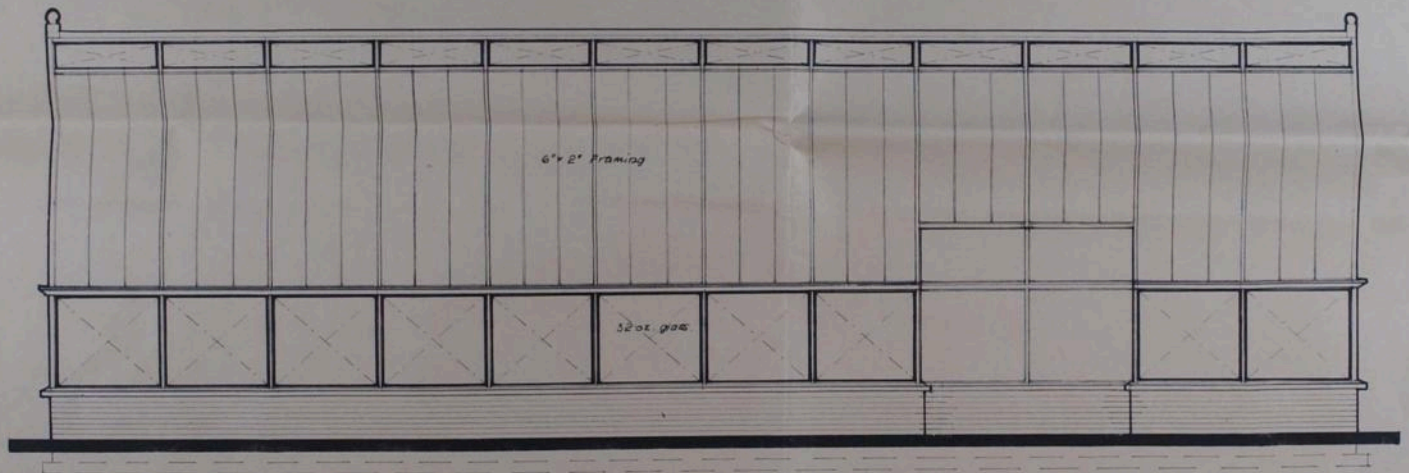
I hope that this will give you what you need. If you want further details let me know and I will try and get them for you.

I trust you had a good journey home. It was nice to see you. As you know I intended to go on to the Birmingham conference on Chemotaxonomy this evening, but because of the rail strike, transport is very uncertain so I am staying at home instead and getting on with some work.

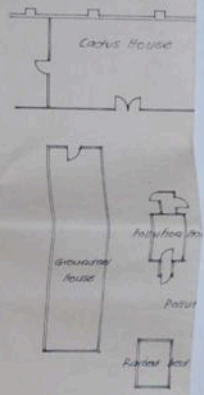
Joan joins me in sending very kind regards to Doris and yourself.

Yours,

Doctor A. Löve,
Department of Biology,
University of Colorado,
BOULDER,
Colorado, 80302,
U.S.A.

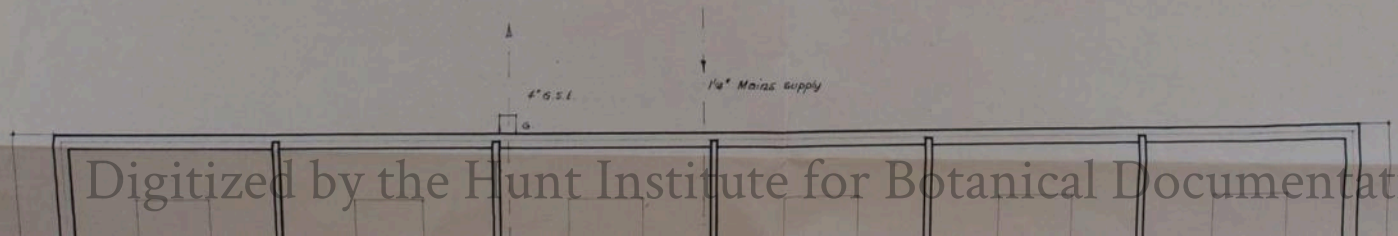


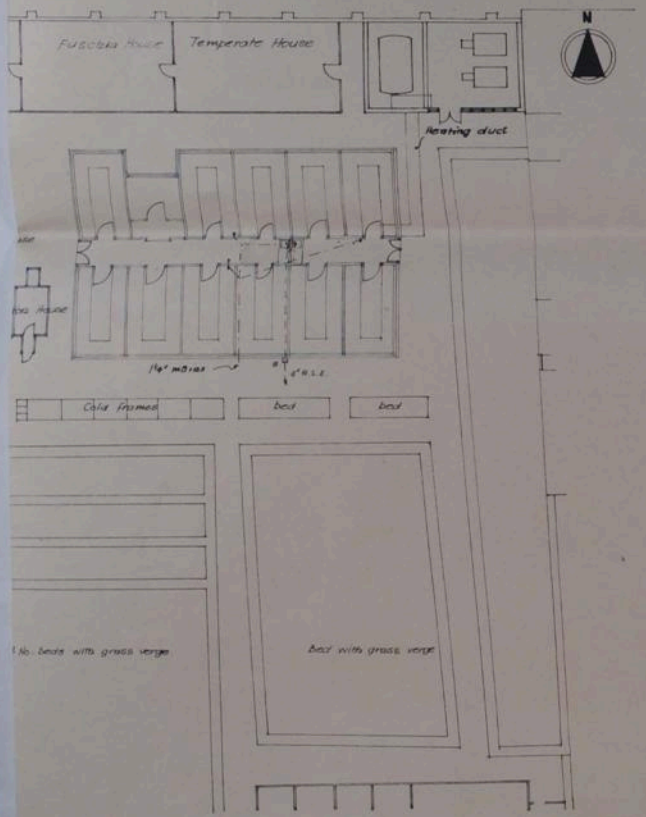
NORTH ELEVATION



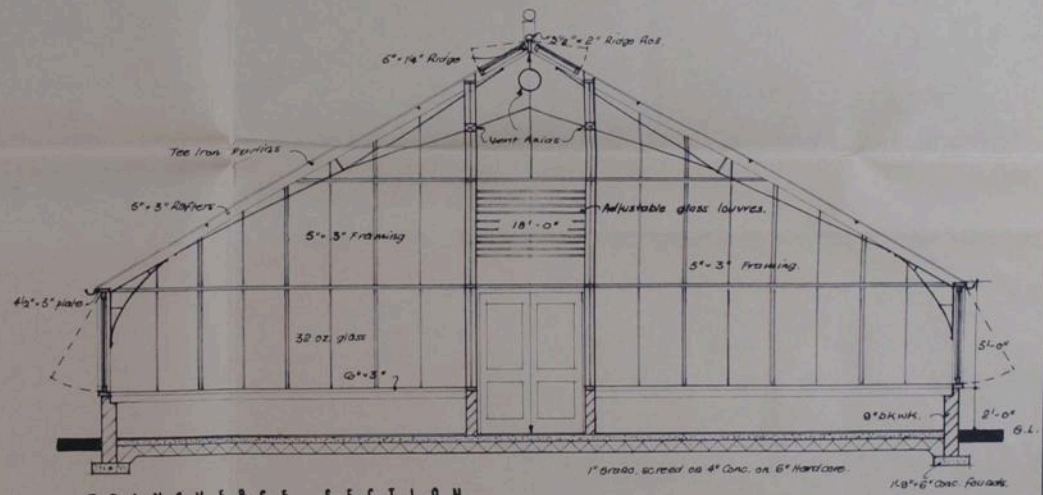
LOCATION

SCALE 1/16" = 1'

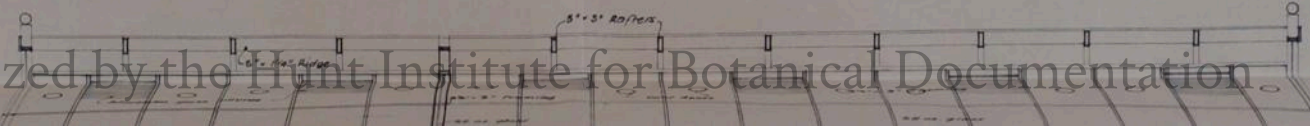


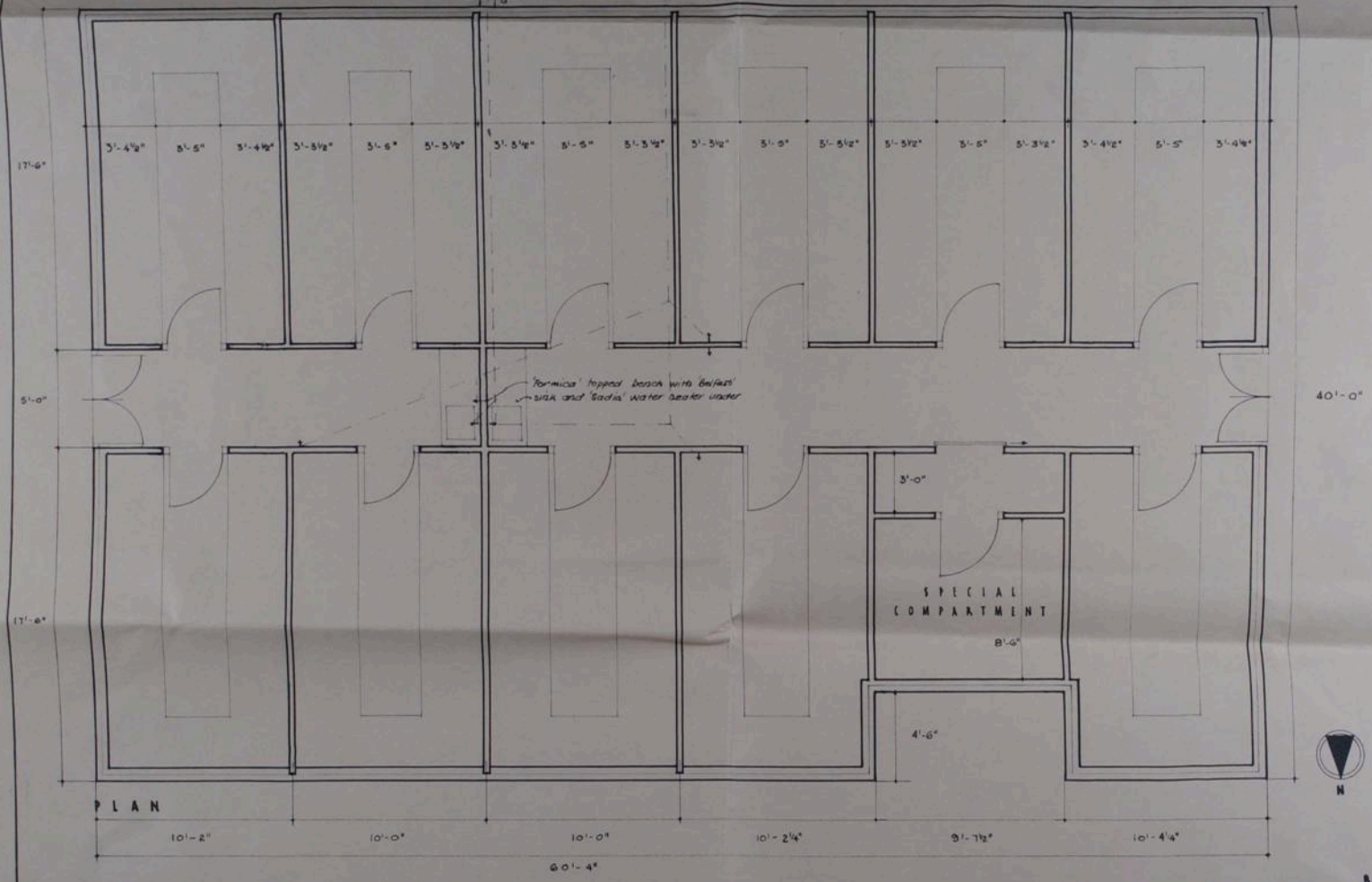


PLAN



TRANSVERSE SECTION





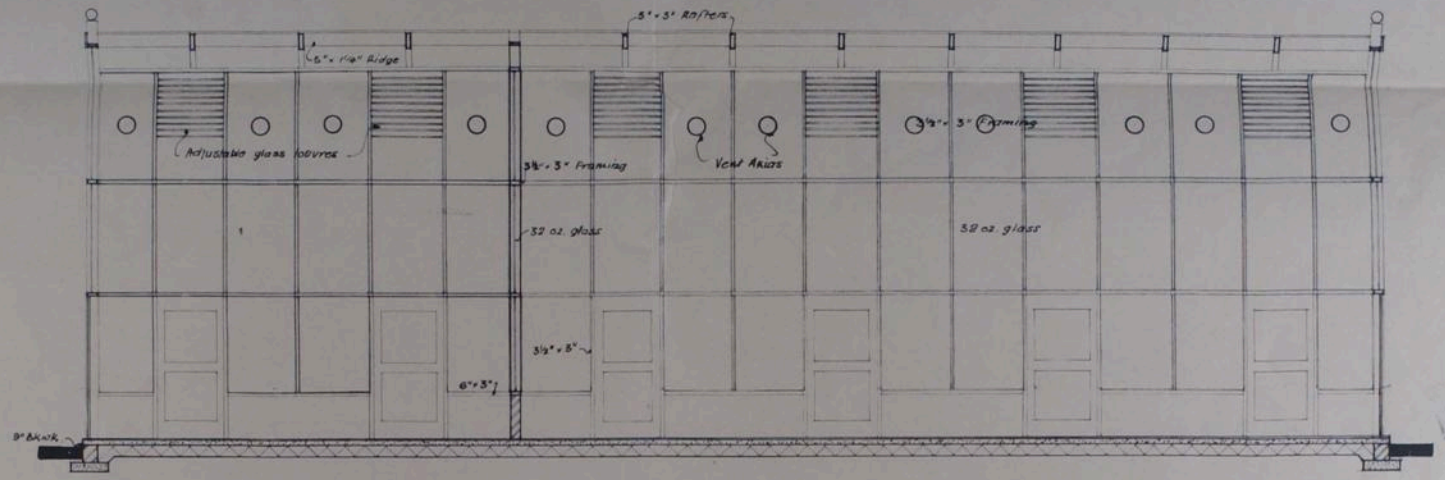
LOCATION

SCALE - 1/16" - 1'

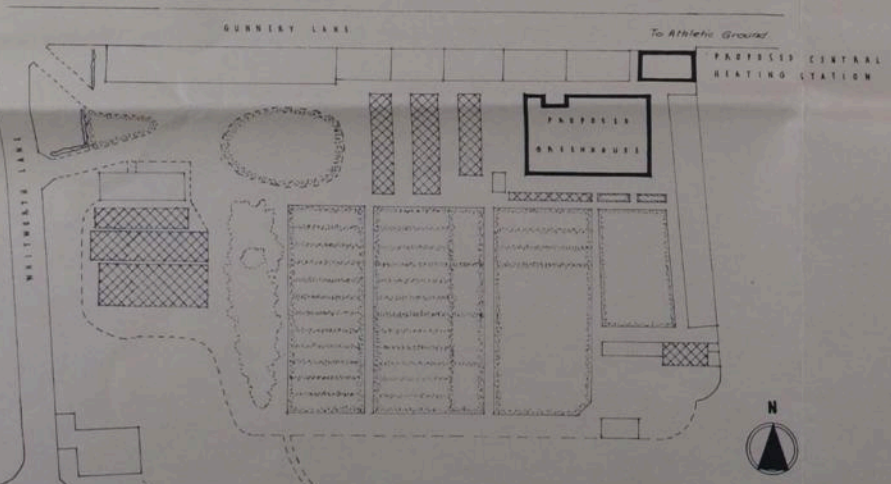
BLOCK PL

SCALE - 1:500

PLAN



LONGITUDINAL SECTION



UNIVERSITY OF MANCHESTER

BOTANY EXPERIMENTAL GROUNDS · FALLOWFIELD

PROPOSED NEW GREENHOUSE

DRAWN BY: D. S.
TRACED BY: D. S.
EXAMINED BY:
DATE: 4 · 2 · 66
SCALE: 1/4" : 1'
DRAWING No.: AX·21/4C

BUILDINGS SECTION,
BURSARS DEPARTMENT,
UNIVERSITY OF MANCHESTER,
OXFORD ROAD,
MANCHESTER 13. TEL. ARDwick 2333 Ext. 332