

UNIVERSITY OF ROCHESTER
SCHOOL OF MEDICINE AND DENTISTRY
AND
STRONG MEMORIAL HOSPITAL

Preliminary Schematic Plans
for
Expansion and Modernization

Presented July 11, 1962

Wood & Tower

Cos Cob, Connecticut

Princeton, New Jersey

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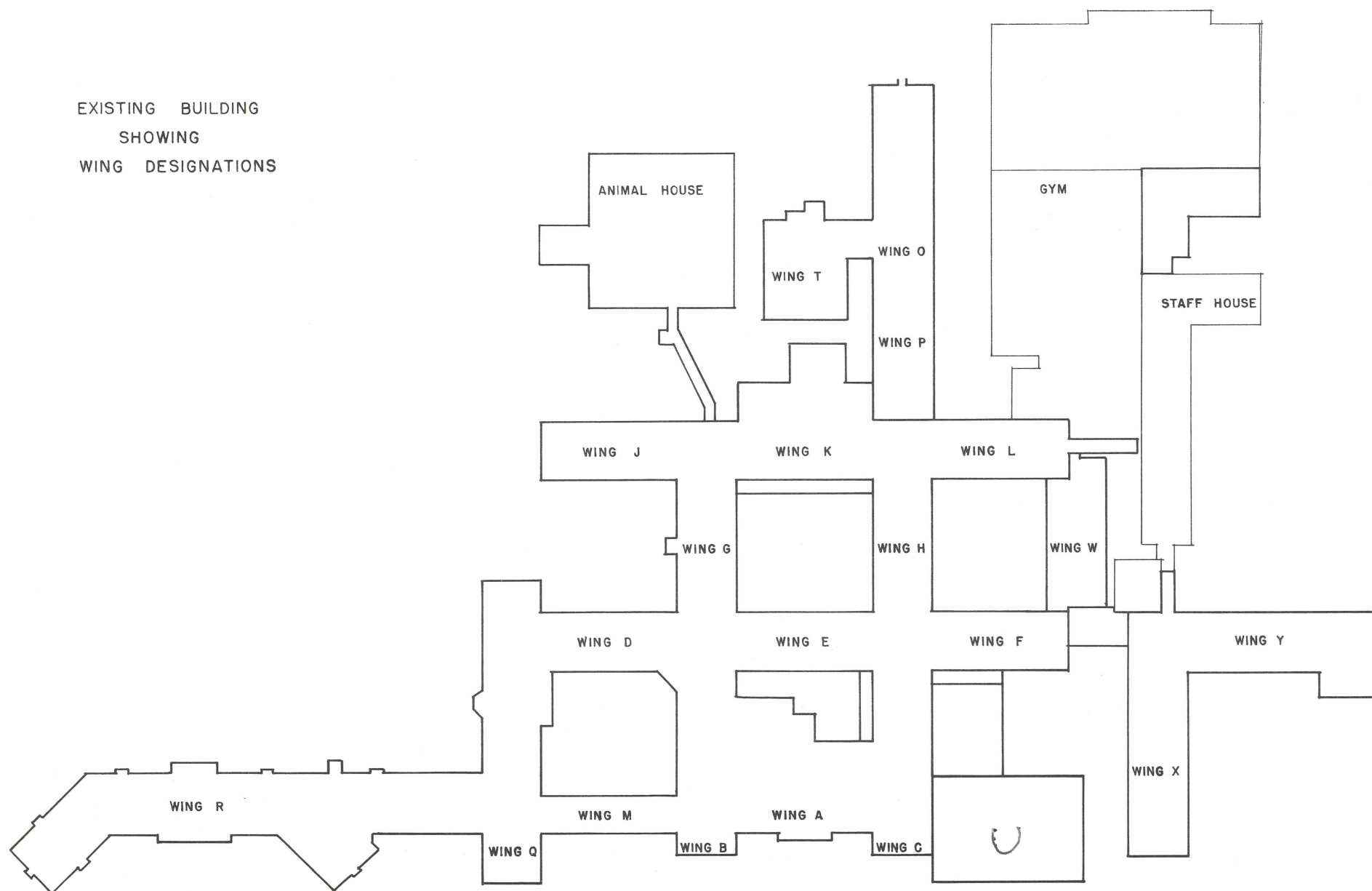
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EXISTING BUILDING
SHOWING
WING DESIGNATIONS



These are very preliminary and schematic drawings. They are primarily for getting general reactions to a proposed way of solving the long range problems of the center. The purpose of presenting these sketches is to get criticism and suggestions. The wrong emphasis may have been placed on what is important and what is unimportant. The relationship between various functions or departments may be incorrect. Variations of this scheme may be suggested which will vastly improve it - or perhaps the entire approach may need revamping. At any rate there will never be a time when it will cost less or be less painful to correct or improve upon these ideas than right now. These sketches do not represent a fait accompli - no one is married to this plan - we are merely examining her dowry.

At the outset we started with a combination of long range and short range problems. Interviews have developed other needs which may be good or valid for varying periods of time. The schematic sketches provide space generally far in excess of the individual needs as defined. This is the only way to develop good long range plans - none of us see very clearly more than five years ahead - hence we must find ways of getting more space in the future even if we do not know what we will use it for. These plans are not tailored to the exact needs of the departments. This really cannot be done intelligently until a broad plan in principle has been accepted. Individual department needs will vary considerably depending on the way the broader plan is put together. If this plan with such modifications as may be suggested looks acceptable we can then proceed to a development of it in sharper focus in terms of immediate and intermediate periods of time - with a schedule for phasing - with estimates of cost of each part and each phase and for the total.

In many of the areas of space need, the quantitative element is still unknown and in others policy decisions remain to be made. Some of these are:

- A. Teaching space - depends on further development of the curricula by the Committee of Six.
- B. Minimal care beds - how many are wanted and what type of minimal care facility is desired.
- C. The number of hospital beds wanted at various time phases.
- D. Graduate nurses residence - size and type.
- E. Doctors Apartments - for whom - how many - what type.
- F. Doctors Offices - the number - the type - questions of group practice.
- G. Housing for Medical Students - the number - type of housing.

In the proposed plan the answers to some of these questions have been assumed - even if they are wrong assumptions it has given a basis for this preliminary presentation.

Broad Objectives of this Plan

- A. To maintain the close physical proximity of the patient areas - the staff areas - the teaching areas and the research areas - to keep all the advantages of the present compact plan which works well and yet now expand these areas of use.
- B. To provide a plan for future expansion which will continue to maintain this very great advantage of compactness.
- C. To make intelligent and economic use of land the value of which is great because of its proximity to the existing facilities.
- D. To provide for a quick and permanent solution to the immediate problems such as the Operating Rooms, Animal Facilities, the Clinic, the Food Service.
- E. To make the best use of existing structures.
- F. To provide good functional inter-relationships between departments.

In addition here are some more specific aims which this plan achieves:

- 1. Provides teaching space on each floor close to staff offices in order to minimize teaching areas ^{used} by only one department with the resultant uneconomic utilization of space.
- 2. Provides patient bed area additions in an arrangement which hopefully will serve more patients per nursing station; less walking by nurses for non-nursing purposes; better control of patients and visitors; a better method of supplying clean material and removing soiled material; less criss-crossing of clean and soiled material hence less opportunity for contamination; better clinical services.
- 3. Provides research space convenient to all departments.
- 4. Provides animal space convenient to all departments.
- 5. Provides for the easy installation of new mechanical services to both new and old areas - especially air conditioning.
- 6. Provides good circulation and logistics of both people and material.
- 7. Provides economy in initial investment and low operating costs which should make it easier to sell to trustees and to donors.

- ADDITIONS
- EXISTING
- FUTURE ADDITIONS
- OTHER NEW BUILDINGS

FUTURE
EXPANSION
OF STAFF
HOUSE

PARKING
450 CARS

B-5

B-G

B-G-1

B-G

B-G-1

B-G-5

B-5

FUTURE
EXPANSION

PARKING
450 CARS

DOCTORS'
OFFICES
144 SUITES

HOUSING
200 STUDENTS

PARKING
450 CARS

APTS.
200
DRS.

APTS.
400
NURSES

GRADUATE
LIVING
CENTER

MEDICAL CENTER
A PLOT PLAN
SHOWING POSSIBLE FUTURE EXPANSION

The Plot Plan

This shows a suggested arrangement of the entire medical center. The existing buildings are in the dark shading. The proposed additions to these buildings are in the lighter shading. A further future expansion of the existing buildings is shown in a very light shading. Completely new buildings are shown with a black outline and white background.

The proposed new buildings (other than additions to existing buildings) would include a doctors office building with 144 suites; an apartment for residents, interns or other staff members to house 200 families; an apartment to house 400 nurses; a dormitory to house 200 students and three three-story parking garages each to house 450 cars. The other new buildings would be twelve-story plus basement.

The general nature of the additions would be as follows:

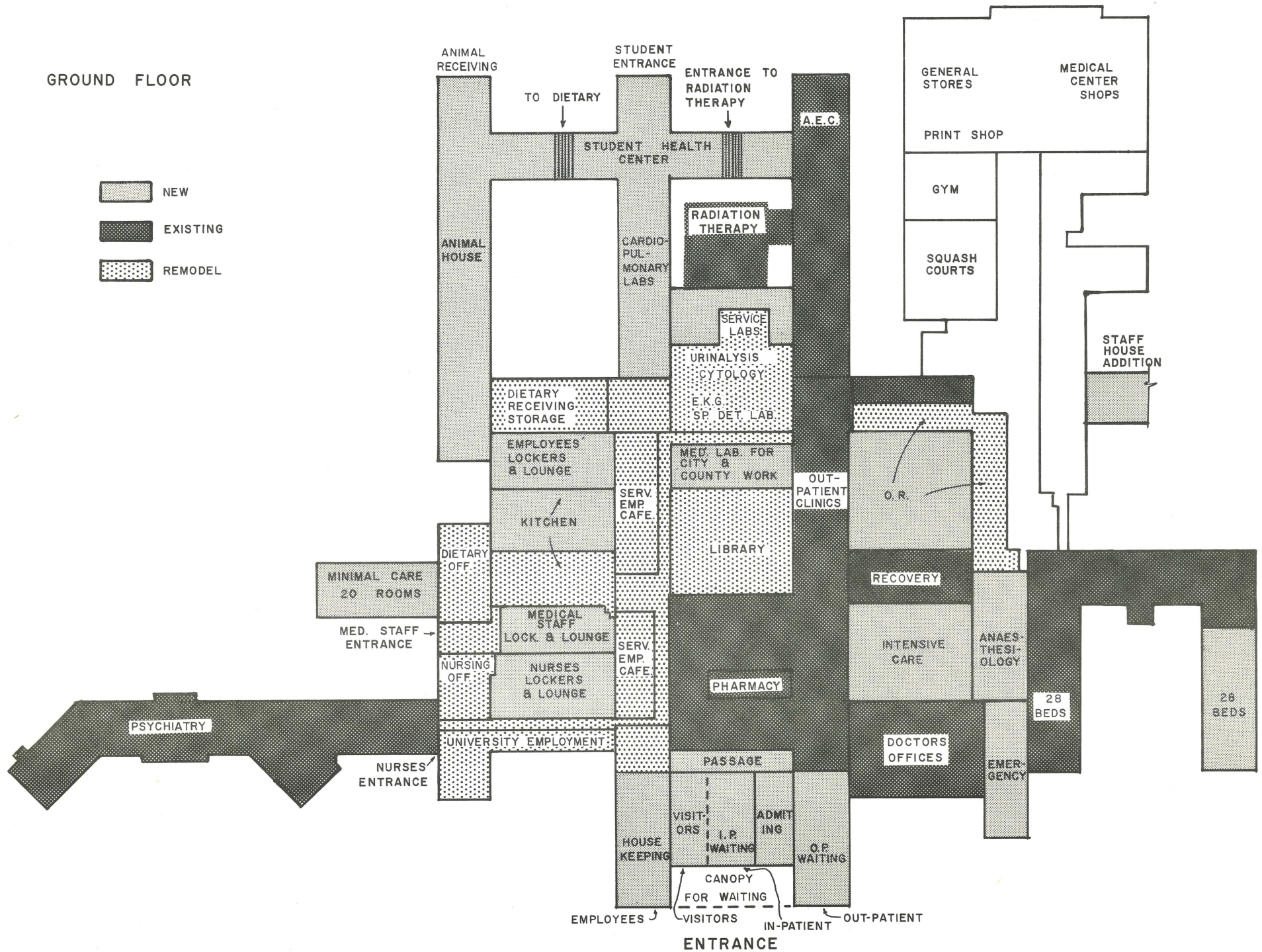
1. All the present court areas would be filled in to varying heights.
2. The main courts -- those to the south of Wings J, K and L -- would be filled in solidly for the Basement, Ground and First Floors.
3. The rear half of these three courts and the half immediately adjoining Wings J, K and L would extend up five floors or to the same height as the existing buildings. It might be found desirable to provide foundations and columns to make possible extending these halves up another five floors in the future.
4. The present ambulance court would be filled -- Ground and part of the First Floor.
5. The court south of Wing D would be filled -- Basement, Ground and First Floor.
6. There would be an extension on the front of the building in front of the present entrance which would consist of a Basement, Ground and First Floor.
7. Two new wings would extend to the north, parallel and similar in length and height to Wings O and P. These would have cross connecting wings to Wing O near their northern ends.
8. A Basement through Five Story wing would be added at right angles to the Q Wing and an extension of D Wing.
9. A similar wing would be added to Municipal Hospital.

10. An additional wing could be added to the Staff House.
11. The wings indicated in 7, 8 and 9 above might also be constructed so that in the future another five floors might be added.

The suggested use of these spaces is shown in subsequent charts.

GROUND FLOOR

- NEW
- EXISTING
- REMODEL



The Ground Floor

This plan shows how solidly the entire area would be filled at this level. These solid floor areas without windows are only possible because they can be air-conditioned. The advantages of the solid areas are numerous. They permit much greater flexibility in layout than is possible when the areas are confined within 2 parallel walls 45 to 50 feet apart. It makes possible the maximum use of space at the ground floor level and it is this space which requires the minimum in the way of vertical transportation to serve it. Large floor areas have become not only almost universal in use in factories, warehouses and stores, but are becoming increasingly popular in the design of hospitals and laboratories -- especially at the lower levels.

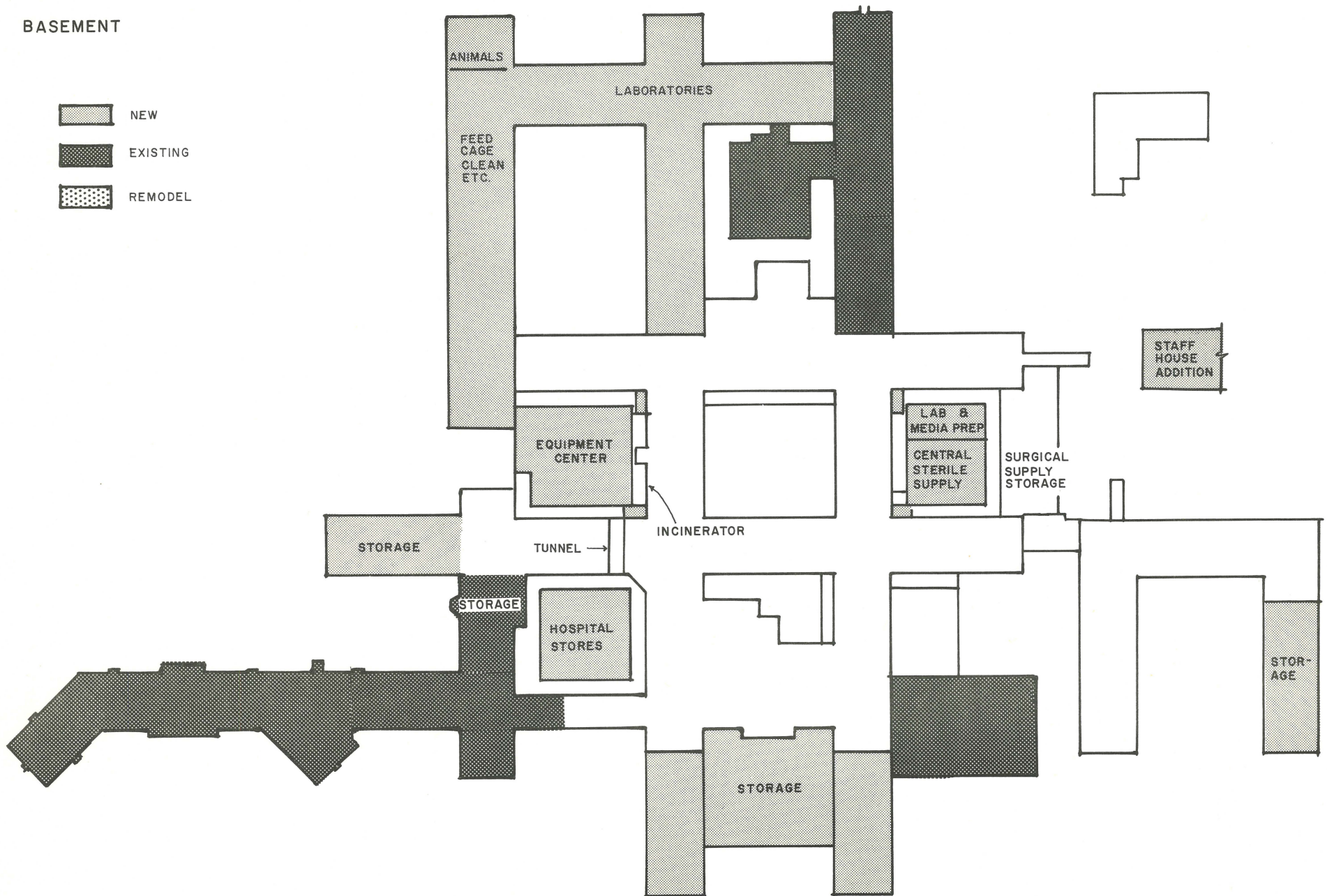
The major features of the Ground Floor Plan are:

1. The Operating Suite including the Recovery Room, an Intensive Care unit with the Department of Anaesthesiology adjoining -- this would be planned on a basis whereby entrance to the sterile area would only be possible to those who were properly clothed and eligible.
2. Emergency -- the new Emergency Entrance would be under a canopy where full protection from the weather could be provided. If it could be arranged, it is considered to be more desirable if the Emergency Department could occupy the Ground Floor of Wing X instead of as shown. The nearness of Emergency to the Operating Room, to Intensive Care and Anaesthesiology has advantages.
3. Addition to Municipal Hospital -- this wing of five stories plus Ground and Basement would provide additional beds.
4. New Entrance -- this would provide for centralized admitting; would eliminate the flight of steep steps for visitors and in patients; would provide weather protection for those waiting for cars or buses.
5. Out Patient Clinics -- additional space is provided.
6. Dietary Expansion -- kitchen would be doubled in size as would the Service Employees Cafeteria. Better and enlarged facilities would be provided for dietary employees, lockers and lounge, for receiving and storage.
7. Nurses Lockers and Lounge -- centralized and expanded near nurses entrance -- nursing office moved close by.
8. Medical Staff Lockers and Lounge -- centralized and expanded with separate entrance for staff.

9. Minimal Care Wing -- of 5 stories plus ground and basement adjoining Wing Q.
10. Centralization of Clinical Laboratories -- this would include all service laboratories such as Cytology, Hematology, EKG, Urinalysis, Special Determinations Laboratory and the Medical Laboratory for City and County work.
11. Animal House -- this would be in the wing running at right angles to Wing J and to the north -- it would be basement, ground and five floors. This could be done as these plans show by having all the basement, ground and first floor for animals with all the upper floors for research, or it could be done by having approximately half the building on each floor for animals and half for research. This could provide animal space on each floor of the building near the end of Wing J -- convenient to every science or clinical department.
12. Student Health Center -- the northern end of the new teaching wing (extension of Wing G) would make an excellent location for this center because it is the closest point to the river campus. It is convenient to the Clinical Laboratories. It is an entity by itself with good access to the Medical Center but isolated from it. At this same point would be the medical students entrance with a stair to the First Floor where their lockers and lounge would be located.
13. Dispersion of Entrances -- the traffic into the building would be more effectively handled with the separated entrances for Emergency, Out Patients, In Patients, Visitors, Employees, Nurses, Medical Staff and Students. The parking facilities would be similarly dispersed.

BASEMENT

- NEW
- EXISTING
- REMODEL



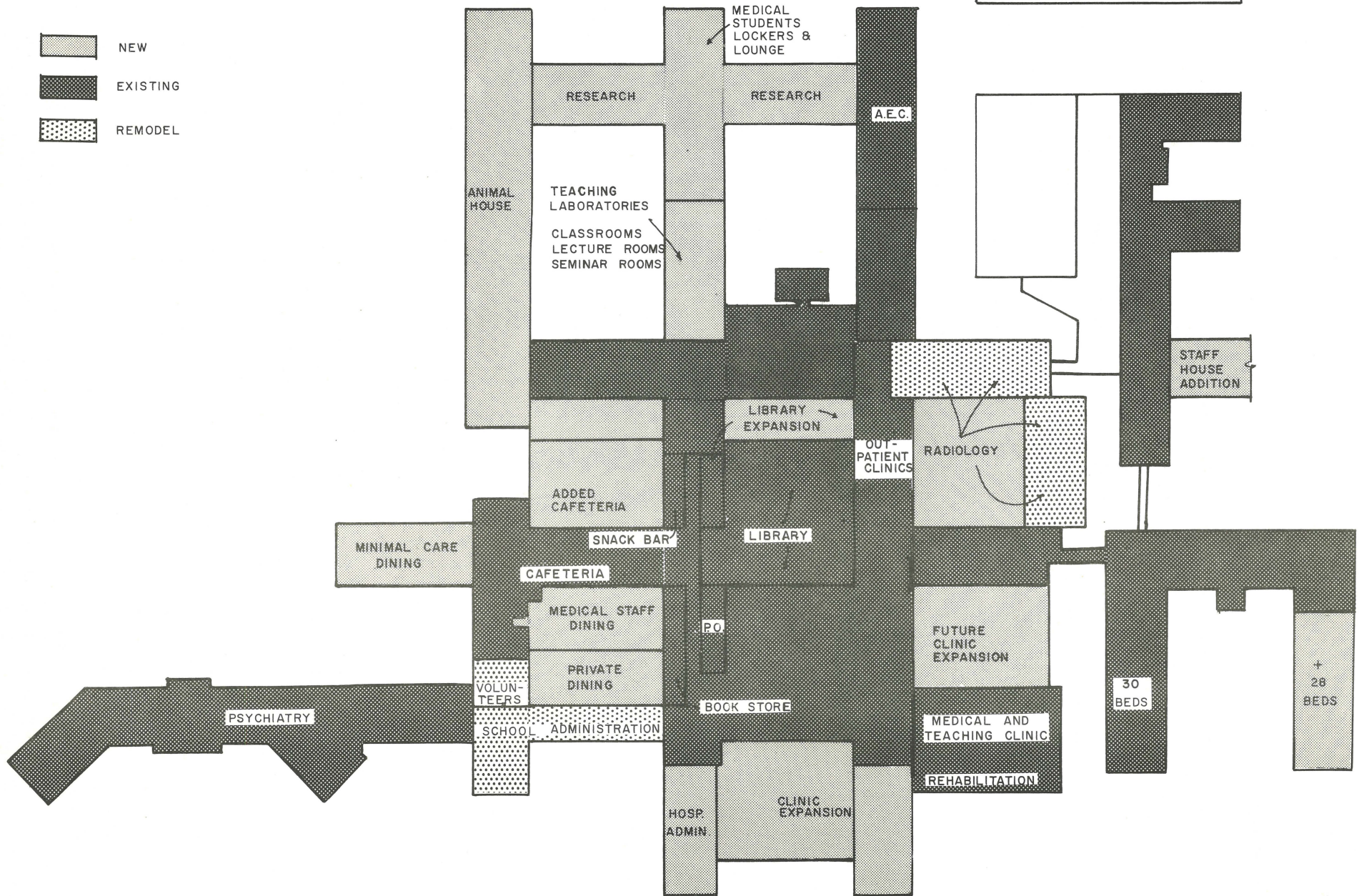
The Basement

The major features of the Basement are:

1. The Animal House -- the basement would be used for food storage, cage cleaning, etc. To what extent it might be used for animals would depend on which of the alternate plans for using this wing were elected -- (see Ground Floor - Animal House - Item 11).
2. Hospital Stores -- it is believed that the present stores are too remote -- the proposed location would make these stores immediately accessible to patient floors using a tunnel under Wing D and the new Service and Supply Elevators in the east court fill in.
3. Equipment Center -- the proposed location makes equipment immediately available to all patient floors by use of the new Service Elevators. The space provided would make it possible to operate a first class center and keep equipment properly maintained.
4. Central Sterile Supply -- this adequate area with Surgical Supply Storage adjoining is immediately under the Operating and Emergency areas and accessible to both. If space permits, Laboratory and Media Preparation could be adjacent.
5. Adequate Storage -- in each new structure a basement would be built to provide additional storage space now so desperately needed throughout the center. The area under the new front entrance might be needed partially for additional employee lockers -- part of that area might be useful for added medical records located above.
6. Chilled Water Loop -- it is thought that through this basement area we might circulate chilled water through a series of looped pipes for air conditioning the areas above. Such a system would lend itself to the use of a central refrigerating plant perhaps adjoining the present boiler house. This would eliminate the need for housing a great deal of equipment within the center itself.
7. The Incinerator -- a new incinerator is provided to take care of the waste from all floors and the kitchen. Its location is at the base of a waste chute which would have openings at every floor. This chute would be built as a part of the vertical core which will house the new service elevators.

FIRST FLOOR

- NEW
- EXISTING
- REMODEL

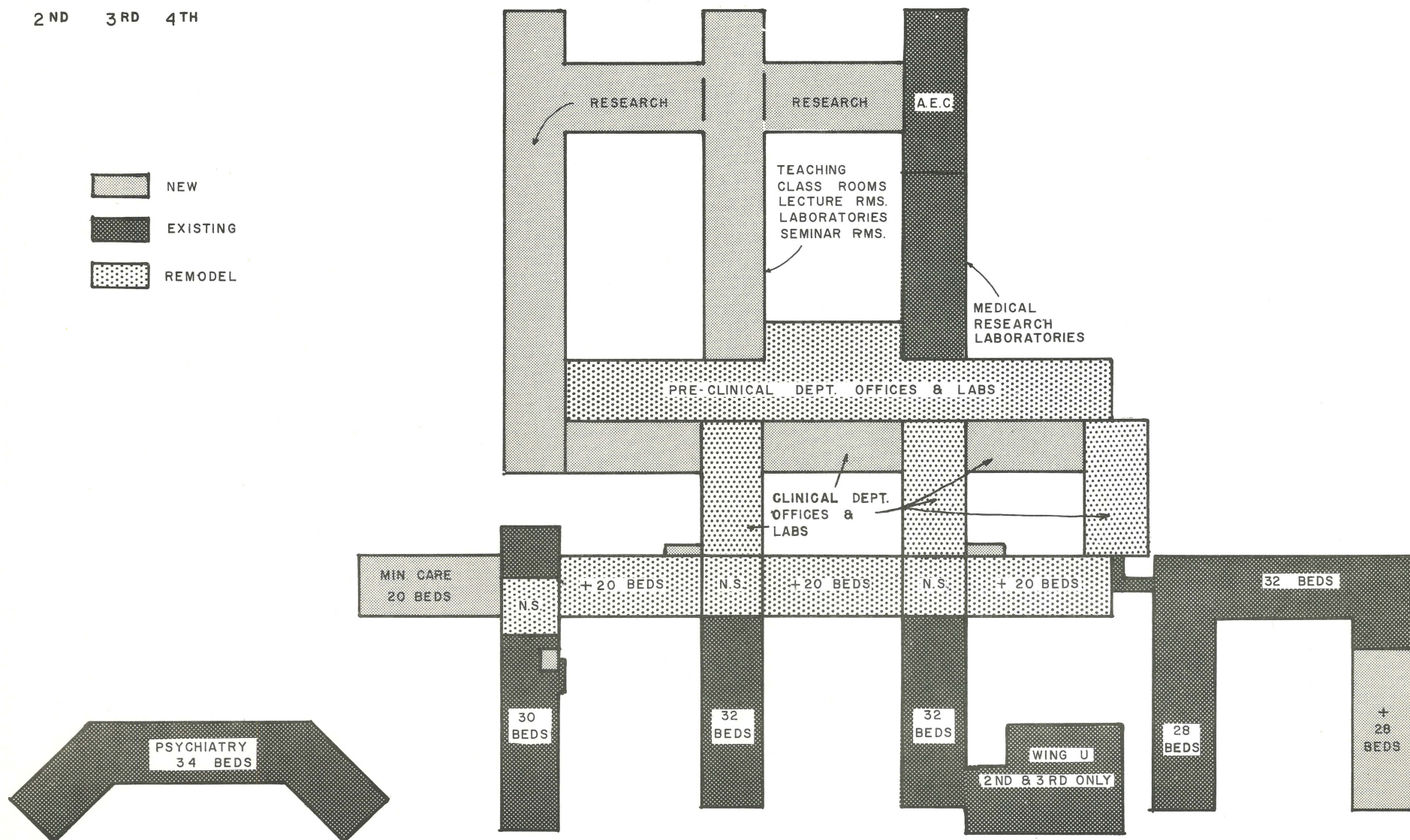


First Floor

The major features of the First Floor are:

1. Expanded Dining Facilities -- the cafeteria would be doubled in size. A medical staff dining room would be provided (above staff lockers and lounge). This room would have a number of small separable dining rooms for lunch meetings. A private dining room would be provided if deemed necessary. The dining room for the Minimal Care wing would be on this floor.
2. Administration -- provision for expansion of both hospital and school administration.
3. Clinic Expansion -- a substantial area is provided for the future expansion of the clinics.
4. Library -- some expansion is provided -- more could be located in the upper floors of the 5 story court fill in adjoining Wing ~~E~~.K
5. Book Store -- this is given adequate space in a central location convenient to both the library, cafeteria and snack bar.
6. Radiology -- a large expanded department is provided. This would be served by 2 new patient elevators which would also serve the Operating Room. It is believed the area is adequate to provide proper bed waiting areas.
7. Animal House -- this might be entirely for animals or half for animals and half for research (see Ground Floor -- Animal House -- Item 11).
8. Medical Students Lockers and Lounge -- would be provided adequately and conveniently at this level on the end of the new teaching wing. Access would be by stair from the Student Entrance in the Ground Floor.
9. Teaching Wing -- at this level is shown for the first time the primary use of this wing which is for teaching purposes -- for teaching laboratories, classrooms, lecture rooms, seminar rooms. This is its entire use on all the upper floors.
10. Research Space -- this is shown in the 2 wings connecting Wing O with the new teaching wing and the animal and research wing. It is suggested that the presently proposed addition to Wing O be the connecting wing to the new teaching wing.

TYPICAL FLOOR
2ND 3RD 4TH



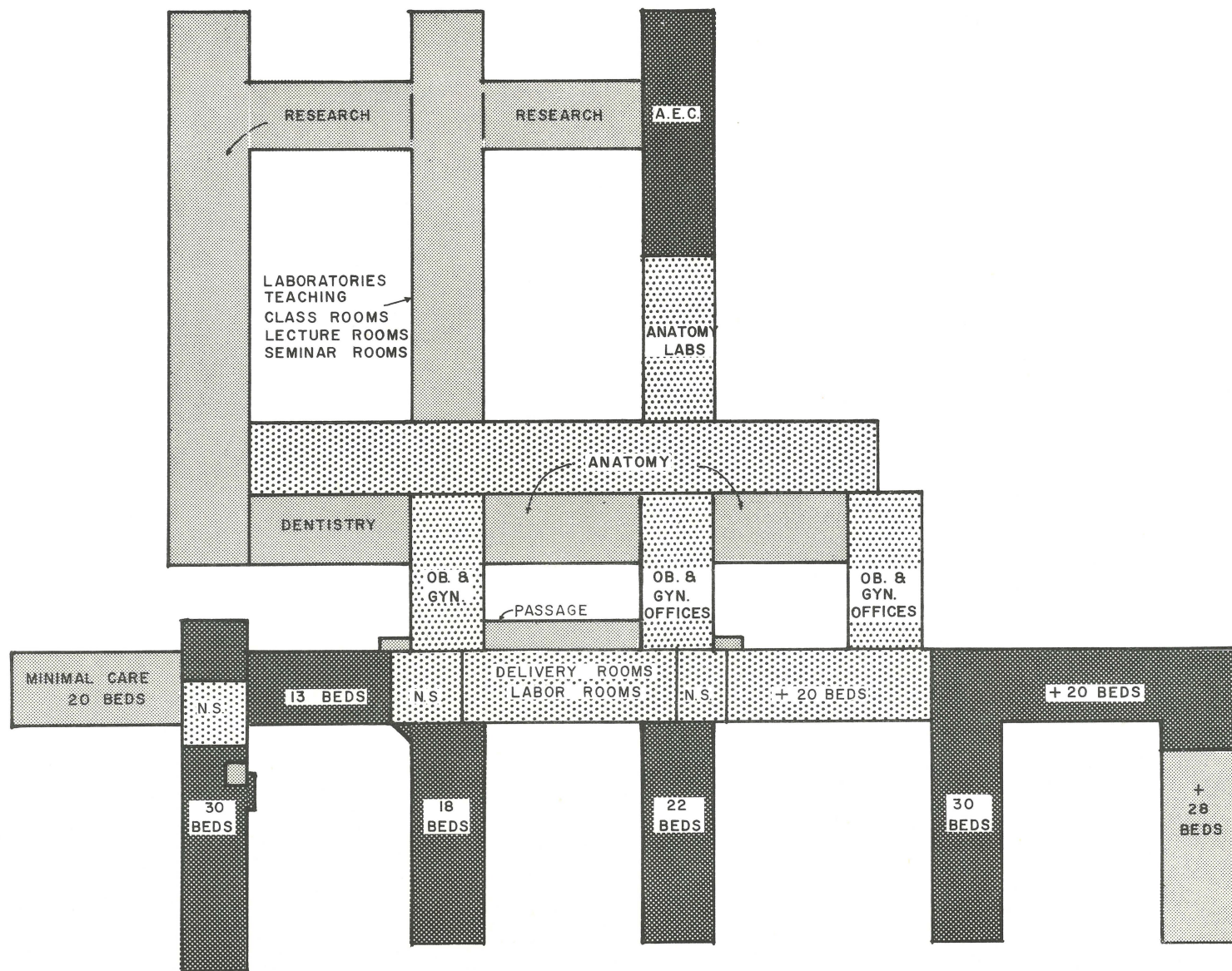
Typical Floor - 2nd - 3rd - 4th

This plan is the best illustration of the basic principle around which this entire concept is organized.

1. Patient Beds -- the expansion in patient beds is provided by:
 - a. Converting Wings D, E and F to bed use
 - b. Adding a wing to Municipal
 - c. Adding the Minimal Care Wing to Wing Q
2. Clinical Department Offices and Laboratories -- these are provided in Wings G, H and W and the southerly additions to Wings J, K and L as they may be required. This provides adequate expansion and yet keeps the clinical offices immediately adjacent to the patient floors. It provides the opportunity to have seminar rooms in the clinical departments to which bed patients can be brought with minimum travel and inconvenience.
3. Pre-clinical Department Offices and Laboratories -- these are provided in Wings J, K and L and the southerly additions to these wings as they may be required.
4. Animal House -- it is recommended that animal space be provided on every floor of the new animal and research wing. This would make animal space convenient to every department of the center.
5. Research Space -- by having research space available in the animal and research wing on every floor and in the research wing connecting this to the teaching wing, it will make for great flexibility in use and economy in time on the part of investigators.
6. Teaching Space -- the proximity of teaching space (laboratories, classrooms, lecture rooms, seminar rooms) to both clinical and pre-clinical departments at every floor level will make for better interdepartmental use of such space.
7. The Nursery -- at the 4th floor level it is suggested that the Nursery be relocated into a dead end wing such as Wing B or Wing C in order to eliminate through traffic. An alternate plan would be to build a balcony passage along the northerly outside wall of Wing E for through traffic.
8. Pediatrics Clinic -- it is suggested that the Fourth Floor be added to Wing U for this purpose. This would place the clinic on the same floor as the department itself.

FIFTH FLOOR

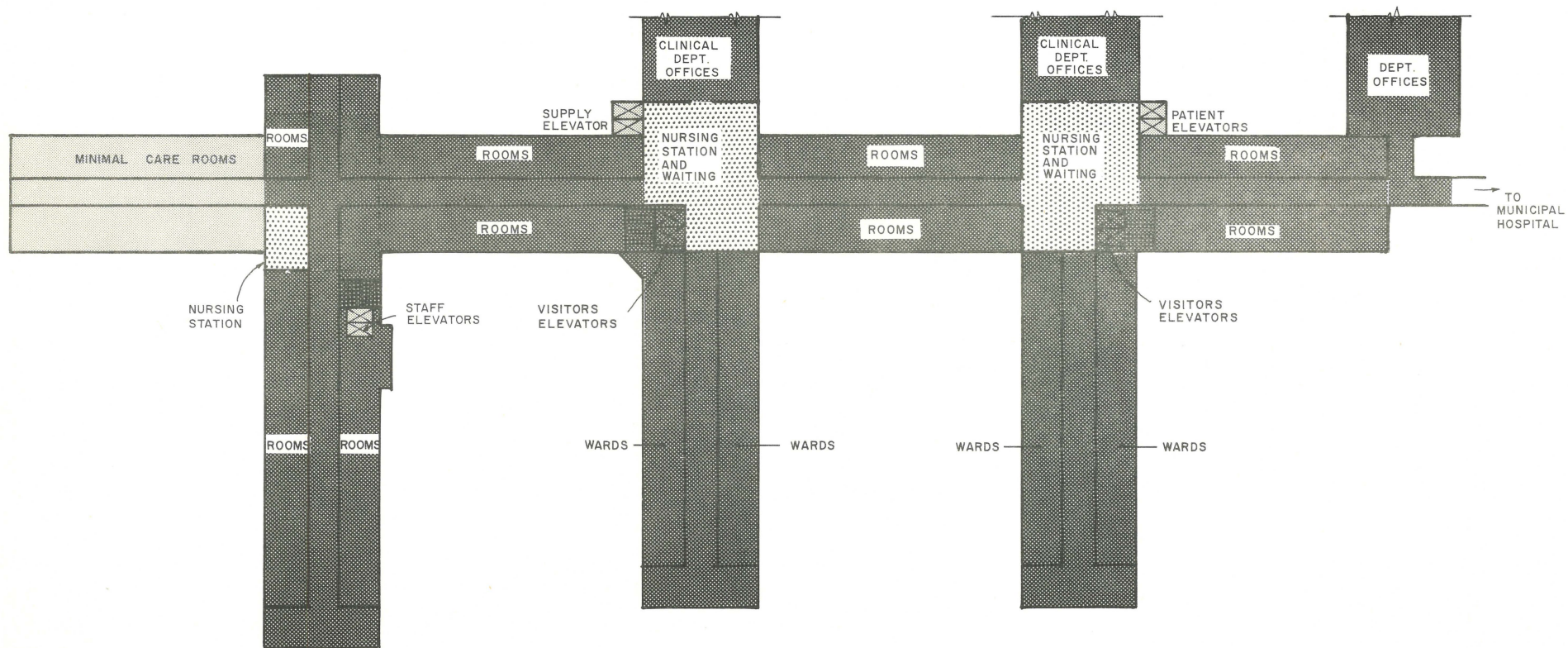
- NEW
- EXISTING
- REMODEL



The Fifth Floor

This floor is similar to 2, 3 and 4 with these differences:

1. Delivery and Labor Rooms -- it is suggested that the present Operating Room suite be converted to Delivery Rooms. A passage outside the north wall of Wing E is suggested to eliminate possible contaminated traffic through this area.
2. Dentistry -- an entire wing has been provided for the School of Dentistry.
3. Obstetrics and Gynecology Offices -- these are immediately adjacent to the Delivery Room and patient floors to provide immediate accessibility.



TYPICAL PATIENT FLOOR

Typical Patient Floor

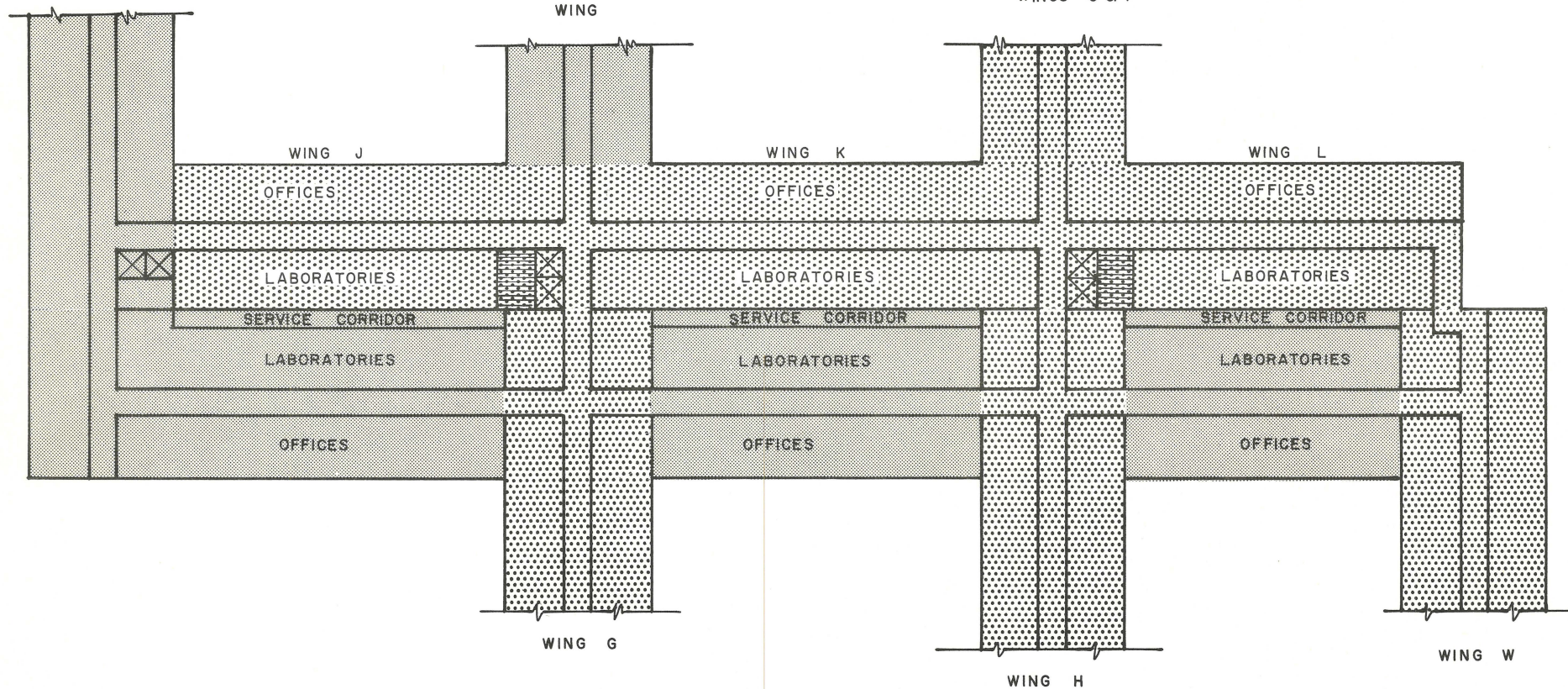
This plan shows:

1. Nursing Stations -- the location of the nursing stations will permit larger and better equipped centralized stations which will enable more patients to be handled per station. The location also facilitates better control of the traffic on the elevators, both of visitors and patients. It is proposed that new clean materials be supplied to patient rooms through cabinets in the corridor wall opening for supply purposes into the corridor (filled by non-nursing personnel) and opening for use by the nurse into the patient room. Similar corridor wall cabinets would be used for waste or soiled material -- being filled by the nurse from the room side and emptied by non-nursing personnel from the corridor side. This minimizing of nurse travel trips makes it possible to centralize the stations and lengthen the travel distance.
2. Supply Elevators -- these new elevators reach Hospital Stores and the Equipment Center at the Basement level and the kitchen at Ground Floor level. They reach the patient floors as close to the center of the entire complex as it is possible to have them. In this same vertical core will be the waste chute to the incinerator.
3. Patient Elevators -- these new elevators will take care of patient traffic conveniently to the Admitting Office and Cashier, to the Operating Room, to the Emergency Department, to Radiology.
4. Clinical Department Offices -- adjacent to patient floors.

NEW WING FOR
ANIMALS & RESEARCH

NEW TEACHING
WING

WINGS O & P



TYPICAL FLOOR SHOWING
LAB. AND OFFICE ADDITION

Typical Laboratory and Office Addition

This plan shows the arrangement of offices and laboratories in the addition and the inter-relationship of the addition to existing facilities as well as the new teaching, animal and research wings.

The proposed construction provides interior laboratories without windows and exterior offices with windows. Many new laboratory buildings are being built today in this same pattern. This permits the use of a central service corridor for all the pipes and ducts which are required. In our case it also provides an easier way to bring the air conditioning to those floors as the service corridors are entirely in new construction.

ADDITIONAL AREA

IN GROSS SQUARE FEET (APPROXIMATE)

EAST COURT	B.G. I	21,440
CENTRAL COURT	I	6,000
WEST COURT	B.G. I	26,250
SOUTH WEST COURT	B.G. I	24,250
MINIMAL CARE	B - 5	35,000
WING Z	B - 5	45,000
ANIMAL AND RESEARCH WING	B - 5	103,000
TEACHING WING	B - 5	80,000
CONNECTING RESEARCH WINGS	B - 5	67,000
SOUTH J WING	2,3,4,5	18,400
SOUTH K WING	2,3,4,5	18,400
SOUTH L WING	2,3,4,5	15,500
STAFF HOUSE	B.G. I, 2	19,000
AMBULANCE COURT	G. I	<u>22,900</u>
TOTAL		502,140

PRESENT AREA IN THIS BLOCK EXCLUDING ATHLETIC BUILDING &
SERVICE BUILDING IS APPROXIMATELY 700,000 SQUARE FEET.

PRESENT AND ADDITIONAL BED COUNT

	STRONG		MUNICIPAL		PSYCHIATRY		MINIMAL CARE	
FLOOR	EXISTING	ADD	EXISTING	ADD	EXISTING	ADD	EXISTING	ADD
G	—	—	—	—	—	—	—	20
I	—	—	—	—	—	—	—	—
2	72	90	68	28	12	—	—	20
3	109	60	60	28	34	—	—	20
4	125	40	28	60	28	—	—	20
5	100	20	30	48	—	—	—	20
TOTAL	406	210	186	164	74	—	—	100

SUMMARY

	<u>EX.</u>	<u>ADD</u>
STRONG	406	210
MUNICIPAL	186	164
PSYCHIATRY	74	—
MIN. CARE	—	100
	666	474 (71% INCREASE)

1140 TOTAL BEDS