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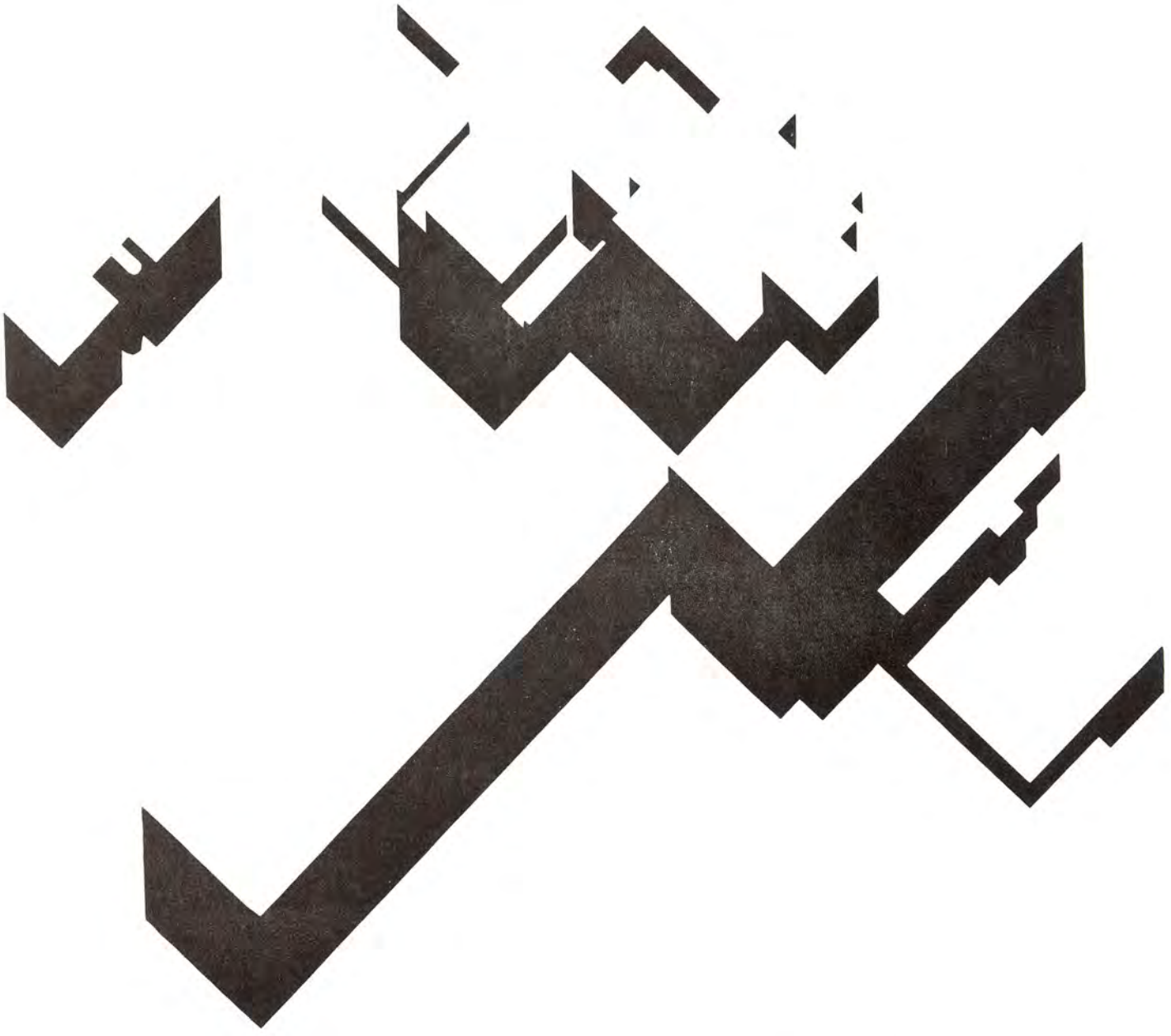
UNIVERSITY HOSPITAL AND CLINICS
Oklahoma City, Oklahoma

PRESENTATION TO THE SPECIAL COMMITTEE ON CAPITAL IMPROVEMENTS

Senator Lee Cate
Chairman

Representative Don Davis
Vice - Chairman

October 1977



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INTRODUCTION

The University Hospital and Clinics is a highly specialized and modern diagnostic and treatment center that holds a leadership role in Oklahoma's health care system. Its medical staff are all faculty members of the University of Oklahoma, many of whom are nationally and internationally known in their fields of specialty. University Hospital takes pride in its nursing and allied health care professional staff who are dedicated to serving the patient's total physical and emotional needs. In order to meet its multifold mission the hospital supports a full range of technologically advanced equipment and a system of management which strives to offer service in the most efficient and effective manner on a reasonable financial basis.

The University Hospital And Clinics
Presentation To The Special Committee
On Capital Improvements
October 12, 1977

CONTENTS

	PAGE
I. THE UNIVERSITY HOSPITAL AND CLINICS PRESENT PHYSICAL PLANT.	1
A. Inventory	1
B. Evaluation	3
C. Physical Impairments	4
II. THE UNIVERSITY HOSPITAL AND CLINICS FACILITY ASSESSMENT AND DEVELOPMENT PROJECT.	7
A. Direction To Undertake The Project	7
B. Participation	8
C. Facility Alternatives	8
III. THE FACILITY DEVELOPMENT PROJECT.	10
A. Project Description	10
B. Projected Operational Cost Savings	12
C. Recommendations of The Joint Interim Study Committee On Health Care	12
D. Currently Funded Projects	13

APPENDIX

The University Hospital And Clinics
Presentation To The Special Committee
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I. THE UNIVERSITY HOSPITAL AND CLINICS PRESENT PHYSICAL PLANT

A. INVENTORY

The University Hospital and Clinics provides very sophisticated medical care, education and research programs that provide great benefit to the people of the State of Oklahoma. The present physical plant is very disjointed and scattered and inadequate to meet current modern needs and will not be able to meet the medical challenges of the future. The Board of Trustees with legislative and gubernatorial support has operated the existing collection of buildings to support the many hospital services provided by the hospital even though many of the buildings are obsolete.

The University Hospital and Clinics contains approximately 600,000 gross square feet. This includes 290,000 gross square feet in the 1972 Everett Tower which is the "core" of the hospital.

The facility excluding the Everett building consists of approximately 310,000 gross square feet. The many different buildings have been constructed over the years to form a rambling inefficient structure. The age of portions of the physical plant is as follows:

42% is more than 25 years old;
21% is more than 30 years old;
17% is more than 35 years old;
15% is more than 55 years old.

The Facility Development Project applied the following codes and agency regulations to the existing University Hospital and Clinics facilities:

National Fire Prevention Association
(NFPA) Number 101 Life Safety Code

National Electric Code

Building Officials and Code Administrators International, Inc. (BOCA)

Southern Building Code

Hill-Burton Standards

Occupational Safety and Health Act

The UHC has deficiencies which relate to the age of the buildings, most of which predate the majority of modern codes. Many older hospitals are being required to meet current codes, although the hospitals were built in accordance with all the codes in existance at the time of their construction.

The probable cost to the UHC of meeting contemporary codes in its older buildings was studied, and is presented in Section III of this report.

The difference between the time when the older buildings were constructed and the present in relationship to codes is primarily related to the fact that the practice of medicine and medical education has changed tremendously over the years. A modern hospital in 1923 had approximately 70% beds and 30% ancillary and support services. Today's modern hospital, with its sophisticated diagnostic services, is approximately 30% beds and 70% ancillary and support services. The change between the modern Everett Tower and the older buildings is no less than dramatic. It represents the change in the practice of medicine during the past 60 years.

B. EVALUATION

UHC'S facilities impose severe handicaps to low cost and efficiency. The aged buildings at UHC are simply unable to meet the expectations and requirements of today's modern hospital.

There are several factors which must be considered in any evaluation of UHC'S facilities.

- Stop gap measures are expensive ;
- The high cost of replacement maintenance is not returned through improved operations. It has a running in place effect;
- Old facilities are unable to accomodate new systems and techniques; UHC cannot take advantage of future opportunities and developments carrying financial and service benefits;

- Old facilities generate inefficiency;
- They grow less effective and more expensive every year;
- They are unable to support the level of convenience expected by patients.

These factors relate to nearly every component of the older buildings and exercise a pervasive influence on operations. The ultimate result is a juggling trick with two increasingly disparate elements: old worn out facilities hindering new concepts and techniques.

Of course, adjustments can and have been made in the older buildings. Deficiencies can be corrected until they occur again. Extra money, personnel and equipment can be used to compensate for inefficient obsolete arrangements. But this is almost a conjurer's trick. It preserves appearances without attacking the real facilities' problems.

C. PHYSICAL IMPAIRMENTS

Deterioration of structure, materials and finishes, overtaxing of worn out mechanical and electrical systems all cause physical problems. Maintenance difficulties occur when systems are so old that parts are no longer available or new replacement parts cause the failure of weaker parts of the same system. The result is an unplanned program of temporary solutions demanding constant attention merely to keep the physical plant running.

UHC has benefitted only within the last few years from a strong continuous maintenance program. Buildings are clean, painted and generally well lighted. Despite the heroic efforts of maintenance and environmental services personnel, UHC'S older buildings are physically inadequate in the light of modern planning and service practices. Even buildings that appear to be strong and durable can include adverse environmental conditions. These affect the feeling of security and comfort of patients, staff and visitors, eroding confidence and morale.

Because of the overall age and resultant worn out conditions of older buildings, it is impractical for the environmental services staff to do preventive maintenance. Most of the work that begins as preventive maintenance ends up in total replacement. The Facilities Assessment Study indicates UHC has spent considerable dollars on renovation and remodeling since 1974. Similar costs could continue indefinitely or, more likely, increase.

However, mostly cosmetic changes have been made in these buildings to date. Major capital committments such as updating to today's level of health facilities' planning and remodeling lie in the future. This leaves the UHC relatively free to consider future alternatives without the influence of major recent investments in older facilities.

The primary reason that only stop-gap renovation has been accomplished is that major renovation would not resolve the older buildings' functional problems. The UHC Clinical Laboratory needs approximately 20,000 square feet to function efficiently. The older buildings are 40 feet wide with an 8 foot corridor down the middle. This would mean a clinical laboratory 40 feet wide and 500 feet long with a major corridor running through the laboratory. The current house staff quarters are 1200 feet and three level changes from the patient care areas. The kitchen is 900 feet away from the cafeteria. Some of the elevators in the old buildings cannot hold a patient bed. Finally, the UHC currently has 225 window air conditioners in use which is unacceptable by today's practices. This represents approximately 280 tons of air conditioning with a useful lifetime of less than seven years. These represent just a few of the older buildings' functional problems.

II. THE UNIVERSITY HOSPITAL AND CLINICS FACILITY ASSESSMENT AND DEVELOPMENT PROJECT.

A. DIRECTION TO UNDERTAKE THE PROJECT.

The University Hospital and Clinics has completed the Space Utilization Plan which was developed by Herman Smith and Associates in 1973 for the period 1973-1976. The Plan was reviewed and approved by all involved parties.

At a regularly scheduled board meeting, May 23, 1976, the Board of Trustees authorized another planning stage. Robert Douglass and Associates were chosen to complete a Facility and Services Assessment and Development Project. The project was completed in February, 1977. The team was charged to accurately determine whatever development may be needed, if any, over the next several years in order to accomplish the program and goals of The University Hospital and Clinics and those of the Governor and State Legislature.

The Joint Interim Study Committee on Health Care of the State Legislature subsequently directed that the UHC present to the committee its Program and Facilities Assessment and Development Study. This was to include, at the direction of the committee, a three year capital expenditure plan required by federal law and a longer range more comprehensive plan for the capital needs of The University Hospital and Clinics.

In addition, Governor David L. Boren directed the UHC, through the State Budge Office, to prepare a five-year capital expenditures plan.

B. PARTICIPATION IN THE PROJECT.

The actual Facilities and Services Assessment and Development Project involved the Board, The Governor's Office, Committees of the State Legislature, the State Budget Office, the Legislative Council, The State Health Planning Commission, the University of Oklahoma and the O.U. Health Sciences Center, Presbyterian Hospital, other Oklahoma Health Center institutions, the UHC medical staff, UHC employees and administration, UHC patients and many others.

C. FACILITY ALTERNATIVES.

The assessment portion of the Facility Assessment and Development project authorized by the Board of Trustees on May 23, 1976 established four (4) basic facility alternatives and two parking alternatives. They were expressed as follows:

F-1. Do Nothing.

F-2. Continue Maintenance on Old Buildings.

F-3. Renovate and Maintain Old Buildings.

F-4. Add to Everett Tower UHC Core-Transfer Functions from Old Buildings to New Floors on Everett Tower.

WP-1. Continue to Buy Parking from the University of Oklahoma.

WP-2. Construct "B" Lot Warehouse/Parking Structure, Discontinue or Limit Purchase Parking.

Facility alternative one and parking alternative one were considered and rejected due to the continuing deterioration in the physical plant of the UHC and the severe parking problem the UHC and O.U. faced.

Alternative number two was considered and rejected because the maintenance cost on the old structures without improving the efficiency and effectiveness of the operation was not worthwhile.

Alternative number three was considered and is not thought as desirable in the short run or the long run as the remaining alternative and does not as fully address the original problems of the old physical plant.

Alternative number four was considered and fully detailed to determine the degree of effectiveness it represents over the previous alternatives. Studies to date, undertaken with the full knowledge and consent of the Governor's Office, the Legislative leadership and the Joint Interim Study Committee on Health Care indicate strongly that substantial operational savings can be achieved with facility alternative four and parking alternative two over the other plans. This alternative represents a small reduction in gross square feet to accomplish the same programs, accomodate anticipated growth, and provide for efficiency of operation.

III. THE UNIVERSITY HOSPITAL AND CLINICS FACILITY DEVELOPMENT PROJECT.

A. FACILITY DEVELOPMENT PROJECT DESCRIPTION.

Facility Development Alternative Four involves the transfer of functions from outdated structures to replacement floors on the core Everett Tower (1972), and the addition of replacement and expansion space for warehouse and ambulatory care functions as well as a new 900 car parking facility. The four major program packages are:

A. Warehouse/Parking and Patient Care Support
B. Ambulatory Care Center
C. Inpatient Care Areas
D. Patient and Public Service Areas

The implementation program for alternative four relates specific project activities to calendar dates, the funding cycle and timing requirements for contract services. The project is phased to relocate activities with minimal disruption to patient care. The total costs are projected for the six year period July 1, 1978 to June 30, 1985 to be:

Construction Costs	$25,820,968
Professional Fees	2,451,088
Equipment Costs	3,191,355
Administration	550,820
	$32,014,231**

** Costs assumes project beginning date of July 1, 1978 and complete June 30, 1985. July 1, 1980 construction date would increase the project costs to approximately $40,000,000.

This approach offers the following benefits:

1. Functional consolidation of space, activities and resources;
2. Functional redistribution of space for more appropriate program balance;
3. Convenient, adequate parking for staff and patients;
4. Reduction of maintenance costs;
5. Reduction of energy costs;
6. Everett Building labor-saving systems will operate more cost effectively;
7. Reduced costs through functional groupings of departments and facilities for cooperative use of personnel, equipment and space;
8. All buildings will conform to good security and safety standards;
9. Re-establish UHC's ability to grow and respond to future opportunities;
10. Major image improvement through improved facilities, accessibility and security.

Alternative four would directly support the principles of convenience, consolidation, take advantage of investments already made, functional flexibility for growth and development, and an improved UHC image.

B. PROJECTED OPERATIONAL COST SAVINGS.

The following survey of costs and projected savings attributable to the development project and management improvements was conducted cooperatively by the UHC administration and Robert Douglass personnel. The resulting operational cost savings and revenue enhancement are projected by FY1984 to equal $3,188,100 annually if the proposed development program is implemented on the schedule set forth in the previous section. The basic premise is that the UHC would cost $3,188,100 more to operate in FY1984 as it is constructed today as opposed to the cost of operation of the new physical plant structures described in the Facility Development Plan. (See page 11.20 of Facilities Assessment Study for details).

C. REVIEW BY THE JOINT INTERIM STUDY COMMITTEE ON HEALTH CARE.

Upon completion of the University Hospital and Clinics Facility Assessment and Development Project and its acceptance and approval by the Board of Trustees, the project was presented in its entirity to the Joint Interim Study Committee on Health Care.

The Committee very carefully reviewed the presentation during the October 12, 1976 meeting and at this meeting it was related that the major finding of the review of alternative number three and alternative number four is that the cost of renovating the old structures is only slightly less expensive than replacing the old structures with new construction on the Everett Building. The estimated cost of renovating the structure is $26 million while $29.7 million was projected for construction of new facilities. (Higher cost figures in this report are the result of two years of inflation). It was also noted that in the last two and one-half years the UHC has spent $4.6 million in stop-gap operational improvements.

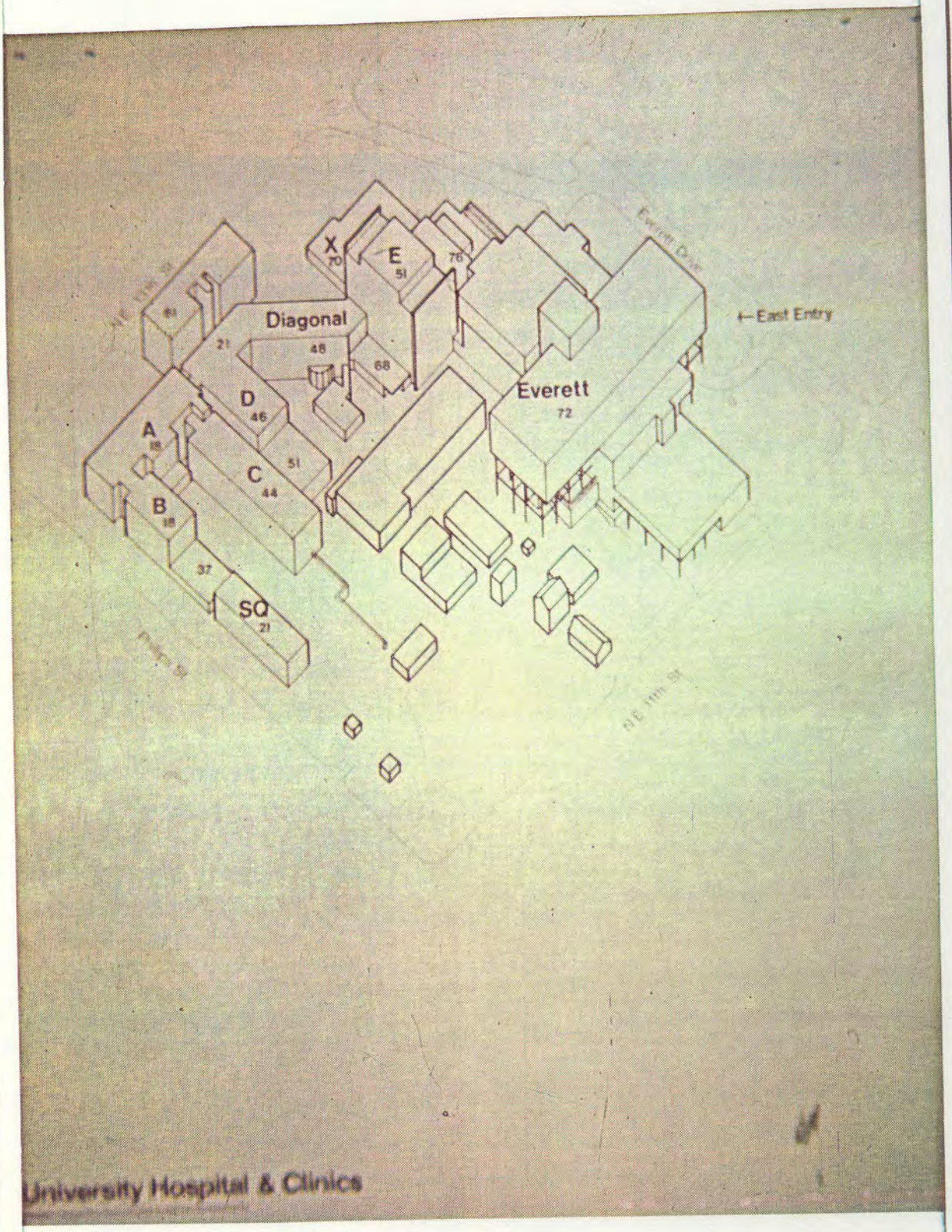
The Committee recommended that the UHC Facility Development Project be included in any capital expenditure program whether it be by appropriated general revenue dollars, hospital revenue bond funds or by state general obligation bond funds.

D. FACILITY DEVELOPMENT PROJECTS CURRENTLY FUNDED.

The Facility Development Plan, when presented to the Board of Trustees, included a replacement clinical laboratory in phase I and a replacement trauma center in phase II.

In Legislation passed by the First Session of the Thirty-Sixth Oklahoma Legislature and signed by the Governor $2,800,000 was appropriated for the construction of these two projects. These two projects will greatly enhance the effectiveness and efficiency of the UHC operation.

The plans and associated dollars of the rest of the Facility Development Project have been adjusted for these two important projects.



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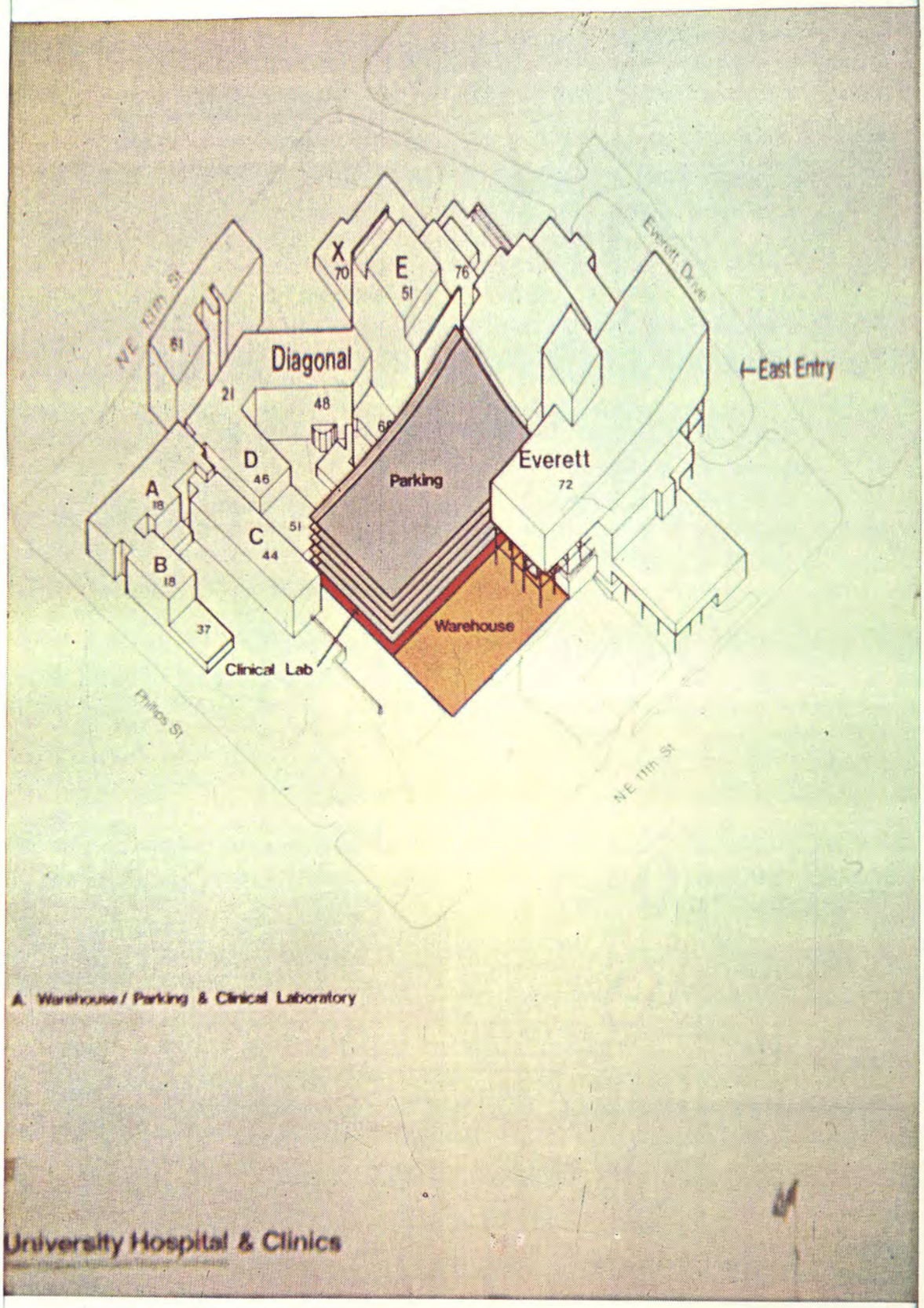

A. Warehouse / Parking & Clinical Laboratory

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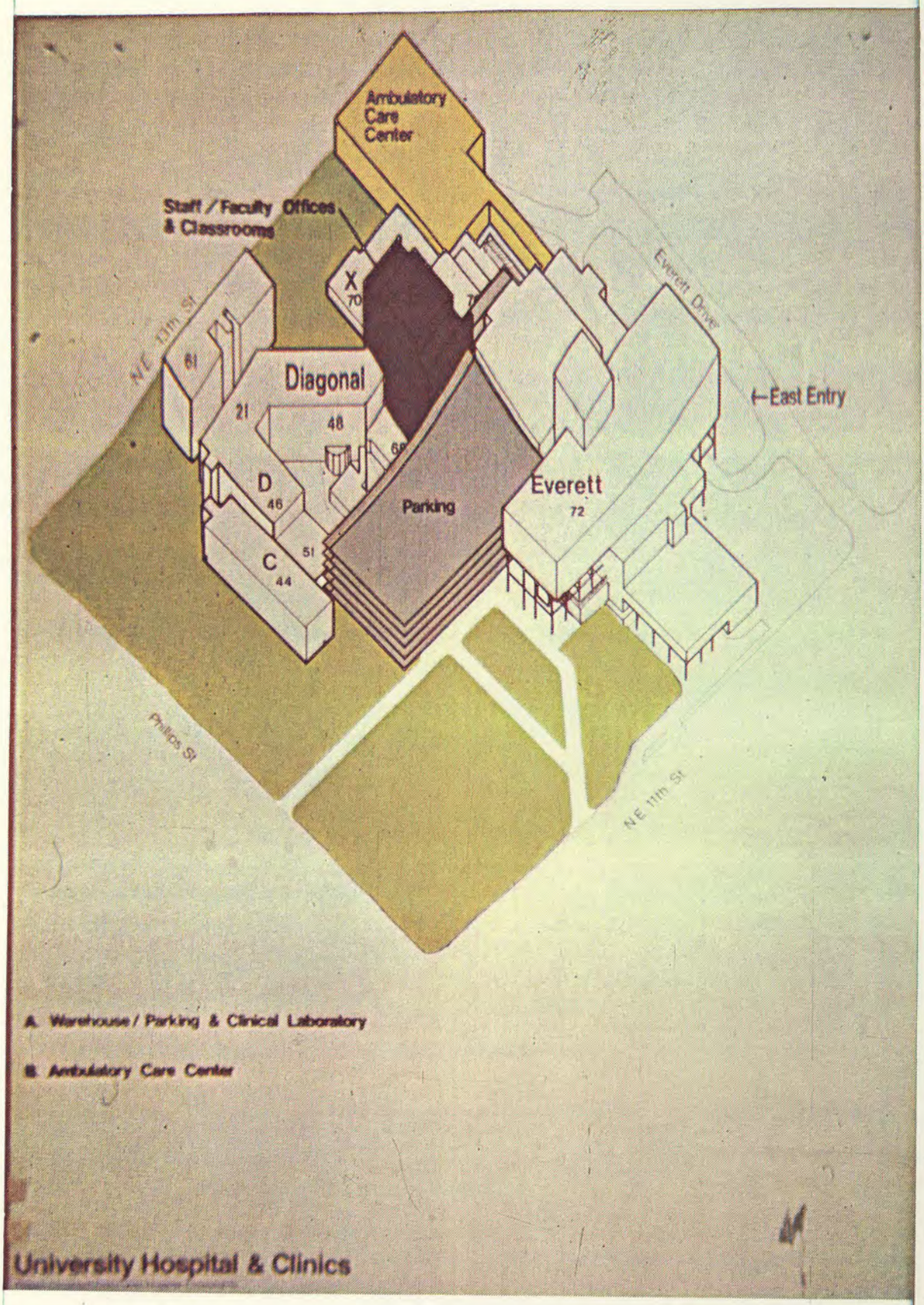

A. Warehouse / Parking & Clinical Laboratory

B. Ambulatory Care Center

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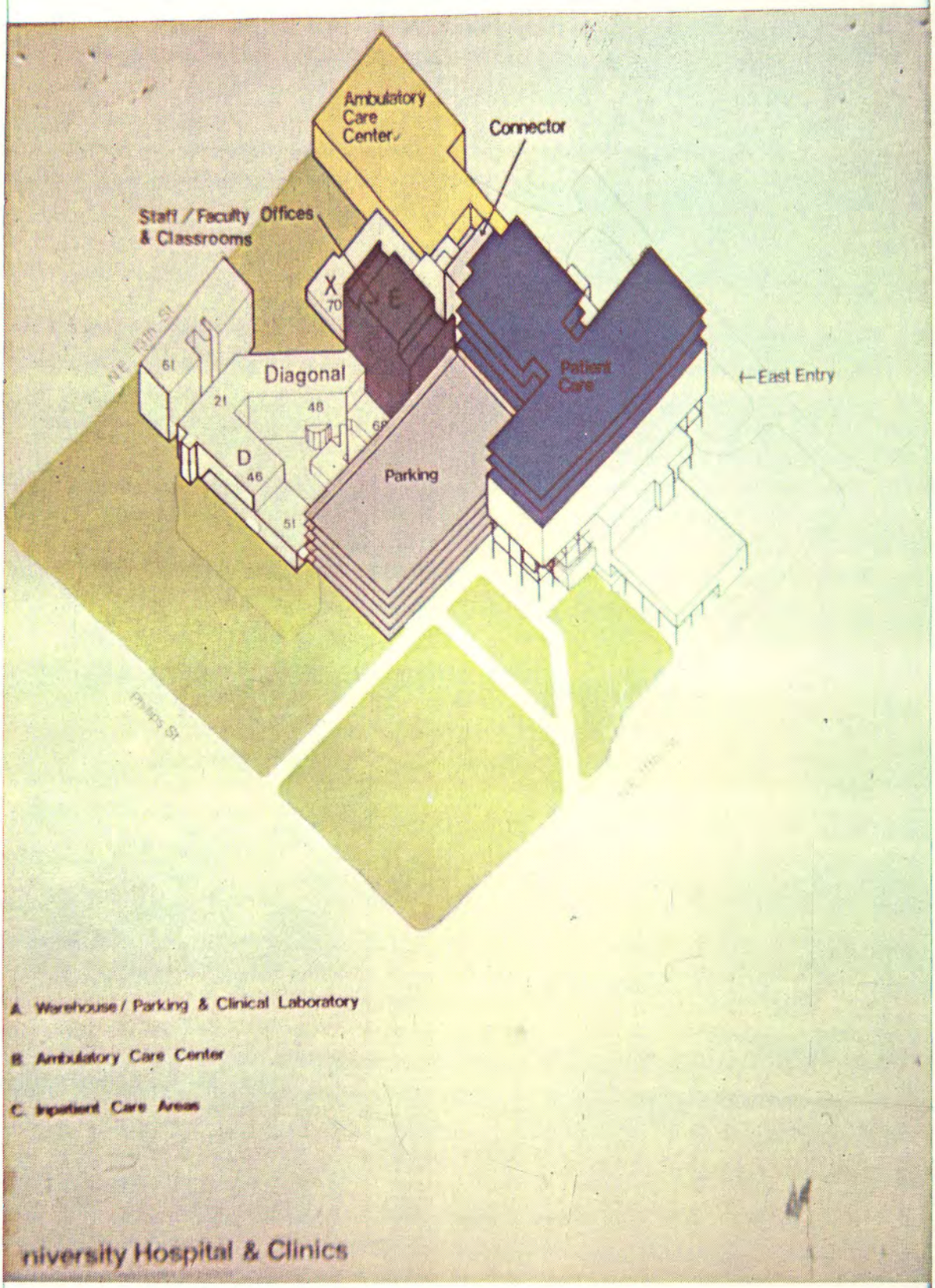

A. Warehouse / Parking & Clinical Laboratory

B. Ambulatory Care Center

C. Inpatient Care Areas

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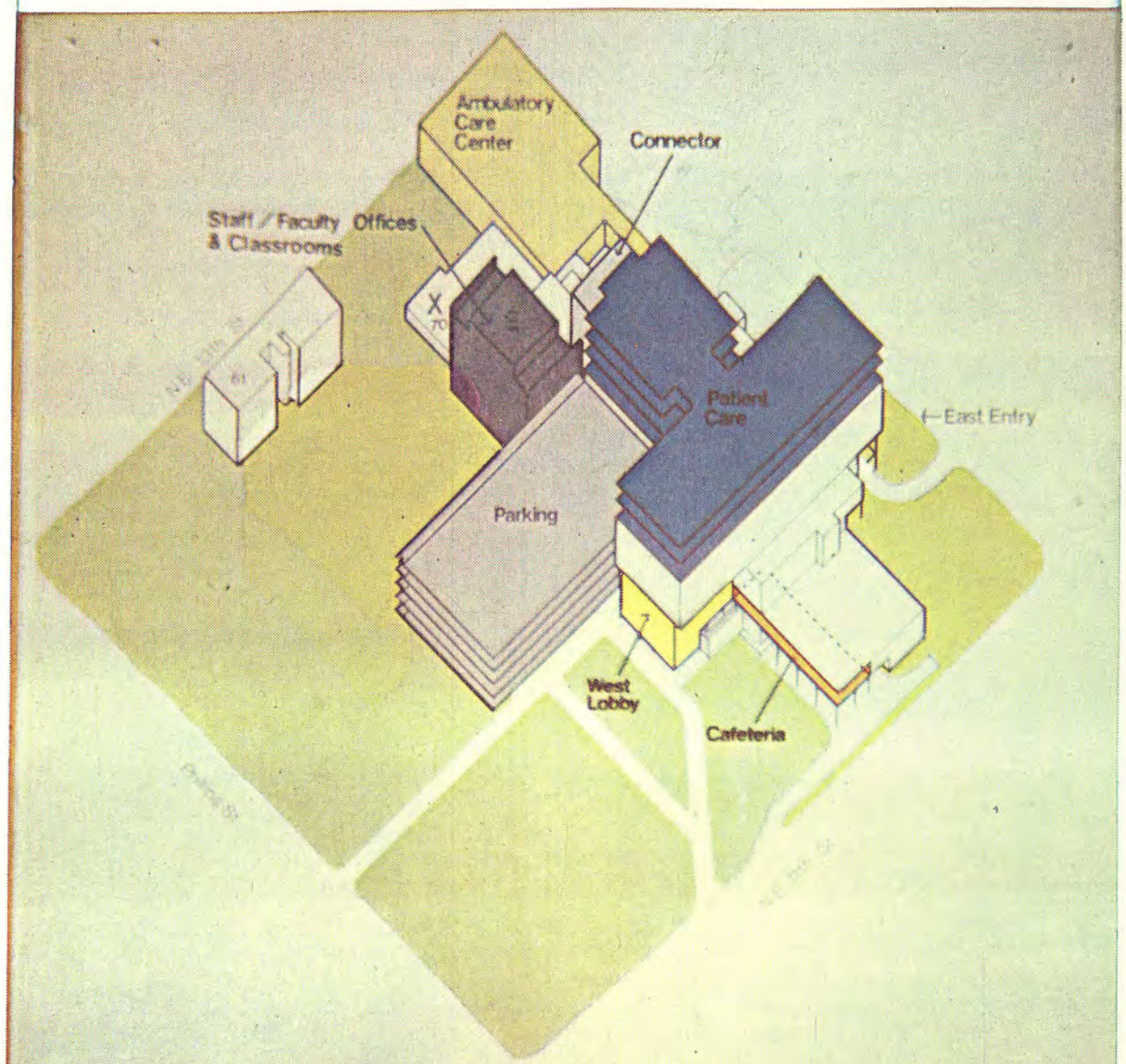

A. Warehouse / Parking & Clinical Laboratory

B. Ambulatory Care Center

C. Inpatient Care Areas

D. Patient & Public Service Areas

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