

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

MINUTES OF THE CAMPUS PLANNING COMMITTEE

Meeting No. 235

January 6, 1965

The Campus Planning Committee met at 9 a.m. on January 6, 1965, in Room 120 of the Administration Building. Mr. Wilmer Smith, Chairman of the Campus and Building Committee of the Board of Directors, was present. Members present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Others present were Mr. R. L. Mason, Mr. O. R. Downing and Mr. John G. Taylor.

2919. Approval of Minutes

On motion by Mr. Urbanovsky, seconded by Mr. Barrick, the Minutes of Meetings Nos. 229, 230, 231, 232, 233 and 234, with the correction of parking lots nos. 26-33, Attachment No. 538, page 1613A, were approved. (A copy of the corrected page is included in these Minutes. Please substitute it for the other page in the Minutes of Meeting No. 227.)

2920. President's Approval of Minutes

President Goodwin approved the Minutes of Meetings Nos. 230 and 231 on December 10, 1964.

2921. Agricultural Facilities (CPC No. 93-64)

Horse Facilities

The Chairman reported orally on the meeting with Dean Thomas and Dr. Durham on January 4, 1965. The written report of the meeting is attached to and made a part of the Minutes. (Attachment No. 556, page 1667)

2922. Architects' Rates

The members of the Committee have received copies of the replies of The University of Texas and A&M. The Chairman reported that a reply has been received from East Texas which covers a six percent fee, plus the cost of the clerk-of-the-works and a copy of the contract. Requests have been made to some six institutions, and the information will be supplied to all members as it becomes available.

(After the meeting, replies were received from Lamar Tech, the University of Houston and West Texas State, and copies were sent to all who were present.)

2923. Bookstore Addition (CPC No. 69-62) (H. A. Padgett, Jr., \$238,499 - August 1, 1964)

Final Acceptance

It was agreed that the owner had full use and occupancy of the facilities on August 1, 1964, and the Bookstore operation suffered little or no inconveniences; in fact, some advantages were provided by the contractor.

It was agreed that the final acceptance date would be December 1, 1964, subject to approval by the contractor, and it would only set a date for the one-year guarantee period. No liquidated damages will be recommended.

2924. Campus LightsA. Library, Student Union, Music Building, Horn, Knapp, Drane, Doak and Weeks Area (CPC No. 95-64)

Mr. Downing reported that the installation is approximately 98 percent complete, and the last four standards are being set today.

B. Men's Residence Council Request

Mr. Downing reported that he and Chief Daniels had made a study to improve the lighting conditions on the parking lots at the men's residence halls, as requested by the Men's Residence Council through Mr. Phil Wright. Arrangements have been made to go over the results with Mr. Wright as soon as he is free.

2925. Chemical Research Building (CPC No. 87-64)

Dr. Goodwin, and Dr. Joe Dennis, Dr. Arthur L. Draper and Dr. Richard J. Thompson from the Chemistry faculty, entered the meeting and participated in the discussion.

The architects have suggested a narrow connection between the present building and the proposed building, with the feeling that it would be more logical from an architectural standpoint. The Chemistry faculty favors a wider connection which would include storerooms, shops and offices.

It was agreed to request Mr. Bob White of Pitts, Mebane, Phelps & White to return to the campus to study the ideas of the Chemistry representatives as soon as possible.

2926. Classroom-Office Building (New) (Foreign Languages and Mathematics) (CPC No. 79-63)

Mr. Taylor reported that Miss Clewell is completing the inventory of space today, and it will then be ready for typing. Mr. Barrick reported that the architectural plans are complete and are being reproduced today. Mr. McCutchan is working on the movable equipment, and the information should be in shortly. It was agreed that the application will be in the mail not later than January 13, 1965.

2927. Dormitory and Dining Facilities (Project CH-Tex-150(D))A. Unit A (CPC No. 63-61) (H. A. Lott, Inc., \$2,764,540 - August 1, 1964)Year's Guarantee

There has been very little difficulty with the incinerators this year, due primarily to the way they are being used. The students are carefully putting aerosol cans, coat hangers, plastic and boxes in the containers at the entrances, with most beneficial results. The students are to be commended for their good cooperation.

There is a bit of a problem, still, with the air conditioning unit, but the manufacturer is correcting the problem.

It was the consensus that the contractor has taken care of all the items on the punch list resulting from the one-year's guarantee.

B. Units B and C (CPC Nos. 72-62 and 73-62) (H. A. Lott, Inc., \$2,788,420.40 - August 1, 1964, and \$3,513,215.13 - August 1, 1964)Construction Progressa. Elevators

The Esco Company completely replaced the drive mechanism on the elevators during the Christmas holidays and has set up

2927. Dormitory and Dining Facilities (Project CH-Tex-150(D))

- B. Units B and C (CPC Nos. 72-62 and 73-62) (H. A. Lott, Inc., \$2,788,420.40 - August 1, 1964, and \$3,513,215.13 - August 1, 1964)

Construction Progressa. Elevators (continued)

a maintenance office in Lubbock. There is now a maintenance man on full-time duty in Lubbock. The only report on malfunctions since the change-over was a stuck elevator on Monday. Prospects at the moment for proper functioning are much brighter.

b. Incinerators

The manufacturer has been very diligent in attempting to work out the problems and since the last mechanical problems were corrected, there seems to have been no malfunction. There is still a bit of improper use of the incinerators, and it would help the operation if the residents would follow more closely the example set by those in Unit A.

-----Mr. Guy J. Moore entered the meeting.-----

c. Snack Bar

Mr. Moore reported that the snack bar in Unit C has been in operation for one full month. The income is averaging about \$100 per day without a menu or publicity. Twelve tables and Bentwood chairs have been moved from the dining room in Bledsoe and Gordon Halls to the snack bar. He feels that the shakedown has been completed now, although they are still experimenting with the menu. It looks as if the novelty is not wearing off and the operation has been well received by the residents.

d. Sunken Terrace (South of Snack Bar, Unit C)

Mr. Urbanovsky reported that the plans are almost complete and 15 or 16 test holes have been drilled. Some structural information is being provided by Mr. Barrick. Mr. Urbanovsky will, as soon as possible, pull all the information together to make a complete cost estimate and project report for approval prior to the beginning of work. It is anticipated that Mr. Downing's personnel can do the work.

e. Cooling Equipment

Mr. Downing reported that the cooling equipment is in fairly good shape. There are still some isolated problems with the controls, but the contractor is continuing to make the needed adjustments. Mr. Moore reported that a number of windows were opened by students yesterday when the day was fairly warm. Part of the problem is to keep the windows closed until the balancing can be completed.

f. Utility Drawings

Mr. Mason reported that the changes which were made during the holidays have been recorded on the plans, and the plans are now being reproduced. Copies will be distributed as soon as they are available.

g. Fountains

Mr. Barrick reported that the architects think all the fountains now hold water, with possibly one exception. Mr. Moore thinks the one in Hulen Hall needs attention, and it will be checked.

2928. Dormitory Expansion

By Item No. 2913-B, page 1653, the Board of Directors approved a major project to be ready on September 1, 1967, with specific steps to be made for implementation at the meeting on February 13, 1965, as follows:

"The project is to be on campus and as close to the College as possible. The CPC is to make a recommendation on the size. It is not necessarily to be an overall new scheme. Private financing should be checked in order to leave room for private housing to enter the picture.

"The facilities will be required, regardless of the long-range plan for the College which will depend, to some extent, on the stated policy."

(Other references are Item No. 2879, page 1618, and Item No. 2894, page 1633, and the attachments.)

A. New Project

The following items were considered:

1. Site

It was agreed that it would be well for everyone to do some individual thinking on the subject and to hold a separate meeting.

2. Architects

It was agreed that it would be well for everyone to do some individual thinking on the subject and to hold a separate meeting.

3. Type

It was agreed that it would be well for everyone to do some individual thinking on the subject and to hold a separate meeting.

4. Size

The project is to accommodate 3,000 students if possible. However, there may not be enough local funds to finance the movable equipment on such a large project.

5. Inspecting PartyInstitutions to Visit

It was agreed that it would be well to send out an inspection party with the least delay possible, and that the party should include a member of the Board of Directors, if possible, and Mr. Barrick, Mr. Taylor and Mr. Moore.

Mr. Moore has prepared a written list of suggested schools to visit and the reasons for listing each. The list is attached to and made a part of the Minutes. (Attachment No. 557, page 1668)

Mr. Taylor and Mr. Moore have prepared a list of items to be checked, and it is attached to and made a part of the Minutes. (Attachment No. 558, page 1669)

B. Private Financing

The Chairman reported that letters have been written to the following companies: L. F. Rothschild & Company, New York, New York; Coker Brothers Construction Company, Dallas, Texas; Mid-America Appraisal & Research Corporation, Chicago, Illinois;

2928. Dormitory ExpansionB. Private Financing (continued)

Richard Lamb & Company, Dallas, Texas; Campus Housing Development Corporation, New York, New York; Rowles, Winston & Company, Dallas, Texas; Centro Development Corporation, Dallas, Texas; Educational Facilities Laboratories, Inc., New York, New York; and Tishman Realty & Construction Company, Inc., New York, New York. All have expressed an interest in housing, and the letters requested their thoughts and advice.

In addition, letters have been written to The University of Texas, University of Houston and North Texas State with a request for the benefit of any experience there.

Mr. Jimmy Colvin, Business Manager of The University of Texas, has replied that The University has no such housing, but there are some off-campus, luxury housing projects for women students, and some are being planned for men. The projects seem to be operating quite satisfactorily, and the owners want to operate as closely as possible with The University.

The University is planning a project for approximately 1,000 men on the Breckenridge tract and plan to construct facilities for the same number of women close by, with a central feeding unit. The projects are to be financed by HHFA.

A copy of a dormitory survey prepared by Mr. C. H. Sparenberg, Comptroller of The University System, has just been received and will be made available to the inspection party and those present.

Mr. C. F. McElhinney, Senior Vice President and Treasurer of the University of Houston, has reported that the University has no experience with such housing, but suggested that Emerson and Company of San Antonio be contacted for a possible interest in the Texas Tech project.

C. Public Financing

A check will be made with the HHFA.

2929. Housing (Other) and Food ServiceA. Consolidated Food Service Unit for West, Sneed, Bledsoe and Gordon Halls - November 1, 1964, and Central Food Facilities - September 1, 1964 (CPC No. 74-62)

Additional study will be necessary before a recommendation can be made for final acceptance.

B. Housing Office

The information is ready to give to Mr. Barrick by the Chairman.

C. Married Student Housing

This is an informational item only.

A survey last summer indicated that there were 1,005 apartments in the general vicinity of the College, and most of them were devoted to married student housing.

2929. Housing (Other) and Food ServiceC. Married Student Housing (continued)

Attached is a letter from Mr. Howell Killgore, dated November 24, 1964, in which he states that his group has 200 units in use, 200 more under construction, and he is planning 200 additional units. (Attachment No. 559, page 1670)

2930. Infirmiry Addition (CPC No. 85-63) (C. M. Pharr Construction Company, \$47,888 - September 1, 1964)Final Acceptance Date

The project was substantially complete on September 1, 1964, and the College had beneficial occupancy from that date forward. It was agreed to recommend that liquidated damages be waived and the final acceptance date be established as of December 18, 1964.

2931. Killgore Beef Cattle Center (CPC No. 75-62) (Walter E. Wirtz, \$378,839)Final Acceptance Date

The main unit was accepted on January 16, 1964.

Dean Thomas, Dr. George F. Ellis, Jr., Mr. Barrick and Dr. Ulich have reported that the contracts with Brown-McKee, Stout Steel Builders and Stewart Engineering and Equipment Company have been completed.

It was agreed to recommend November 25, 1964, as a final acceptance date, as it is the date of Dr. Ellis' report, which was the first received.

2932. KTXT-TV

It was felt that not enough information was available for the CPC to make a recommendation on Mr. McElroy's question, but if funds are available to pay for the 750-foot tower, it would be well to consider moving the present tower before the additional height is added. However, further study should be made before the final decision is reached.

2933. Library (CPC No. 12-58)

Copies of letters from Mr. Barrick dated December 16, 1964, and from L. W. Pitts dated December 8, 1964, are attached to and made a part of the Minutes. (Attachment No. 560, page 1671)

It was agreed to recommend the rates and maximum as set out in Mr. Pitts' letter, except the percentage to be paid should be  $1\frac{1}{4}$  percent rather  $1\frac{1}{2}$  percent, as an error was made by the CPC in its recommendation. Mr. Barrick is to contact Mr. Pitts.

2934. Long-Range PlanA. City Officials

In keeping with his suggestion, it was the consensus that it would be well to invite Mr. McCollough, the Director of Utilities, and anyone else he might wish to the plot plan room to discuss possible future plans in order for him and his staff to be as up to date as possible.

B. Planning Seminar Sponsored by Kidde Corporation

The papers presented at the meeting which Mr. Taylor attended have been received and are considered good enough to be included in the permanent records. Consequently, copies are attached to and made a part of the Minutes. (Attachment No. 561, page 1672)

2935. Museum

A report of the meeting held on January 5, 1965, is attached to and made a part of the Minutes. (Attachment No. 562, page 1673)

2936. Other ItemsA. Southwestern Public Service Company Easement

Mr. Mason reported that the Southwestern Public Service Company is preparing the first draft of the easement and will present it to the CPC.

B. Safety Precautions

It was reported that some question has been raised as to whether or not the required safety precautions are being observed in the handling of radioactive material on campus. It was agreed that it would be well for a check to be made to see if there is any question of improper handling, and Mr. Taylor was requested to instigate the check.

C. Master Plan

The many studies and meetings of late have indicated again that it probably is desirable to have a master plan which could include the long-range items that have been mentioned, such as housing, academic plans, perhaps some phases of parking, etc. There seem to be enough different plans and studies which could be stabilized and perhaps coordinated by a master plan. It was the consensus that such a plan could have a good bit of merit.

It was agreed that the development of a master plan, if it is done, probably should be made by the best professional person or firm available, and that it probably would be so expensive that it would be necessary to have a gift to cover the cost.

It was agreed that additional thought would be given to the subject before a recommendation is made.

2937. ParkingA. Board Action

At the last meeting of the Board of Directors, the following actions were taken:

1. Ports of Entry

Instructed the preparation of a fairly precise plan for ports and the use in connection with the overall campus parking and traffic operation. It should be a rather complete and concrete report, including the overall details of operation.

2. Guidelines

The guidelines to be established would be dependent on the study in connection with the ports of entry.

(A thoroughly objective study of how much parking space can be installed close in, even at the expense of some esthetics, should be prepared.)

B. Board's Requests

On December 14, 1964, the Board's request was reported to Dean Lewis N. Jones, Chairman of the Campus and Traffic Commission, Chief Bill Daniels and Mr. Mike Stinson, Chairman of the Traffic Committee of the Student Council, with the request that they be thinking of means to implement the request.

A report of the meeting held on January 5, 1965, is attached to and made a part of the Minutes. (Attachment No. 563, page 1674)

2937. ParkingB. Board's Requests (continued)

In addition, Mr. Urbanovsky plans to add possible future buildings and parking lots, in keeping with the present ratio of spaces to enrollment, to the scale model and take pictures in order to compare the present campus with how it may look in the not-too-distant future.

C. Doak Hall Request

Attached to and made a part of the Minutes is a copy of a letter from the Doak Hall Association under the date of October 19, 1964. (Attachment No. 564, page 1675) Advance copies had been sent to those present.

Since receipt of the letter, arrangements were made for the Doak residents to park on the Administration lot (in front of the Bookstore) and the lot north of the Infirmary after work hours and until 7:45 in the morning. They were reminded that the lot behind the Bookstore is now a fire lane, and there is to be no parking.

Dean Jones, Chief Daniels and Mr. Stinson had been requested to check out all the items listed in the request, and they said they would do so, with Chief Daniels taking the lead.

At the CPC meeting, Mr. Urbanovsky said that he had some sketches prepared of what might be done south of Doak, and Mr. Barrick suggested that panic hardware be installed on the west door in order to prevent unauthorized personnel from entering.

All ideas should be included in Chief Daniels' report.

2938. Traffic-Security FacilitiesFinal Completion

Mr. Downing reported that the solar screen is now in the process of installation, and it is the final item.

2939. Utilities

Mr. Mason reported that the City of Lubbock has made the switch-over of the electrical services at the substation by the Meats Lab to underground service during the holidays, but has yet to remove the overhead wires. This will be done shortly.

2940. Wage Scale

Mr. Barrick has accumulated information on the various wage scales in the vicinity and made a tabulation, which is attached to and made a part of the Minutes. (Attachment No. 565, page 1676)

It was agreed that all members will carefully study the rates, and a recommendation will be made to the Board of Directors on February 13, 1965.

2941. Will Rogers' Statue

Mr. Downing is working with Mr. Gerald Cagle from Men's Residence Hall No. 10. As soon as he has his plans in shape, he will get together with Mr. Urbanovsky to work out a solution.

M. L. Pennington  
Chairman

The meeting adjourned at 2:20 p.m.

IV. Background InformationA. Parking Spaces1. By Date and Type

<u>Year</u>	<u>Reserved</u>	<u>Other</u>	<u>Total*</u>
1960	333	4,676	5,009
1961	509	4,676	5,185
1962	801	4,676	5,479
1963	1,046	4,938	5,984
1964	1,202	5,101	6,303

\*Parking lot at the Stadium is used by agreement with Auditorium-Coliseum operating committee and the 2,000 spaces available are not included.

2. By Lot

<u>Lot No.</u>	<u>Lot</u>	<u>Staff</u> <u>Dirt Paved</u>	<u>Student</u> <u>Dirt Paved</u>	<u>Reserved</u> <u>Paved</u>	<u>Special</u> <u>Paved</u> (30 min.)
1	Science			509	
2	C & O			289	
3	Library			248	
4	West Engineering			156	
5	Women's 6, 7, 8 & 9		540		
6	Women's Gym	18			
7	Room Reservations	19			
8	Knapp Hall		30		
9	Infirmery	8			
10	Infirmery (30 min.)				44
12	Administration Bldg.	401			
13	Drane & Horn Halls		273		
15	Music Building	16	48		
16	North of Women's 8 & 9		480		
17	Agriculture Building	24			
19	Social Science	142			
20	West of Textile Engineering	34	28		
22	Textile Engineering	17			
23	East of Stadium		600		
24	Bledsoe, Gordon, Sneed & West	72	500		
26	Men's Gym	13	113		
27	Men's Gym	14			
28	Thompson Hall		215		
29	Carpenter Hall		260		
30	Wells & Gaston		430		
31	Men's 9 & 10		488		
32	Agricultural Plant Science	35	60		
33	Physical Plant Bookstore	154			25
TOTALS		69	898	688 3,377	1,202 69
TOTAL PARKING SPACES ON CAMPUS: 6,303					
PARKING SPACES AT STADIUM-COLISEUM: 2,000					

B. Vehicles Registered

	<u>1961-62</u>	<u>1962-63</u>	<u>1963-64</u>
Faculty and Staff	1,521	1,309	1,538
Off Campus	5,564	4,931	4,935
South Dorms	659	739	836
North Dorms	861	861	982
West Dorms	868	1,001	1,386
Reserved Parking	512	1,135	1,672
Freshmen	216	287	447
Scooter	72	25	62
Special	1,855	1,362	2,058
Total	<u>12,128</u>	<u>11,650</u>	<u>13,916</u>

Campus Planning Committee  
January 6, 1965  
Attachment No. 556  
Item 2921

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

Office of the Vice President  
for Business Affairs

Agricultural Facilities  
(Horse Facilities)

At 10 a.m. on January 4, 1965, a meeting was held to discuss the moving of the horse facilities. Present were Dean Gerald W. Thomas, Dr. Ralph M. Durham, Mr. E. J. Urbanovsky and M. L. Pennington. The following actions were agreed on:

1. Inspecting Team

It was agreed that it would be a good idea to send out an inspecting team to get the latest information possible on facilities, materials, function, cost, fencing, work area, and any other information available.

It was thought that Dr. Durham, and Dr. Harbaugh if he wishes, and Miss Jerry Kirkwood from the Office of the Supervising Architect, with Mr. Barrick's approval, should go.

(Shortly after the meeting, a check was made with Mr. Barrick, and he agreed that it would be well to send out the inspection team and that Miss Kirkwood of his staff would go.)

2. Places to Visit

6666 Ranch, Guthrie, Texas

Waggoner Ranch, Wichita Falls, Texas

Fulton Stables, Lubbock, Texas

And perhaps others

3. Facilities

A. Location

The site on campus has been set for a good long while.

B. Horses

Dr. Durham thinks that probably 20 head will be required for instructional use.

4. Time Schedule

It was felt that the facilities should be installed as soon as possible.

Dr. Durham thought it would be well to arrange the inspecting trip during the final exam period of this semester, and he was to arrange the travel schedule with Miss Kirkwood.

5. Financing

It was estimated that the amount needed probably would run around \$20,000.

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Campus Planning Committee  
January 6, 1965  
Attachment No. 557  
Item 2928-A-5

TEXAS TECHNOLOGICAL COLLEGE  
P. O. Box 4639  
Lubbock, Texas 79409

Office of the  
Director of Residence Halls

January 6, 1965

Mr. M. L. Pennington  
Vice President for Business Affairs  
Campus

Dear Mr. Pennington:

I have completed a search of my files for information on various types of construction. Enclosed is the information on various schools and the states they are in.

I have personally visited the halls at the University of Wisconsin, Indiana University, Ohio State, University of Missouri, University of Colorado, UCLA, U of C, Berkley, and U of C, Santa Barbara, and those in Illinois, and for variation of types, I can recommend them for the visit.

Information on the other halls is from the ACUHO Newsletter and other residence halls brochures.

I will be happy to contact any of these schools for further information if you desire to do so.

/s/ Guy J. Moore

Guy J. Moore  
Director of Residence Halls

GJM:dt(b)

CALIFORNIA

The University of California at Los Angeles, Reiber Hall, was just recently completed. The new structure is coeducational and has been designed to provide a scramble system in the cafeteria. It has recreational facilities, TV rooms are included, is a multistoried building.

The University of California, Santa Barbara, opened a residence hall in 1963 - San Miguel - it is the first high-rise structure on campus, and has been in operation two years. It consists of two towers, connected at the base, with a one-story complex providing central lounge, recreation, office and service areas. It was designed by Charles Luckman Associates. The stated purpose of the building was to conserve valuable land, and also to place the students in smaller social living units. Approximately 25 students live on each floor of the tower, in rooms for one, two, four and a few for six people. At the center of each floor is a living area designated as a study room. The students who live in this building eat at a central food service which is coeducational.

University of California at Berkeley - Series of three or four towers of eight - ten stories with central toilet facilities and commons building for post office, food service and recreation facilities.

ILLINOIS

Southern Illinois University - This school has a complex which has been in operation approximately seven years, of 1350 students in 11 three-story buildings, each housing 120 students. Each building has a supervisor's apartment, classroom and lounge adjacent to the building. These buildings are also two rooms connected by a bath. They are furnished food service by a central dining facility, recreation hall and administrative headquarters.

In addition, this school now has under construction a residence hall for 820 women in suites of two rooms connected by a bath, in a 17-story building. Grouped around the high-rise building of 17 stories are nine four-story buildings housing 1,000 men, with gang-type facilities.

If the state of Illinois is visited, I would also suggest visiting Illinois State University at Normal, Illinois. In the past five years, they have been building their residence halls in complexes and have at least three 11-story buildings, plus a commons building.

I would also suggest the University of Illinois at Urbana. They are well acquainted with private financing, and house approximately 12,000 students, I believe. They use a mixture of five-story men's halls and twelve-story women's halls in one complex for 1210 students.

COLORADO

University of Colorado - Boulder. They constructed in 1963 and 1964 five separate buildings, two housing men, two housing women, and a commons building for recreation and food service. The University of Colorado normally goes in for the tall, tile roofs and brown brick construction, in keeping with their campus.

MISSOURI

University of Missouri - One group of residence halls consists of two eight-story residence halls, each hall housing 584 persons. This, too, is a coeducational area of 584 women, 584 men, connected by a two-story dining and central lounge building. This is built on a T-form and gives a living unit of approximately 75 students per floor, but are grouped into the body and two wings of the T. It has a bathroom and gang-type showers on the corner of each wing. They use one paid staff member to oversee the 75 students. Each floor of 75 students is provided with a small lounge.

Rolla School of Mines - New construction - close to Columbia.

MASSACHUSETTS

University of Massachusetts - This is a high-rise building, housing 1300 students. It should have been completed in the fall of '64. This building is a 22-story building, high-rise construction complex. (This should be checked for completion, since it was under construction at the time I learned about it.)

INDIANA

Indiana University - Bloomington, Indiana - This unit has several buildings in what we consider as tower groups, high-rise, and several three- and four-story buildings. They have two or three complexes, coeducational, and separate units for men and women. They also have a dining room-office building, plus one group of cooperative housing for undergraduate men, and three floors of cooperative housing for undergraduate women. They also utilize several six-story buildings.

Ball State Teachers College - Muncie, Indiana - This school has begun its second year in a specially designed, coeducational residence hall for 932 students. This building is four wings, four stories high, for 460 women, 472 men. They use a central lounge, dining room and recreational area.

MICHIGAN

Michigan State University, Lansing, Michigan - This school is now using both high-rise and conventional three- and four-story buildings in complexes. Under construction is a complex which will consist of three coeducational residence halls and a separate library building which will service the living unit. They were scheduled for completion in the fall of '64, and each will contain S-shaped, six-story living wings, joined by a central building which will house the food service, recreation and lounge facilities, classroom, laboratories and academic office. These residence halls will house 612 men and 612 women. This last construction also consists of two rooms separated by a bath, with an additional room for study for four students.

University of Michigan, Ann Arbor - 50 miles from Lansing, and now has coeducational housing and a variety of facilities.

OKLAHOMA

University of Oklahoma - Norman, Oklahoma - A new high-rise, and close.

NEBRASKA

University of Nebraska - This school opened a 13-story, twin-tower residence hall in fall of '64. The complex houses 468 women in one tower, and 468 men in the other one. There is a food service building between the two towers. They also have under construction an additional 13-story men's residence hall, scheduled for completion in August, 1965.

MONTANA

Montana State College - They have recently completed a new high-rise residence hall for 600 men, and they have an adjoining food service building. The hall is the first of a complex to consist of eight residence halls and four food service buildings. Each one is to accommodate 1200 students. This project is being constructed as needed with the increasing enrollments. A "scramble" cafeteria service will be used for the first time.

WASHINGTON

Washington State University, Pullman, Washington - Opened a new men's residence hall for 520 this fall. One feature is that the lounge is located on the top floor of a 12-story building. Complete vending service is provided for food. In 1964, they also completed a second residence hall for 520, and a dining hall for the 1,040 students. All vending has been placed with the best bidder, with revenue payable to housing and other university funds.

RHODE ISLAND

Brown University, Providence, R.I. - This is a unit for approximately 390 women which was completed in the fall of 1963. The arrangement of bath facilities is at a ratio of approximately 5 to 1, giving a semiprivacy plan. The statement was that the 5 to 1 ratio added only about \$700 more than the usual gang-toilet, or central, plan. This building has 81 double rooms and 65 single rooms. On the first, or ground, floor, in addition to the living rooms, is a central lobby for a receptionist and a central telephone for the four units. An apartment for the Head Resident, and also for a graduate assistant, is furnished. The plan shows a study lounge, work-room and kitchen unit in the connector for the two units. They use built-in walnut dresser units with overhead storage cabinets. Pembroke is a residence hall at the University, and all noncommuting women are required to live in. The University is required to house them. The rooms are actually a service for three people in one room and two in an adjacent room.

WISCONSIN

University of Wisconsin - This school has several high-rise buildings of ten and eleven stories. A new one was completed in 1963, and is built on a twin-tower plan, with a common lounge, lobby, snack bar and desk on the first floor, connecting the towers. One of the houses holds 565 men, the other 565 women.

SOUTH DAKOTA

South Dakota State College at Brookings - They were in the process of constructing a new women's residence hall in 1963 for approximately 450 women. This should be the third and concluding phase of a three-hall complex, housing 1768 students grouped around a central food service. They are also planning some renovation and consolidation of older food service units.

Campus Planning Committee  
January 6, 1965  
Attachment No. 558  
Item 2928-A-5

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

Office of the Vice President  
for Business Affairs

January 5, 1965

Dormitory Expansion

On December 16, 1964, Mr. Taylor and Mr. Moore prepared the following list of questions and suggestions to be checked by the inspecting party for possible use with the proposed new dormitory project.

1. Distance to center of campus (any transportation facilities).
2. Size of central feeding operation.
3. Type of food service.
4. Class schedules and how they tie into the system.
5. Are there any instructional facilities within the complex (study halls)?
6. What are the room arrangements? (How many students per bath?)
7. Parking.
8. Room and board rates.
9. Staffing.
10. Cost.
11. Air conditioning? What kind?
12. Elevators - kind, size.
13. Windows and screens.
14. Telephones.
15. Furniture - fixed or movable?
16. Snack bar or concession area?
17. Recreation area.
18. Deliveries to each building.
19. Athletic quarters?

/s/ M. L. Pennington

M. L. Pennington  
Vice President for  
Business Affairs

Campus Planning Committee  
January 6, 1965  
Attachment No. 559  
Item 2929-C

3017 30th Street

SH4-8120

Howell Killgore & Company  
Construction-Developer-Leases  
Lubbock, Texas

November 24, 1964

Mr. M. L. Pennington  
Vice President for Business Affairs  
Texas Technological College  
Lubbock, Texas

Dear Mr. Pennington:

This letter will supply information concerning Tech Village Apartments and University Village Apartments for married students attending Texas Tech.

Tech Village, a 200 unit, married student housing apartment project, completed September 1, 1963, and University Village, a married student housing apartment project, 192 units, now under construction and scheduled for completion, by buildings, from December through July, were and remain married student housing at a rental of \$87.50 per month. They are fully furnished with utilities paid, with ample parking area, full coin operated laundry and swimming pool. These apartments were intended to aid married students through Tech and are being managed in such a manner as to be conducive to study.

The owners of these two apartments have land available for 200 more units which are now in the planning stage. This would give a total of approximately 600 units solely for the use of married students attending Texas Tech.

The owners of these apartments would appreciate any suggestions, information, etc., from the administration of Texas Tech concerning these apartments. Please feel free to visit or call on the managers of Tech Village, Mr. and Mrs. Jack Sharpe, or Mr. Howell Killgore on the construction site of University Village at any time.

Very truly yours,

/s/Howell Killgore

Howell Killgore

HK/cre(b)

cc: Mr. Lewis Jones, Dean of Men  
Dr. Florence Phillips, Dean of Women  
Dr. Floyd Boze, Dean of Admissions  
Mr. D. M. McElroy, Tech TV Station  
Mr. & Mrs. Jack Sharpe, Tech Village

1671

Campus Planning Committee  
January 6, 1965  
Attachment No. 560  
Item 2933

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

Office of the Supervising Architect

December 16, 1964

Mr. M. L. Pennington  
Vice President for Business Affairs  
Campus

Dear Mr. Pennington:

Re: Library Building - Completion  
of Work in Basement

Enclosed herewith you will please find a letter which was hand delivered to me by Mr. Robert White and which I neglected to give to you due to the pressure of various considerations on the Classroom Building and the Chemical Research Facility. I sincerely regret this oversight, but I do not believe that Board action of any type was necessary so that no serious damage to the schedule of the work has resulted.

I believe the letter is self-explanatory and sets forth the nature of the additional work which is not covered so far as costs are concerned by the existing contract. Mr. Pitts feels that there is no need to enter into a separate contract unless the College wishes to do so.

The assumed total of possible cost of the work in an amount of \$80,000 is a highly arbitrary one at this stage in the game. This exceeds the alternate quotation taken at the time of the original bidding procedure by a sizable amount. I am confident that quotations we receive will exceed the original ones because the work is of more limited nature and there are certain difficulties involved with completing portions of occupied buildings which would not prevail with new construction. In addition to this, there has been some definite escalation of costs in recent months.

The total amount of fees and expenses involved were intended to represent a maximum and would, of course, be adjusted downward as the amounts of contract obligations became definite.

We have given considerable thought in this office to the method of achieving the work. Although there is considerable temptation to handle the work on a subcontract basis, I believe that we would be well advised to utilize the lump sum approach. This detail, however, can be determined in further conferences as our construction schedule is definitely established.

Very truly yours,

/s/ Nolan E. Barrick

Nolan E. Barrick  
Supervising Architect

NEB/si(b)

PITTS MEBANE PHELPS & WHITE ARCHITECTS & ENGINEERS

1872 Calder Avenue Beaumont, Texas 77701

December 8, 1964

Mr. Nolan E. Barrick  
Supervising Architect  
Texas Technological College  
Lubbock, Texas

Re: Completion of Work in Basement  
Library Building  
Texas Technological College  
Lubbock, Texas

Dear Mr. Barrick:

We have reviewed the original drawings and specifications relating to completion of the unfinished basement area in the subject building. Predicated upon completing this area in accordance with the plans originally prepared by our office, we have analysed our charges as outlined below:

8 sheets of drawings to be modified slightly to explain the purpose of the new bidding - 20 hrs. x \$3.75 x 2.5	\$ 187.50
Rewriting specifications and editing so as to provide new bid forms, new advertisements for bid, new general conditions, etc. (eliminating unrelated sheets) - 40 hrs. x \$6.40 x 2.5	640.00
Reproduction of specifications, including retyping certain sheets, etc., assembling, binding, etc.	<u>350.00</u>
Total	\$1,177.50

We have talked with Ross Zumwalt concerning this work and he has suggested that they review the drawings to see if certain modifications are required. Part of this would be analysis of noise problem which might exist in these units similar to that which existed at the other end of the basement.

\$ 100.00

Total Charge Attendant to Preparing Drawings, Specifications, etc., for Bidding	\$1,277.50
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We would be pleased to accept this as a maximum lump-sum amount for this phase of the work and to keep time on the cost attendant thereto as outlined above. If less hours are required than indicated above, we would be pleased to reduce our bill accordingly.

For a fee of 1 1/2 percent of the cost of the work to the Owner, we will assist in taking bids, assist in preparation of contract documents and provide cursory supervision. This is in addition to the lump-sum fee quoted above.

The above proposals are predicated upon taking bids and handling supervision simulatneously with the Classroom Building or the Chemical Research Building.

1671B

PITTS MEBANE PHELPS & WHITE ARCHITECTS & ENGINEERS  
1872 Calder Avenue Beaumont, Texas 77701

Mr. Nolan E. Barrick  
Texas Technological College  
Re: Completion Library Basement

Page Two  
December 8, 1964

Attached hereto is an analysis of fees which you might find interesting.

We trust that the proposal as presented is satisfactory to the College and we look forward with pleasure to completing this work for you.

Cordially yours,

PITTS, MEBANE, PHELPS & WHITE

/s/ L. W. Pitts

L. W. Pitts

LWP/mm(b)

Encs

- (1) Fee Analysis
- (2) Copy of L. W. Pitts' letter to Mr. N. E. Barrick dated October 30, 1964

cc: Mr. M. L. Pennington

1671C

PITTS MEBANE PHELPS & WHITE ARCHITECTS & ENGINEERS  
1872 Calder Avenue Beaumont, Texas 77701

MEMORANDUM

December 8, 1964

Re: Completion of Work in Basement  
Library Building  
Texas Technological College  
Lubbock, Texas

For Preparation of Plans, Specifications, etc., Prior to Bidding	\$1,277.50
1 1/2 percent supervision fee x \$80,000 (Possible cost of work)	1,200.00
Previously Paid to Architects and Engineers on this portion of the work - 3.75% x \$59,234	<u>2,221.27</u>
Approximate Total Cost for this Work to the College	\$4,698.77
6% x \$80,000	\$4,800.00

The above analysis indicates that the total cost to the College for this work would probably not exceed 6% if the bids approach \$80,000.

LWP/mm(b)

Campus Planning Committee  
 January 6, 1965  
 Attachment No. 561  
 Item 2934-B

## PLANNING FOR COLLEGE AND UNIVERSITY FACILITIES

A Seminar By  
 Walter KIDDE CONSTRUCTORS, Inc.

Sheraton-East Hotel, Park Avenue and 51st Street, New York City

## ORGANIZATION OF A PLANNING PROCESS FOR EXPANSION

by  
 Edwin F. Hallenbeck, Director  
 Office of Institutional Research and Planning, University of Rhode Island

The character and environment of a college campus is established in large part by its architecture. When you visit, work or study at a college or university, you are immediately aware of and affected by the architecture. C. W. Brubaker of Perkins and Will has noted that architecture "can help or hinder, inspire or inhibit--it can create an atmosphere of dignity and decorum, or excitement and enterprise, or of anticipated adventure and discovery. You cannot think of a college without visualizing its architecture."

The Planning Process - Our first concern is with the planning process. This process must continually operate at two levels; first, for the institution as a whole and, second, with particular application to each building project. Careful review of the general philosophy and the specific objectives of the institution should be made and clarified to pinpoint a common understanding and acceptance of goals.

Implementation of both institutional and project goals involves careful and detailed study. This must be a multifaceted undertaking involving many people within the institution, although responsibility for coordinating the effort should be assigned to a major college official, either the president or one of his immediate subordinates. Consideration should include

- (1) Programs, educational, research or other needed to meet goals;
- (2) Organization required to put programs into action; (3) Personnel, including faculty, administrators and others necessary to staff the programs; (4) Facilities needed to provide a place for development of programs, for classes and seminars, laboratories and faculty offices, library resource centers, and others appropriate to each college's goals;
- (5) Financing study should carefully document the budget requirements and resources for the college and for each project.

To do this in proper perspective for successful implementation of each project requires careful long-range planning. Without a master plan, sooner or later campus chaos will result. With a master plan, a coordinated, well-conceived network of facilities can aid beyond measure in implementing the quality of the educational programs desired.

The Building Sequence - To look now at problems specifically relating to facilities planning projects. The first problem, generally overlooked and seldom appreciated, is the building sequence. This involves many steps, each requiring many people, substantial effort and, most important for

impatient building inhabitants, time. Assuming a general college master plan already formulated, an average time sequence for many college building projects will follow this outline:

#### Building Project Schedule

<u>Step</u>	<u>Function</u>	<u>No. of months</u>
I a)	Need Analysis	3 months
b)	Study and commitment	3 months
c)	Programming	3 to 6 months
II	Securing Architect	2 months
III a)	Preliminary design studies	2 to 3 months
b)	Basic drawings and outline specifications	3 to 4 months
c)	Working drawings and specifications	6 to 8 months
IV a)	Bidding	1 to 2 months
b)	Award of contract	1 month
V a)	Construction period	15 to 18 months
b)	Occupancy	1 month
<u>Total</u>		50 months

The four-year period indicated here shows clearly the many complicated steps from need to use. While some shortcuts are possible, delays are also frequent and unpredictable. You can apply the following formula to your project:

$$\begin{array}{ccccc} \text{Date} & & \text{No. of Months in} & & \text{Where you} \\ \text{Needed} & - & \text{Unfinished Steps} & = & \text{should be now!} \end{array}$$

Programming - Of all the steps in the building sequence, programming is by far the most critical. The success in any facilities planning project depends on how clearly and well the college presents the needs for the project to the architect. The program document must state the case as the first step in translating academic needs into architectural requirements. The program for your project on your campus must reflect your own particular need, but, at the same time, it must go beyond and state how much innovation you are going to ask your architect to work with.

In preparing the program, the planning process noted earlier may be followed to generate much useful pertinent data. A clear, brief statement of what the structure is expected to do will be helpful. Four kinds of information are needed in the program. First, space requirements should be stated in detail in terms of net usable square feet required for each function and space. Second, kind and quality of equipment and furnishings within the spaces must also be defined. Third, relationship of areas within the building needs definition, including clusters of spaces that must work together. Fourth, relationship to campus and other buildings underscores the part each project plays in the total campus master plan.

The program document, to be most useful, should be an evolutionary working paper. Basically, it is a description of space as you want to use it; translating it into physical shape is the architect's responsibility. The first step is writing a general outline of requirements and relationships. The second step is a review with all involved parties. We plead here for early involvement of the architect by including him in development of the program at this point. The draft program should also be reviewed by faculty and other building users, campus physical plant and construction personnel and specialized consultants, all coordinated through the college's planning office.

Following this, as preliminary schematic studies begin and on through basic design studies, all elements in the program can be further refined and innumerable details added.

Project Cues - One of the most difficult obstacles to overcome in any building project is emulation. This practice has both good and bad points. At its

worst, it can perpetuate mistakes of a generation ago, while at its best it can result in acceptance and use of the newest experiments in facilities design. Practiced selectively and carefully, following the programmed concepts of a building, many ideas in use elsewhere can be successfully adapted. We can thank Educational Facilities Laboratories for their vigorous effort to encourage experimentation, evaluate results and, most important, publish the findings. Every college and university planning office should have a copy of every EFL publication, including those dealing with lower schools. Many useful ideas and concepts have been described. Seldom, however, can they be used by direct application, and they will require careful translation into designs to meet your own particular needs.

Two other practices are also helpful. Regular reading of architectural literature and other publications can be quite worthwhile. It must be noted that many projects are published because they are unusual. While this distinction does make them of interest, it also means more often than not that they are difficult to translate into other environments. Therefore, caution must be observed and emphasis placed upon adaptation of ideas and design concepts rather than actual detail design solutions. The second practice is visiting other facilities, usually those recently completed. This, too, can be hazardous, although it can be stimulating and very rewarding. Great care must be exercised in evaluating any facility visited in terms of the programmed purpose of the building in its local context. Do not judge another college structure by the bench marks for your campus, as the goals may be radically or subtly different. This applies both to exterior and interior. Here again, study a building for the concepts and functions it performs well, with a view toward translation for meeting your own needs.

A brief summary of some concepts pertaining to specialized categories of facilities follows:

1. Teaching space, where the formal instructional activity involving faculty and students is centered, needs to be broken out of the academic box in college in much the same way architect William Caudill has done for the lower school. It is not reasonable to generate large, loosely-defined teaching areas for college classes, but the arrangements possibly need greater variety and quick adaptability than the traditional 40-student classroom, or whatever the campus standard has been. There are many things that are done much more effectively in large groups and others in small groups, sometimes with no faculty supervision. To handle larger numbers of students, it is not feasible or economically sound to generate enough space to answer all needs at once. A functional, modular concept can be adopted to lend both variety and flexibility to classroom use. For example:

I Small Groups	12 to 18 students
II Medium Groups	25 to 40 students
III Large Groups	50 to 80 students

By designing space cluster, as Perkins and Will has done at Chicago Teachers College North, the medium-group space may be split to form two small-group spaces, or combined with another to form one large-group space. Classes may then be assigned to fit spaces, which may in turn be adjusted to meet class size when appropriate. Space utilization may be considerably increased, thus requiring less rooms to be constructed. Special, very large group teaching spaces fully equipped with audio-visual and video equipment will have rapidly increased use, especially for basic courses in almost all departments, and should be considered a part of all teaching space planning.

2. Individual study space is a common need of all students in all colleges, city-commuting or country-residential. Study spaces should be created where students will use them, in libraries, residence halls, classroom areas or other likely spots. Study spaces should afford privacy and be electronically accessible to the campus academic nerve center.

3. Faculty office space, for some reason, has frequently been ignored or solved by the egg-crate pattern. The needs of faculty, who seldom spend more than 12 to 15 hours a week in classrooms, are very much like the

requirements of executive and corporate office inhabitants. A similar approach to a design solution would seem appropriate, basically the creation of space within a structure with the walls looked upon as equipment, changing perhaps annually as faculty are added and departments shifted. Attention should be paid to meeting the group needs of departments as well as the private needs of individuals.

4. Laboratory space is a monumental problem because of the size and expense involved. Scientists are never-ending in demands for space and equipment. Worst of all, they all too often request space for current and short-range needs in the most rapidly changing quarter of the college. Laboratory space, especially that used for research, should be modular, permitting changes in utilities and walls with maximum ease. A scientific project may be there tomorrow and gone the day after, replaced by a new problem. The space should change with the projects without reconstruction.

5. Libraries are really instructional materials centers and may quite appropriately include audio-visual centers to aid in the preparation of teaching materials, computer centers to aid in research and information retrieval, places to study, type, listen and perhaps relax and read a good book.

6. Arrangements for part-time students and faculty have always been a problem largely ignored. As colleges expand more rapidly, the numbers of part-time participants will inevitably grow. Ways must be found to integrate these people as fully into the college's life as the full-timers. Student study space has been noted. Faculty space could be approached by designing a special area with a desk drawer and file drawer for each individual and the rest shared. A seminar room nearby could be used for conferences, either group or with students. This is worth study for psychological as well as physical reasons.

7. Residence needs for students will be considered in more detail through a case-study review of a recent project at the University of Rhode Island, Kingston, Rhode Island; architect, Pietro Belluschi, Sesaki, Walker and Associates, and Kent, Cruise and Associates in joint venture. The housing complex is an example of careful programming and design to meet student needs in a large-scale project in human-scale design.

To conclude, merely let it be said that the importance of the task of facilities planning and design will be reflected in the structures we create. In the long run, college buildings are only as good as the work they can perform for the people who live and work in them.

PLANNING FOR COLLEGE AND UNIVERSITY FACILITIES

A Seminar By  
Walter KIDDE CONSTRUCTORS, Inc.

November 6, 1964

COMPATIBILITY OF CAMPUS ARCHITECTURE

By  
Robert L. Geddes, A.I.A.  
Geddes Brecher Qualls Cunningham: Architects, Philadelphia, Pa.

There is no absolute formula for the sure achievement of compatibility. We might well face the possibility that both compatibility and incompatibility are aspects of reality. Hopefully, we can start toward better understanding of the problem.

There is a perhaps apocryphal story. In the 1890's an eccentric gentleman proposed to give to Harvard University a million dollars to create a new building in the Harvard Yard. The requirements of the gentleman were that it be built in the Turkish style. When asked "Why in the Turkish style?" he said, "Well, it is the only style that doesn't already exist in the Yard." Should they have built in the Turkish style because perhaps that style did reflect the soul of the era at the turn of the century?

The first step in accepting architecture as one ingredient of educational policy is to recognize that architecture is, in fact, a social art. It is not picture making; it is not building a picturesque stage set; it is a serious effort of our own society. It is a product of our times. The decision making in architecture is very complex decision making, bringing together a representation, a manifestation of society.

Architecture is for future generations perhaps the most direct, honest reflection of our times. For example, our view of the Victorian era is much influenced by Victorian architecture, perhaps even more than it is of Victorian politics or even of Victorian morals. There are two characteristics of our age which I think make it very different from previous eras, and these characteristics have great architectural significance. One is that ours is an open society, and the second is that ours is a pluralistic society. It is a society that is trying to achieve a great society for all kinds of people - minorities and majorities, rich and poor, east and west. It is not an heirarchic aristocratic society, nor is it a society which has a single, monolithic goal in mind.

For example, when society was a monolithic and not a pluralistic sort, one could get almost universal agreement to build cathedrals; and when the cathedrals were being built in France, more than half of the gross national product went into the building of the cathedrals. We do not have this kind of consensus about one kind of activity or one kind of building. We have many, many goals for many different kinds of purposes; the pluralistic society implies that we are not absolutely certain of what we are doing, and we should make it possible for many different people to do many different things and to build in many ways.

It will be possible to achieve good architecture for many kinds of different situations, for small colleges and for large institutions, in dense urban societies and small towns. The results will not be a single monolithic architecture. We do not even have tendencies toward that. We are in a multiple, diffused, experimental period in architecture. We do not yet have an

architecture. When it does come, it will be a crystallization of many diverse, valid, humanistic considerations.

The old constraints are gone. Most of the old constraints on architecture were technological. There was a common denominator which related all buildings to each other. For example, people would only walk up four or five floors, and very few people would walk up thirty or forty floors. Therefore, the walk-up building had a predictable height, because people would only walk up a certain height. Now the elevator, as compared to the stairway, has changed this fact, and architecture has exploded vertically. Curiously enough, things happened at about the same time to explode the world horizontally. If the elevator had come all by itself, we would have had very dense, high buildings and very compact dense, high cities and campus plans. But other changes came along at almost the same time; it was the telephone which affected the distance between buildings. Whereas the elevator affected the "walk-up," and the telephone affected the "walk-to" buildings and, of course, the automobile has exploded the campus and the city even more. All this occurred at the same time of fast population growth, and a willingness to be dispersed and mobile.

This has occurred at the same time that modern architecture has been evolving, and as a result, you might blame modern architecture for all the ills of our environment. You could also blame our society for modern architecture and certainly for our environment. They have come at the same time, and we have not yet come to a harmony or crystallization. We might be swamped by the automobile; we might be completely dispersed by television and the telephone. It is a matter of public choice.

What do we do about it? Well, this is a bit like a story about word being passed down from on high that the world was going to be inundated by a flood within 24 hours. The three great religious groups got together, and one group said, "We have 24 hours to make our final confessions before the day of judgement," and the next group said, "We have 24 hours to come to the final consensus of opinion about the meaning of life," and the third group announced that, "We have 24 hours to learn how to live under water." Now I am of the opinion that we have to deal with this reality of ours and to live with it. It is changing radically, and it's going to have a great effect on campus planning and on the compatibility of building to building.

Some old arguments don't seem valid in the context of today's society, but I would like to review for you the three traditional questions about the relationship between buildings. First, the formal campus plan vs. the informal campus plan; second, the academic, either classic or Gothic, vs. modern architecture; and third, homogeneous architecture vs. heterogeneous architecture. The formal campus plan idea grew out of the ideas of the Renaissance and Baroque town planning and architecture. It was based on a very simple idea that major and minor axes be established and be terminated by major buildings or focal points. It is a plan which would develop a series of positions for buildings based upon major and minor axes, and a series of related, formal open spaces. If you were the architect for a building on a site in a formal plan, you would know what was expected of you architecturally. For example, with respect to this major building, you would not build one taller than this one. At least you wouldn't if you kept to the theme, because your building was supposed to be subservient to some of the major and minor axes that were developed. Very great cities have been built this way - Edinburgh, Paris, and the plan for Chicago was based on the positioning of major buildings and the likelihood that all other buildings would become "background buildings," common denominator buildings, playing a proper role in the total composition. There are some college campuses entirely based on the formal plan - The University of Delaware, the original plan for Berkeley, California, the University of Minnesota's original plan, and others. The long-term continuation of the formal plan has great limitations. One of the limitations is that it does not account for new kinds of building types, and does not allow for incremental expansion.

The informal campus plan developed often to take account of changes in topography, changes of time, changes of function. The informal campus plan, for example, is characterized by a plan with a group of buildings here, perhaps

another group of buildings over here, another group here, and something different over here. Most colleges have an informal kind of grouping. The advantage of the informal plan is that it allows for variety, diversity, and for expansion in various parts. The difficulty with the informal campus plan is that it may seem disordered, lacking in repose and unity. It might have no coherence and it might be lacking in continuity.

I suspect that in our time the informal plan - the plan which adapts itself to local conditions of site, or of differences between various buildings, high buildings or low buildings - is more likely to be the plan of the future. However, I look for new ways of making "group architecture" that will make this argument seem academic.

The second argument is about homogeneous and heterogeneous buildings. These are not discussions of past history; these are on current agenda. For example, the Air Force Academy was based on the idea of homogeneous buildings, on one monolithic kind of architecture. Illinois Institute of Technology is building a campus which intends to be homogeneous. Many colleges make the policy decision that their buildings should be homogeneous. On the other hand, many colleges and universities, either through policy decision or lack of decision or through time, have come to have heterogeneous groupings of buildings, buildings which are not identical. The future is likely to be more heterogeneous than homogeneous because the architectural functions inside a building are much more diverse than ever before. Previously, dormitories and classroom buildings were not very different, with more or less the same size of windows, etc. Now we are planning specialized kinds of buildings for nuclear reactors, for specialized graduate research facilities, for libraries, etc. These buildings are more or less heterogeneous in their nature, and little can be said for trying to "homogenize" them. Perhaps the campus plan of the future should recognize two kinds of buildings - the general purpose and the specialized.

In these terms, the third argument is one which I think is irrelevant. It is the relationship of academic (classic, Georgian or Gothic architecture) and contemporary architecture. This argument should be phrased not on aesthetic or on practical grounds, but on philosophical grounds that we are committed to present-day society. We do not seek an architecture of escape; we seek an architecture of commitment to our society. It is this philosophical basis which can make our buildings seem well together.

We have the basis of a new tradition. Instead of building pictures of buildings - instead of making a building perform with the function of being a stage set portrayal of Germany or England or Japan - we should commit ourselves to our buildings being a reflection of our own society and our own times. It is on this basis that modern architecture has to be judged.

What do we mean by tradition? Most of you who have gone back to your colleges years later find a great nostalgia in a place or a building. Tradition is bestowed upon architecture by time. Tradition is a partnership of architecture and time. It's the oldness that makes one feel at home on the old campus. In the commitment to time, there is an acceptance of truth and honesty about the "time" of the building, just as much as there is in the "place" of the building. My definition of compatibility is that a building be true to its place and true to its own time.

There are three things that I would like to say to you, as an architect, in order to establish better rapport in the decision-making process. First, it is most important to recognize the triangular relationship between three policy decisions: (1) cost, (2) quantity, and (3) quality. One point of the triangle is "cost," and I urge you to include in cost all the elements of cost - land cost, construction cost, fixed and movable equipment cost, contingency, fees, and to define total capital cost, so that it includes everything that you are going to need, so that you won't have to cut out the furniture because you have to paint the building.

The second part of this triangle has to do with "quantity," which is the amount of space and the amount of program.

The third part is "quality." Quality includes materials and finishes, the building services such as air conditioning, electrical supplies, closed circuit television, etc. Quality can also, in a sense, mean architectural development, although architecture includes all three.

As the owner, you can control two out of those three, but you must let the architect work on the design and specifications to control the third. In other words, if you say to your architect, "These two are fixed; you tell us about the third," he can do it. But if you tell him that all three are fixed, he is absolutely stuck. Nobody can move; everybody is unhappy, and you are probably going to get a new architect because you cannot control all three of those decisions simultaneously. One of them must be a variable for the other two.

If you accept the reality of the cost-quantity-quality triangle, some new things are in the offing that indicate that we can make better buildings, that we can solve problems better (you understand that, from my point of view, architecture is a problem-solving art), because of new building technology and new planning methods. We now are able to prefabricate, in concrete and in metal, larger and larger elements of a building and are able to span longer and longer distances. For example, five years ago I built a building for the University of Pennsylvania, in which we tried to prefabricate large elements of structure, but could not, and now we are building an almost identical plan unit for the same school and are able to prefabricate. Whereas we once had to build with 200 small pieces, we are now doing the same task with 6 pieces. Obviously, when one can get long, clear spaces without additional costs, the building is more likely to serve your needs with greater flexibility for years to come.

Another aspect of new technology is the ability to control the environment with greater precision and greater flexibility. This is normally called the mechanical plant, and its importance is reflected in the amount of money that colleges are willing to spend on it. This is an increasing amount; often half the cost of the building is in the mechanical services. It indicates that we are paying more money for better operational benefits from the building.

In terms of planning methods, I think we are beginning to apply to architecture some of the abilities of the behavioral sciences to improve our knowledge of man and his environment. And this may, in the next ten years, be as important as the change in the kind of mechanical equipment and precast concrete in the past ten years, in which the influence of the physical sciences has been very great in architecture.

I think the next step is the understanding of psychological behavioral aspects. This will be as important to the making of the environment in the future as the physical sciences were in the past. Dr. Humphry Osmond said, "I believe that an aesthetic of a deeply satisfying and valuable kind can grow when we start to think of ourselves as a very special kind of animal whose requirements are just as interesting, just as demanding, and just as important as the rarest creature in the finest zoo."

Now as to the definition of architecture itself. We have for a long time been overly concerned with the individual building. Architecture is presented in the press as if the individual building were the entire fabric, the entire framework to be judged. In fact, it is the grouping of buildings which is the meaningful unit for the college campus or university. And it is the group architecture that makes a college. The idea of compatibility is related to our ability to make "group architecture."

We want an overall group of buildings in which the whole is more than the sum of its parts. This is the guiding principle of group architecture. Inherent in group architecture is the time dimension.

There is both large-scale architecture and long-term architecture. In campus planning, the compatibility of building to building is the result of a combination of both. Not only is it concerned with more than one building, it is concerned with more than one building in time. One has to think of buildings which can be connected with each other, and not with the idea of a

single building designed in such a way that one can't add on to it. For example, the very monumental building which has a formal, symmetrical kind of a plan - you probably have some building like this on your campus - how many of you have faced the problem of trying to add on to a building like this? It is almost impossible from the point of view of architecture, difficult from a point of view of mechanical equipment, etc., whereas buildings which are in themselves somewhat less complete - buildings which perhaps in plan are such that you can add a wing or can connect to its neighbor - lend themselves more to extension through time.

It is very heartening that two of the architectural triumphs in recent history - one at Yale and one at the University of Pennsylvania - occurred with buildings which are in themselves capable of being expanded and extended. Yale's architectural building has this kind of plan, and the medical center at Penn has a kind of plan (a series of square units) which are architecturally indeterminate; that is, architecture capable of growing. The architecture of growth or change is the new architecture for college campuses.

I would like to show you slides of buildings which I think indicate the kind of harmony that can be achieved. The goal here is not identical repetition of identical parts, but the harmony between many. A supreme example in architecture was achieved at the St. Mark's Square in Venice, where over a long period of time a large number of buildings were grouped. And here is an example of the whole being more than the sum of its parts. Not only is it diverse architecture; there is not one style around the square, another of Venetian Gothic over there, and a strange Byzantine group here. The square was built by many different architects over centuries, and I doubt if it would have been more successful, if it had been possible, if the architects had built domes everywhere. Some of the materials are marble, some are brick. The whole space is organized as a whole, and many architects contributed. I hope that the great opportunity of the next 10 or 15 years in campus work will allow us to reach this kind of an achievement.

Thomas Jefferson was a very astute architect, and at the University of Virginia he made the best American statement about growth and form, about group architecture, about the possibility of a campus being complete at each stage, but continuing through time. He built a rotunda and small buildings along the lawn, with links between them. He indicated a way of linking individual buildings together. As you know, each of these pavilions has a different design. They have some common denominators of materials and of scale, but they are different. As you can see in the plan, it is capable of extension in length and also capable of extending in width, and at each point in time and space it has a sense of completeness.

The early buildings of colleges in this country (for reasons I have explained before, for technological reasons) had strong common denominators. The materials were generally the same brick or stone; the windows were generally the same because it was the most advanced technology; people walked up to certain heights; the space between buildings was limited by how far you would walk. Indeed, some of the buildings were remarkably dull. They did not in themselves have to become monuments. They contributed in their grouping to something which was meaningful as a whole.

(There follows a series of slides, showing examples of campus building.)

On the same campus is this building, with columns and certain pretensions, and directly across is this red one. This building was built by a first-rate modern architect of his time, H. H. Richardson. It is an example of its contemporary architecture, and it stands in the same group of buildings as the previous ones that I have shown you, yet it is very different in detail. Richardson did not repeat in detail the way the other buildings were built, because his technology and his architecture reflected his own time.

I will show you other examples of today where we are developing new details in architecture which will create the same kind of human interest that the old architecture achieved, but not by repetition of the old details. At one university, building with a vernacular of brick and white trim, new dormitories

and a library have been built, with old dormitories located next door. The materials are simple, and the whole group is held together by two factors, harmony of materials and harmony of scale. The buildings are composed of red and white elements which are in the same rhythm and scale as the existing dormitories.

In a small New England university, another architect used a white concrete structure and red brick in a clear arrangement of columns and beams which is capable of sitting very well next to the small Georgian buildings on American campuses. Some of you may say, "But we don't have the Georgian gentlemanly architecture. We have the Victorian monstrosities, or we have Gothic extravagances. What do we do then?" I would like to show you a group of buildings which tried successfully, in the very pictorial picturesque way, to use similar materials. In this case, concrete was used with stone to tie together the old tower and the new building. The building in the background is the old building, and the buildings in the foreground are the new buildings. Now I think another significant aspect of this particular project is the fact that the buildings not only had internal spaces that related to the towers around them, but that they related very well to the existing street. Stores were built into the dormitory group so that they merged with the city. This tendency of making university buildings meet their environs is an admirable one, and one that I see, at least, in many other colleges by having shops, restaurants, or sometimes classrooms being built into the dormitory groups.

In this project that we are designing in Delaware, there is an attempt to create a social organization, a complex pattern of social life, and to reflect this in housing plan and in architectural form. We consciously made the edge of the dormitory group irregular, with gardens and courtyards around the outside, which would relate in small scale to the small houses around them. This group of dormitories is based on an analysis of the social and psychological organization of dormitory and life. In order to have people meet, you want to have them bump into each other in unplanned casual ways. Coming out of the stairwell, into the living room, or going to the bathroom, or going to the counselor, or going to the bulletin board, these are the places where casual relationships grow. The architectural form, in this case, and the social form were united by the plan of the dormitory.

The site is being developed at the highest density for a walk-up unit, about 250 students an acre. Beyond 250 students an acre, one reaches the point where a high rise is required. We could have gone to this, but felt there were many social advantages in the grouping of low-rise buildings. It is developed in a local vernacular of brick architecture.

Here is the analysis of the exterior spaces, the central quadrangle, the entrance, the quads, private outdoor spaces in the rear, and the public spaces which are used for playing games, etc. Another view of the model showing the approach from the university up to the central quad, then moving to each of the three houses and the dining hall. This is a contemporary example of "group architecture."

Here is a group at the University of Colorado, a group of engineering labs and buildings, in which the overall organization is made initially and the individual parts are pieced together. It is an excellent example of a campus master plan which is capable of being built in segments.

I would like to show you three research buildings. These three are not only significant in that they are all outstanding architecturally, but also because they represent three different approaches to the design of research laboratories.

It is only since the turn of the century that research labs have been built. Until 1900 there were no specialized buildings built for experiments. Experiments had occurred in attics, basements, but not in a new building type. Yet today, it is probably the largest new type of construction.

This building in Philadelphia fills an open space in the campus. There was a gap between two buildings, and our assignment was to fill it with a new building. The major concern of the architecture here was harmony in scale with existing buildings next door. Here you have a view showing how it sits as a contemporary building in the midst of this assortment of styles.

A cross section explains the new building technology, the fact that we can clear span, that we can build our mechanical services so that they can be movable and flexible; the building becomes a tool for research, not an impediment to it. From that technology comes new ways of precasting, of developing details of the building which have the same kind of enrichment as the Georgian details and Gothic details had.

Another research building shows many of the qualities which I have mentioned previously about growth and form. It is a series of pavilions for research, built over time. The model indicates the incompleteness of the form, the kind of architecture which can continue to grow. Here one sees it along an existing walkway of the university, with the traditional buildings on one side and the new buildings on the other.

We are beginning to recognize some of the new problems of incompatibility. The new buildings of graduate research, etc., can be elevated high buildings, whereas in undergraduate classrooms, they can generally be walk-up buildings. Also, some workshops tend to spread out over large areas with one-story sheds. These are new campus forms.

There are many reasons why the research lab is a special problem. Unlike dormitories and classroom buildings, one cannot predict with assurance that research laboratories will be easy neighbors. Research laboratories consist of four or five special parts, and they don't all add up very neatly. And there is the possibility of expansion in the future, and flexibility and adaptability. For these reasons, I suspect that it is going to be a much harder job to relate research laboratories to existing campuses than almost any other building type.

Dormitories and classrooms are traditional elements of a university or college. Therefore, one can predict fairly well their characteristics, their sizes, the types of openings, windows, etc. Research laboratories are much less predictable. In that sense they are likely to give rise to new problems which are harder to accept in an existing situation.

In closing, I would like to show you briefly a university-related project we are doing in Philadelphia. It grows out of the role of universities and institutes of technology in research and development facilities which, in turn, play their role in the city.

(Slides of the University City Science Center, Philadelphia)

I would like to summarize, if I may, with five suggestions to college administrators and decision makers.

One, recognize the reality of the cost-quantity-quality triangle. Deal with your architect, with your programming, and with your budgets, within the reality of these three points.

Second, prepare capital budgets on at least three levels of time; a long-range plan which may be indicated by years or by a target date of enrollment, as a long-range budget; prepare a five-year budget; and prepare an annual budget for capital programming. In this way, each one of your steps can be kept in line with the long-range plan.

Third, prepare a complete program for each building, based upon three factors: needs, activities, and space allocation.

Fourth, limit the search for compatibility to perhaps only two factors. Try for harmony of materials and for harmony of scale; don't look for harmony of "style."

And the last point, and perhaps the most important, is to build and plan not for the individuals, but for the groups of buildings. Plan for groups of buildings which are linked by landscape, by courtyards, by streets, by walkways, but also by built-in interrelationships and linkages. If we continue to build, as we seem to be doing so often, individual buildings to the detriment of the whole, we will be violating the most important rule, that the whole should be more than the sum of its parts.

PLANNING FOR COLLEGE AND UNIVERSITY FACILITIES

A Seminar By  
Walter KIDDE CONSTRUCTORS, Inc.

Sheraton-East Hotel, Park Avenue and 51st Street, New York City  
Friday, November 6, 1964

DESIGNING AND BUILDING EDUCATIONAL SCIENCE AND RESEARCH FACILITIES

by  
Frank L. Whitney, President  
Walter KIDDE CONSTRUCTORS, Inc., New York City

The story has it that James Boswell once asked Samuel Johnson to name the factor that most contributed to his literary success. This eminent man of letters replied: "Plagiarism, my dear boy, plagiarism."

The story is undoubtedly legendary. But it underscores a point as important to planning science and research facilities as to writing books. What Johnson was talking about wasn't plagiarism, but an occurrence common to all forms of human endeavor where one man takes the ideas of another and adapts them to his own needs.

I know in some circles this will continue to be called "stealing." But we architects and engineers have a different phrase. In architecture it is on a higher note; it is called eclecticism. Let us call it "contributory planning."

Success in contributory planning depends upon two things. First, one must be aware of a broad range of ideas. Second, one must have the knack of picking the right idea for the immediate need.

Today, I would like to apply this concept of contributory planning to the design of university science and research buildings. I would like to do it by showing how some of the lessons we have learned as designers of research facilities for industry apply to many of the problems universities face.

And universities do have problems. This has been borne out in a number of ways. You people have indicated it yourself by your comments on the questionnaire we sent out earlier this year. To probe deeper, we sent a team of our engineers to a number of different colleges and universities. We studied recent buildings, all constructed within the past five years.

We found many impressive edifices, of course. But we also found serious drawbacks in numerous facilities, drawbacks from a functional point of view.

Here are some of the problems we encountered:

Many buildings seemed to have been designed and built with a complete disregard for the research that was to be conducted in them and for the scientists who were to work in them.

Use of materials seemed to be out of economic perspective. We found expensive granite facades in buildings that had interior walls of unfinished concrete block. This is penny-wise and pound foolish. Buildings of this kind may well establish themselves as landmarks, but those unpainted walls will eat up maintenance dollars for years to come.

We found the mechanical installations planned in such a way that it will be impossible to modify or expand the building for future needs except at a prohibitive cost.

We found problems in space layout that were bound to lead to inadequate work space and poor circulation for the people who use the facility.

In a nutshell, we found buildings that on the whole looked well, but didn't work. Buildings of this kind suffer from what I like to call The Edifice Complex. Many of them may qualify as monuments, but not to education. I do not intend to get into a discussion on architecture. We'll just swipe at it in passing. I have no quarrel with those who feel there is a need for esthetics in college architecture. I agree with it. I think that all students at this level should be exposed to this sort of cultural background. I admit, however, that it sometimes backfires. Recently I was on the Harvard campus, and I stopped a student and asked him if he knew where the Holyoke Center was. He pointed over the trees saying, "It's the monstrosity over there."

What we want and need on our campuses aren't monuments, but working, functional science and research buildings that meet the needs of our students and their teachers.

Now you may conclude from these remarks that I believe industry does everything right and universities do everything wrong. Nothing can be further from the truth. I merely say we can learn something from industry's experience. Industry has gone through a growth experience similar to the one now getting under way in the field of education.

As a company, we have a substantial background in the design and construction of industrial research facilities. I would like to extract from this experience some guidelines for you to consider.

First and most important, let's focus attention on the basic occupant of these research facilities - the scientist himself. We all know an inordinate amount of time is being devoted to discovering and satisfying the needs of the scientific researcher today. This is true in industry, in government and in universities. Be he student, professor or corporate employee, by many he is considered a peculiar individual whose needs differ from those of the average man, average like you and me.

I remember returning from Princeton one day with a well-known opinion taker (or maker, as the case may be) who had just completed a survey that pinpointed the likes and dislikes of the scientific researcher. Here's what the pollster found. He found out that the average male scientist likes football games, theaters, good public schools for his kids, pleasant communities to live in and outdoor sports.

I suspect that if we went into the subject even deeper, he would have found that scientists like girls, too.

The researcher isn't quite as different as we make him out to be. He likes to work in a building that has a certain amount of appeal. His tastes are the same as ours. As one of our top designers observed, the researcher has it made. He wants and is getting the working conditions we all want. In many cases his needs are unusual. I suspect that universities today must also, to some degree, meet this competitive challenge to retain the scientific mind. A successful building has got to successfully satisfy these needs.

In the past, industry has been very sensitive to this need. There has been considerable competition for the available top scientific people, competition both from other industry people and universities. Many industries have felt they could not offer the same program challenge which one might find within the university, nor could they match the intellectual challenge generally associated with academic life. So they countered by offering elaborate physical environment together with other incentives including, of course, attractive salary programs.

Every successful industrial research laboratory I know about began by opening the doors of communication between the designer, who must plan the building, and the scientist, who must use it.

I can't emphasize this strongly enough. I assure you we designers and builders have no trouble meeting with planning committees, trustees and donors, most of whom have preconceived ideas about what the building should look like. But we have a great deal of trouble trying to get together with the people who will use the building throughout their studying or teaching career.

Now I'm not talking about casual conversations with these individuals, I'm not referring to a cursory cook's tour of the campus. I'm talking about hard, probing discussions where the designer can gather their desires and basic needs.

The format we prefer for these discussions is well known to university people because it stems from a teaching device used in many advanced educational programs. They're called seminars. For mutual exchange of information, learning and problem-solving, I don't know of a better technique.

This is a two-way street. We as designers ask the ultimate users of the facility to tell us what they hope to accomplish within this facility. We then develop for them the impact of their desires in terms of economics and design. Our job on these seminars is to put these costs into their proper perspective. We point out, for example, that far too frequently many days and a great deal of conversation are spent determining the material for exterior walls, based on material costs, when in the final analysis the difference between the cheapest and the best is in many cases only about \$10,000. This is a very small percentage of the cost of an industrial laboratory. Again, one of our engineers might get into a conversation with the researchers and ask what kind of a diversity factor they want on the fume hoods. They often reply that they want a 100% factor, not knowing that they just spent \$70,000. One time I was using this example and it backfired. A scientist immediately interrupted me and asked how much it would cost to get a 100% factor in his new laboratory. I told him I thought it would cost about \$50,000. He slammed his fist on the chair and said it's worth it. He went on to say he had just recently lost an experiment because the ventilation had been inadequate to handle a peak lab load. Considerable discussion on costs then developed over a period of several days. In the final analysis he won his case and put in a 100% factor and has never been sorry. The point is that the decision was arrived at on the basis of all the facts available.

So when you plan your next facility, start with a seminar between the people who will use it and the people who will plan and build it. By doing so, you will take an important first step toward getting a building in which as much attention is paid to its "guts" as well as to its facade. You will make a major contribution toward attaining a facility in which space layout, mechanical installations and electrical distribution are integrated with total design.

These "guts" are important. (Point to chart.) Our Estimating Department made a cost analysis of industrial research facilities. I think you will find the figures revealing. They show that in the average laboratory building which combines all types of research, mechanical installations account for 35.7 percent of total costs, and electrical systems account for 14.6 percent of costs. In other words, more than half the costs of the building go into the mechanical and electrical systems. These figures exclude furniture and landscaping.

This is an average. In certain types of labs where wet, or chemical, research is conducted, mechanical installations zoom as high as 44 percent of total costs. In electronics labs, mechanical costs come down, but electrical costs go up to over 21 percent of total costs.

These figures show that ten years ago, electrical and mechanical systems accounted for less than 40 percent of the total cost of a facility. Today, they account for more than half, and the rise has been sharp in the past eight years.

In 1955, mechanical and electrical considerations represented 38 percent of total costs; in 1957, 42.5 percent; in 1961, 47.5 and in 1963 they rose to 54.5 percent.

Why this sudden rise? Mainly because of increasing emphasis on close environmental controls. This is especially true in research facilities, where we seek not only better environments for human comfort, but also more closely controlled environments for experimental work. Environmental controls go way beyond conditioned air and humidity control. They also pertain to the close control of sound, light, vibration and dust.

Despite this, if you ask any ten owners of research facilities - in or out of industry - how to cut building costs, nine of them will undoubtedly suggest the substitution of cheaper wall materials. Not enough recognize that a slight alteration in air conditioning requirements may save twice as much as deglamorizing the walls. Unfortunately, this obsession with wall materials consumes about 98 percent of the discussion for many new facilities and only about two percent of total costs.

In our investigation of the Newark College facilities, it has become apparent that air conditioning has come to university campuses and is here to stay. Newer facilities are either building for air conditioning or providing for future installation. This same trend has happened in industry over the past 12 years. In 1955 we asked our client whether he intended to air condition his office. Today we ask him what parts of his plant he need not consider air conditioning. We call it air conditioning, but I believe a better understanding of what is happening would be if we termed it as environmental control. The final analysis is it has little to do with pumping cold air into the building on hot days. We no longer try to analyze air conditioning needs in terms of annual degree days. I guess it is pretty much like taking a bath at Christmas. We do it whether we need it or not. There is one important point about the introduction of climate control, or environmental control, and that is there is no accepted halfway point. People can put up with a lot of discomfort if there is no conditioning available, but the moment you introduce conditioning into your facility, you must go all the way in order to keep people satisfied. This is one thing we have learned in industry and I am sure you will learn it, if you have not already, in the design of your science facilities. By all the way, we mean the ability to completely control the climate in any part of your building at any time, regardless of internal or external load.

With this growing importance of mechanical and electrical systems, a new problem enters the picture. The problem is flexibility. A research building should be flexible so it can be expanded or converted to meet new scientific needs. Complex mechanical and electrical systems - ducts and pipe chases and power supplies - impose restrictions on flexibility unless the building is carefully planned. For this reason, we place heavy emphasis on modular design.

Few phrases cause more confusion than "modular design." Yet in designing certain kinds of industrial facilities, and research laboratories in particular, modular planning can be the key to success.

A module is the smallest unit of repetitive work space that includes all necessary mechanical and electrical services. A laboratory designed on a modular plan permits maximum flexibility. The designer can develop a basic laboratory without concern for the ultimate layout. And he can make suitable provision for changes.

Once the module is created, a variety of floor layouts can be worked out or altered during the design stage. The modules can be shifted about somewhat like building blocks until a satisfactory arrangement is obtained. A laboratory that isn't designed on a module basis limits flexibility and makes changes costly and difficult, if not impossible.

Surveys of various organizations have failed to provide any hard and fast rules for determining optimum size or population of modules. The depth of the lab depends upon the linear feet of bench per researcher. The width, which is more difficult to determine, is governed by whether the lab is wet or dry, the number of people who occupy the unit, portable equipment and other technical considerations. Experience indicates that the optimum width in dry laboratories is 5 to 6 feet and in wet type, 10 to 11 feet.

In planning the module, mechanical and electrical considerations are critical. The other elements that define the module, such as window mullions or ceiling panels, are available in virtually any measure. They can be tailored to individual requirements and can be altered at a later date. But mechanical and electrical services, as we have already pointed out, are far less flexible. They can be redesigned only at tremendous time and expense.

The most crucial consideration in this environmental control we have been talking about is the need to obtain the maximum flexibility. This flexibility is not only for the future additions, but is the day-to-day, hour-to-hour flexibility in terms of demand.

The critical air loads in laboratory buildings are invariably those of laboratory rooms. The system must remove heat released from laboratory equipment, provide fresh air for fume hoods and other exhausts, maintain strict temperature and humidities for both comfort and controlled experiments and, at times, exhaust 100 percent fresh air to prevent buildup of contaminants. The system must do this consistently under a variety of constantly changing loads.

Sometimes unusual environmental conditions require special local systems that operate and are controlled independently of the central system. In fact, this whole question of central vs. unit air conditioning is wide open to discussion.

In central systems, the refrigerant is piped, like steam, from building to building. In a unit system, each building has its own independent air conditioning system. Where possible, the unit system is preferable because it eliminates tunnels for piping and permits greater flexibility. But the decision depends upon individual requirements.

This analysis of central vs. unit control is extremely important in many universities who are now embarking on air conditioning programs within their new, as well as existing, structures. The addition of chiller capacity within a central boiler house and distribution through a tunnel through the various buildings is not necessarily economical or desirable. The use of individual units, although they may add to maintenance cost, can in the long run be the most economical in terms of growth and change. This is a subject that requires careful analysis.

Illumination is also important and frequently overlooked. In fact, few aspects of laboratory design bear more directly on working environment than the lighting system. Good engineering demands an electrical system that satisfies the function of the laboratory.

Present lighting standards require 100 footcandles minimum for most labs. Fluorescent lighting is considered the most suitable light source for this application.

Several design considerations are involved in the development of a maximum comfort lighting system.

Control of direct glare from fixtures and windows is important. The upper parts of windows should be shielded in some manner because this is usually the brightest area. Venetian blinds, shades, diffusing glass serve as suitable screens.

Reflected glare is annoying. It can be reduced to a minimum by eliminating reflective surfaces. Dull or matte finishes are best for laboratory desks and furniture. Laboratories using glassware for experiment and research will find that properly shielded lighting fixtures or lighting fixtures of low brightness characteristics in the 0-45 degree reflected glare zone are most desirable. The important thing to you is that you know where and why you are spending the money available.

There are yardsticks that help determine planning efficiency. They have been developed for industrial research facilities, but in keeping with our theme of contributory planning, they apply with equal force to university facilities, too.

About the best yardstick we've developed so far is a ratio, the ratio of assignable area to gross.

Assignable space is that portion of the structure in which people work. Gross space is the total area of the building. Assignable space excludes all service areas, such as corridors, washrooms, stairwells, storerooms, lobby, cafeteria and auditorium. It also excludes mechanical equipment rooms. This is particularly important on any analysis which is providing heat from an outside source.

About half of a facility's gross area should be assignable. If the percentage of assignable area is 60 or more, then it's likely there is inadequate provision for services, insufficient corridors, unsuitable amenities. The reverse is true if the percentage falls under 50. Here it's possible to question the usefulness of unassignable space. The facility may be too luxurious.

Another rule of thumb in laboratory design, the amount of space required per person should not exceed 400 square feet including all personnel and all space, nor should it go under 200 square feet.

Another facet of cost determination relates to the height and number of stories.

One-story structures require maximum ground area, but are most economical for building construction. Mechanical and electrical service distribution, however, is extended and expensive. Circulation and communication become difficult somewhere between 30,000 and 50,000 square feet, depending on the organization of the laboratories.

Two-story structures increase the cost of building construction. In addition to heavier footings and framing to carry floor loads, they require elevators to move supplies and stairs to move people. Also, the expansion potential of a two-story building is restricted as compared to a one-story structure.

But there comes a point where a two-story building may be more economical. This depends upon savings that can be realized in the distribution of mechanical and electrical services. Such savings must offset the higher structural and other costs in a two-story building. Land costs must be figured, too. Where land is at a premium because of high acquisition costs, existing buildings, or site configurations, then the two-story may prove more economical than the one-story structure.

Multistory buildings are most satisfactory for extremely large installations. However, expansion of multistory buildings is difficult except in large increments. There is one important point here, and that is most growth - both in industry and, I am sure, in colleges - does not come in large units or increments. Consequently, the need to expand the existing facility and to do it logically is a very important step in terms of planning. A rule of thumb here is that generally a growth situation in a laboratory occurs in increments of no more than  $1/3$ , that is, new facilities are about  $1/3$  the existing facility. In general, this reflects the overcrowding of the existing facility before the expansion can be justified.

The cost of constructing a laboratory, including engineering, ordinarily ranges from \$25 to \$50 per square foot or more, including land, site development, equipment and furnishings. This wide variation illustrates the difficulty of discussing laboratory costs except in very specific terms. For instance, the cost of foundations and first-floor slabs usually ranges from \$1.00 to \$1.25 per square foot. But if subsoil conditions require the driving of piles, these costs can soar to \$3 per foot.

Much the same thing holds true for the cost of the second-floor slab and its structural frame. Here, the cost can vary from \$2.50 to \$3.50 per square foot. The difference lies in whether the slab requires under-floor duct work. If it does, the floor must be poured in two lifts rather than one.

Roofing, exterior walls, interior partitions and finishes are all subject to some variations, as is the shape of the building.

An equally wide range of options pertains to the mechanical and electrical aspects of the laboratory. These considerations are both numerous and inter-related. For example, the type of lighting and heating system selected will influence air conditioning requirements. Or the type of fire protection system will significantly effect plumbing and piping.

Partly because of this, air conditioning and ventilating costs vary from \$2.50 to \$10.00 per square foot.

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The impact of strong economic discipline can't be emphasized too much. Regarding this, Pier Nervi, the distinguished Italian engineer and designer had this to say:

"In my long life as a designer and builder, I have seldom found clients capable of stating their problem clearly, of choosing the designer and his design wisely, or of accepting the responsibility for a daring structural or aesthetic solution. Even if both clients and designers were lacking in taste, they would achieve better results, perhaps unknowingly, by following sound economic criteria."

In closing, let me say this: Good design is an intelligent compromise of all factors, including contributory planning. The important thing to remember is not to place too much weight on a single factor. Often, for example, function has been sacrificed for dramatic visual treatment. Or, conversely, aesthetic values are needlessly sacrificed in the mistaken belief that an austere facility is also a functional one.

What we strive for are facilities that aesthetically and honestly express their intended usage and function. This is the best definition of architecture I know.

PLANNING FOR COLLEGE AND UNIVERSITY FACILITIES

A Seminar By  
Walter KIDDE CONSTRUCTORS, Inc.

Sheraton-East Hotel, Park Avenue and 51st Street, New York City  
Friday, November 6, 1964

SUMMARY

By  
Mr. Ronald W. Haase - Architectural Associate  
Educational Facilities Laboratories, Inc., New York City

I am going to take a few more minutes of your time to summarize what we have been discussing today, beginning early this morning with the emphasis on the importance of long-range planning in university facilities and the importance of an early start in planning those facilities. It generally takes four years and upwards before they're finally realized in the form of completed structures. The decided importance of good programming before design begins was emphasized. I think it is true that no matter how good the building, it is at its best when it is a reflection of a good program.

One way to get a good background for planning new facilities is to hear what other people are doing for a similar project, to see pictures or photographs and to examine them to see how they fit your needs or how they may be related to your own needs. A better idea yet is to go out and look at facilities that are in the same category as yours and actually see them on the job. Go out so you can kick it, so you can find out what it is really like. But always remember in doing this (and I think it is a point worth remembering in your travels around the country) that you must find out why a building is that way. What were the program needs that are reflected in the building that make it significant? Don't take things strictly on their face value, but always observe and inquire as to what the needs were and how the building fulfilled those needs.

I think we found out today that the Federal Government, with many of its programs, is doing a good deal to offset the apparent deficit in what colleges and universities need for facilities and what they are actually spending at the present time. There seems to be regrettable evidence that many of the project funds are being dispersed on a head-count basis rather than on a more isolated support basis where projects can be developed in depth. I think the Ford Foundation recognized this some time ago and discontinued any efforts that they were making toward sprinkling funds of the Foundation around the country. It has taken on a policy of applying grants and funds in depth to specific universities who have indicated worthwhile project goals. For example, a \$25 million grant was made to N.Y.U. recently. There seems to be a strange paradox between two concepts of the Federal Government when it comes to monies for our own country (where they feel that politically it is wise to sprinkle them around so as not to raise any dander anywhere) or for foreign aid. They are always aware that supplying funds in depth to other nations is a desirable thing.

I think one of the things which may not have been brought up today is the fact that all too often we assume that if we can build a new building, we can solve our needs and our space difficulties in carrying on our projected programs. A report by a gentleman from Michigan State University was referred to this morning by Dr. Hallenbeck. He conducted a survey of 60 midwestern colleges in which he determined that each and every one of them, on an average, could increase their enrollments by 50% without putting one cent into new facilities. This reflected, according to him, a \$15 million savings in capital outlay for the colleges involved. The really shocking aspect of this survey to me is that he is talking about increasing the students' station utilization a measly 13% (from an average of 22% to a still low average of 35%) to achieve this increase in enrollment of 50%. Examination of space utilization prior to planning the facility is a very important step in your planning program.

Related to this are the things that Mr. Geddes mentioned regarding combining old and new structures on our campus. I think we have a responsibility and a requirement to save those facilities on our campus which still serve a useful purpose or may be converted to do so. There is an increasing awareness of the need for preserving what we now have in this country, recognizing the staggering building needs ahead of us and developing a bit of respect for historic preservation. In this regard, the city of New York in 1951 undertook to make a survey of which buildings within the city were worth saving and which they could earmark for possible historic preservation. It took the agency that was in charge of surveying the city four years to determine that 250 structures within the city were worth saving, but by the time they completed the report, 20% of them had been torn down. I think there is a great need to respect what exists while planning to build what is needed as new.

A rule of thumb which may be possible to apply in saving that which exists: look at the buildings on your campus - if they are where they belong, if they are structurally sound, and if they possess some natural charm regardless of what style, these buildings can easily be knit into the fabric of the total campus plan. If you're in New York City for more than today, I urge you to take a short trip over to Brooklyn and look at what one urban campus has done with real estate. Long Island University in Brooklyn has recognized the potential in existing real estate (largely due to the fact that William Zeckendorf is on the Board of Trustees of the University) and has done some fantastic things with existing property. They took the old Brooklyn Paramount Theater, for one thing, and converted it into a multipurpose teaching center by converting the orchestra portion of the theater into a basketball gymnasium and the upper balconies into science lecture spaces. They have taken a high ceilinged (I think four stories high) old lobby and reconverted it into one of the most charming, delightful student unions I have seen around the country. There is potential in this type of design consideration not only in the savings of money, but also in the savings of time. At Long Island University it would have cost them over \$3 million to duplicate the facilities that they created out of this old structure, and they did it at the cost of \$600,000.

Mr. Geddes touched on some of the important aesthetic aspects of campus planning: the idea that it is not only the buildings themselves that are important to the total campus environment, but also the spaces between them - and their cohesion - which sets the entire tone of the campus. Another architect involved in educational planning in Texas, Mr. William Caudill, has put it in another way when he speaks of space. He says that the most significant space in campus architecture is the outdoor space. It is only when you define outdoor space between the structures on your campus that you really begin to create a unifying environment.

This same environment can have implications to the students on the campus. A survey that was done in 1960 by the Western Interstate Commission on Higher Education determined a priority of conditions on a campus which most effected the finished product that came out of the university. They found that the most significant influence upon his character, his attitude - the complete person that came out of the university - was first and foremost the environment in which he has been placed for the last several years and the social contacts he had made while he was on the campus. Third down the list was the actual course content of the curriculum. It was also observed that in speaking of environment on the campus, there seems to be an inverse ratio between the number of friendship groups that develop on the campus and the size of the social gathering spaces that exist on the campus. Large informal and impersonal spaces are found to be socially negative. If we can begin to create informal, small and intimate spaces - whether they be in our cafeterias, in our unions, in our dormitories or even in our libraries - these can foster an environment which is more conducive to the well-being of the students than large impersonal spaces.

There are trends in campus planning which I think bear mentioning and restating after today's session. Some of them were touched on briefly and others in depth. I think there is definitely a trend, particularly on the part of small campuses and in the larger campuses that are realizing that their bigness must be broken down into more comprehensible units, to multidisciplinary space. We begin to think not in terms of the physics building, the chemistry building, the mathematics building or the geography building, but in terms of multidisciplinary spaces. The architects of S.I.U. are designing laboratory equipment

which consists of component parts which can be put together in various combinations to serve the particular disciplines that may be using the space that particular semester so that with enrollment changes and as emphasis on a particular science changes over the years, the laboratories themselves can adapt to this change.

Other universities are expanding this concept of multidisciplinary space as they begin to group their facilities by function, rather than by discipline, throughout their campuses. An example is the University of Illinois in Chicago where a core of large-group instructional spaces is being provided. High-density, high-activity classroom and lecture spaces are concentrated on the center of the campus, and located on the perimeter are the low-activity, less-trafficked spaces. The purpose of grouping space by function is that any department within the campus structure can use the same facilities and thereby gain a high rate of utilization in spaces. The University of Cincinnati is doing the same thing vertically. They're stacking on the lower two or three floors (of a continuous chain of structures) the high-density, high-use spaces (the classroom, the large-group instructional area, the auditorium and cafeterias). Then on high-rise structures at appropriate points along this continuous ribbon of high-density spaces, they are locating the low-density, low-use spaces. The goal of these campuses and buildings which I have just mentioned is to avoid idle space, to make the best use of the space which the university is building.

I think there definitely is more emphasis (and I am surprised that it wasn't pointed out today) on the equipment which goes into buildings on our campuses today. This is true in education at all levels, from higher education down to pre-school, day-care centers. There is increasing emphasis on electronic devices and less upon the plant in which they are housed. There is great emphasis on educational television, electronic study centers, computers both in the laboratory and in the library, and multiscreen, rear-view, projection systems in audio-visual auditoriums.

A suggestion that could be made for an additional seminar is that an examination be made of what the trends are in the design and use of this new equipment and the space which encloses it. Education is taking the lead of industry in this regard. Industry for the past several decades has emphasized the equipment which goes into a space while trying to make the space itself as flexible as possible.

You can begin to envision the campuses of the future, the 1984 type of campus, where this type of environment will be created. Regardless of our personal feelings, it is inevitable. We are tending to be much more mechanized, much more electronically minded, and it is obviously going to be reflected in our educational plants in the future. Perhaps a new faculty member of a university in 20 or 25 years from now may look at the campus in which he is working and become suddenly concerned with the amount of money that is being put into the equipment in the space in which he is teaching. Each student with his own electronic study carrel. Each classroom with its own remote controlled, multi-screen projection system. Each department with its own computerized information retrieval system. I can imagine that this new faculty member will look at it all, scratch his head and while lying restlessly that evening, suddenly come up with a new and startling idea. He will rush into his dean's office in the morning and say, "Look, instead of spending all this money in movable walls and electronic consoles and automated response systems, why don't we just divide the student body up into groups of 25 to 30, put each in a small room with a live Ph.D. and see how it works? I don't know what the faculty would think of it, but it's worth trying."

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In conclusion, I would like to thank Walter Kidde Constructors for putting on this seminar. They have realized a great need of communication between the agencies that are planning educational facilities. I want to remind you before you leave to fill out the questionnaire, and there is also available for you a brochure which Walter Kidde Constructors have put together on industrial research which contains some of the concepts that Mr. Whitney was speaking of

1672U

before. Modular construction of laboratories is covered in this document. I would like to thank Mr. Whitney for having the foresight to put on such a program, Mr. DeAngelis, Vice President who worked with him on this, and their staff - particularly Frank Repp, who is in charge of their instructional programs of the sort - and the gentleman who is responsible largely for organizing and putting together this show, Mr. Bill Green. Thank you.

Campus Planning Committee  
January 6, 1965  
Attachment No. 562  
Item 2935

## MUSEUM

At 4 p.m. on January 5, 1965, a meeting was held in the Round Room of the Museum. The Museum was represented by Mr. Mark Hailey and Dr. Earl Green.

The Associated Architects & Engineers were represented by Mr. Hoyse McMurtry, Mr. Bob Messersmith and Mr. Howard Schmidt.

Members of the CPC present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. In addition, Mr. John G. Taylor, Mr. R. L. Mason and Mr. O. R. Downing were present.

The Chairman reported that the purpose of the meeting was to continue the study of the proposal presented to the Board of Directors of the College at the last meeting in keeping with the action taken by the Board.

### A. Parking

The CPC had expressed apprehensions that the parking in front of the Museum would detract from the overall appearance, with the possibility that it could look somewhat like a shopping center.

The architects explained that they had done the study for parking in front of the Museum and arranged it in connection with the single entrance and exit, which seems to be common to most all museums.

If the parking were moved to the east or west side, it possibly could block expansion in the future.

The Museum group had requested capacity in front for 250 automobiles.

Mr. Hailey mentioned that the Museum group had prevented the land across the street to the north from becoming zoned to permit a drive-in. However, a C-1 zoning was granted. He pointed out that it might be possible to have a not too desirable type of operation across from the Museum and that it could possibly effect the desirable distance from the street. He also said that cars would be parked across the street, and we would be looking at someone else's cars even if there were no cars in front of the Museum.

### B. Industrial Unit

The first unit will provide facilities to accommodate only the old cotton gin, and the rest of the Industrial Unit would be added around it at a later time. It is the first item of priority for development, and various thoughts were expressed on the location, ingress and egress, parking, etc. It was felt that access to the unit would probably have to be temporary until additional units were built and permanent roads could be developed.

The location of the Industrial Unit would establish the distance of the Museum proper from Fourth Street, and a great deal of thought was devoted to the distance that the main unit should be from Fourth Street.

### C. Site

After a very great deal of discussion, it was agreed that the location of the cotton gin doesn't have to be pinpointed at the moment, that it could be moved a bit later, and that the overall plan should be presented and followed as closely as feasible. It will be some years before the next unit is constructed.

The architects said that the master plan could be accommodated on the 15-acre site which had been authorized by the Board of Directors.

D. Agreement

It was agreed to recommend that the front of the main Museum unit be 240 feet from the property line on Fourth Street and 500 feet from the curb of Indiana extended on the west.

It was the consensus that it would be well to point out that the small unit for the cotton gin would seem very remote and a bit lost in the area until other units can be constructed. However, it was agreed by all that the cotton gin must be placed as logically as possible in the master plan.

Dr. Green said that he is working up a brochure for the cotton ginners to use in the fund raising, and that he would need the information approved by the Board from the architects in order to present it on January 15, 1965.

It was agreed that there will be additional time for study of the remainder of the questions.

The architects were told that the Board of Directors has authorized the preparation of a cut-away model as per plans presented to the Board of Directors for the Museum unit proper.

It was agreed that the next meeting on the interior of the Museum proper will be instigated by the architects when they are ready and need some help.

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The meeting adjourned at 6:25 p.m.

1674

Campus Planning Committee  
January 6, 1965  
Attachment No. 563  
Item 2937-B

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

Office of the Vice President  
for Business Affairs

January 6, 1965

Parking

A meeting was held at 9:30 a.m. on January 5, 1965. Those present were Dean Lewis N. Jones, Chief Bill Daniels, Mr. Mike Stinson and M. L. Pennington.

The action taken by the Board of Directors at their last meeting was discussed in detail. Dean Jones, Chief Daniels and Mr. Stinson were asked to prepare the detailed plans as requested by the Board of Directors.

Various thoughts and suggestions to present the required information were discussed, and it was thought that perhaps a film showing some of the trouble spots and conditions would be helpful to the Board of Directors.

It was agreed that information from other colleges on ports of entry, parking spaces provided, systems used, whether storage garages were used, etc., would be secured, and that Chief Daniels would get the letters out at his first opportunity.

It was pointed out that finals and registration will interfere with the study for a good bit of the time between now and February 13. While it was agreed that an attempt will be made to provide the information during the week preceding the Board meeting, it might not be possible to have the study ready in time for the meeting. If not, it might have to be presented at the April 10, 1965, meeting.

M. L. Pennington  
Vice President for  
Business Affairs

MLP:b

Campus Planning Committee  
January 6, 1965  
Attachment No. 564  
Item 2937-C

Box 143  
Doak Hall  
October 19, 1964

Miss Susan Wood, President  
Women's Residence Council  
Box 205  
Hulen Hall

Dear Susan:

The Doak Hall Legislature would like to present some suggestions for your consideration. The hall residents are very much concerned about the problems that have resulted from the lack of parking facilities surrounding the dormitory.

The fact that Doak Hall is the only dormitory on our campus that is not accessible by car on any side presents various inconveniences and dangerous situations for the hall residents. The architecture and landscape of Doak Hall are picturesque, but very people can view the entrance due to the lack of parking facilities in the front. Many parents have never seen the front of Doak. Numerous parents cannot locate the dorm since Doak is virtually isolated from the rest of the campus.

The security of the residents also has been endangered because of this parking problem. Since the beginning of the fall term, several male students have entered the west door thinking that it was the main entrance. Moreover, the safety of a resident is jeopardized on occasion when it becomes necessary for her to park her car at the southernmost end of the Drane-Horn parking lot and then to walk alone to Doak at night.

It is for these reasons that the Doak Hall Legislature submits the following suggestions for your consideration:

1. Parking facilities could be made available by cutting in 20 feet from the street in front of Doak. This lot could extend the length of Doak Hall terminating at the boundaries of Weeks Hall and the Home Economics Building. We realize that four of the trees would be involved, but these could be preserved by building islands around them. The proposed parking lot would not be incongruous with the campus landscape since all the other women's dorms have parking lots in front. This suggestion would be the most advantageous because the parents and callers would use the beautiful front entrance of Doak.
2. Another suggestion would be to add footage to the service drive on the west side of Doak by removing 18 feet and five inches of the grass to the larger sidewalk. This would facilitate parking space without interfering with the present service drive. Islands also could be built around these trees.
3. Other parking facilities could be provided through construction of a parking lot to be extended west from the north end of the service drive to the street. Traffic could move one way through the service drive and the proposed parking lot. Since the grass has already been destroyed by the Bookstore construction, this would not affect the appearance of the landscape.

1675A

4. A further suggestion would be to change the wording on the signs in the service drive to allow parking during the hours when the Bookstore is not open. This would be more economical since the service drive would be performing a functional use at all hours.
5. Finally, parking space could be provided by constructing a crescent-shaped parking lot behind Doak Hall. This parking lot should be extended only for a maximum of 72 feet in order that the landscape might not be damaged.

We hope that you will carefully consider these suggestions in light of the problems we have stated. A combination of the first and fourth suggestions would be the most desirable; but an enactment of any of these suggestions would alleviate some of our problems. Thank you for your consideration in this matter.

Sincerely,

/s/ Sujane West

Sujane West, Chairman  
Doak Hall Parking Facilities Committee

pf

cc: Mrs. Dorothy T. Garner  
Coordinator, Women's Residence Halls

\*Proposed April 25, 1964

WAGE RATE COMPARISONS

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Air Compressor Oper.	\$1.25				\$1.25	
Air Tool Operator	1.25		\$1.50	\$1.775	1.25	\$1.775
Asbestos Worker		\$4.20	2.25	4.20		4.20
Asbestos Worker Leader Man		3.34				
Asbestos Helper I		1.75				
Asbestos Helper II		1.25				
Asbestos Workers						
Improvers:						
1st Year		2.39				
2nd Year		2.68				
3rd Year		2.97				
4th Year		3.34				
Boilermaker		4.10		4.10		4.10
Boilermakers-helpers		3.85				
Bricklayer Layout Man		4.25				
Bricklayer	2.25		2.50	4.25	1.50	4.20
Bricklayer (within 25-mile radius of Lubbock)		4.20				
Bricklayer (beyond 25-mile radius)		4.25				
Bulldozer Operator	1.50				1.50	
Carpenter	2.25	3.25	2.25	3.30	1.50	3.25
Carpenter, Leader Man			3.00			
Carpenter, Rough			2.00			
Carpenter Helper I			1.50			
Carpenter Helper II			1.25			
Cement Finisher	1.50				1.50	2.75
Cement Mason		2.625	1.75	2.75		
Cement Mason, Leader Man		2.625				
Cement Mason, Helper I			1.50			
Cement Mason, Helper II			1.25			
Common Laborer			1.25	1.50		1.55

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Crane Operator	\$1.50				\$1.50	
Dragline Operator	1.50				1.50	
Electricians	2.25	\$3.85	\$2.25	\$3.85	1.50	\$3.85
Electrician, Layout Man					3.50	
Electrician Helper I					1.50	
Electrician Helper II					1.25	
Electrician Cable Splicers		3.85				
Electrician Lineman		3.85				
Electrician Groundman						
1st Class		2.70				
Electrician Groundman						
2nd Class		2.20				
Electrician Operator		2.95				
Elevator Mech.		3.54				
Elevator Mech. Helper		2.48				
Fine Grader	1.25				1.25	
Soft Floor Layers		3.00				3.125
Floorman				3.00		
Floorman (soft)			2.00			
Layout Man			2.75			
Helper I			1.50			
Helper II			1.25			
Glazier	2.25	2.50	1.75	2.50	1.50	2.50
Leader Man			2.50			
Helper I			1.50			
Helper II			1.25			
Ironworkers	1.50		2.50	3.625	1.50	3.625
Beyond 30 miles						3.75
Layout Man			3.50			
Helper I			1.75			
Helper II			1.25			
Ironmakers						
Structural		3.625				

1676B

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Ironmakers (continued)						
Ornamental		\$3.625				
Reinforcing		3.625				
30 miles or more from Lubbock for all		3.75				
Joint Worker	\$1.25				\$1.25	
Laborer	1.00				1.00	
Air Tool Operator; Jackhammer, vibrator		1.775				
Carpenters tenders		1.50				
Concrete Pourers		1.50				
Laborers, unskilled		1.50				
Lathers tenders		1.50				
Mason tenders		1.50				
Mortar mixers		1.775				
Pipelayers (concrete & clay)		1.775				
Plasterers tenders		1.50				
Lathers		3.75	\$2.50	\$3.75		\$3.75
Leader Man			3.50			
Helper I			1.50			
Helper II			1.25			
Marble Setter			2.00	3.50		3.25
Layout Man			3.50			
Helper I			1.50			
Helper II			1.25			
Mason Tender				1.50		1.55
Mechanic	1.50				1.50	
Mortar Mixers			1.50	1.775		1.775
Helper I			1.25			
Motor Grade Operator	1.25				1.25	
Painter	1.50				1.50	
Brush		3.125	2.00	3.125		3.125
Spray		3.775	2.00	3.775		3.775
Brush, Struc. Steel						3.25

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Painter (continued)						
Spray, Struc. Steel						\$3.90
Brush, Leader Man			\$2.75			
Spray, Helper I			1.50			
Spray, Helper II			1.25			
Operators						
Light Equipment						3.575
Heavy Equipment						3.975
Pipe Layer	\$1.25				\$1.25	
Plasterers	1.50	3.75	2.00	\$4.00	1.50	3.5625
Tenders				1.50		1.50
Plasterer, Finish Man			3.75			
Helper I			1.50			
Helper II			1.25			
Plumber	1.50	3.85	2.25	3.95	1.50	
Plumbers & Steamfitters						3.85
Plumber, Layout Man			3.80			
Helper I			1.75			
Helper II			1.25			
Powderman	1.50				1.50	
Power Shovel or Backhoe Operator	1.25				1.25	
Roofers			1.75	2.40		2.65
Straw Boss			2.25			
Helper I			1.50			
Helper II			1.25			
Sheet Metal Worker	1.50		2.00	3.25	1.50	4.10
Layout Man			2.50			
Helper I			1.50			
Helper II			1.25			
Sprinkler Fitters		4.075				
Steamfitters		3.85	2.25	3.95		
Layout Man			3.80			

1676D

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Steamfitters (continued)						
Helper I			\$1.75			
Helper II			1.25			
Stonemason			2.75	\$4.25		\$4.20
Layout Man			4.20			
Helper I			1.75			
Helper II			1.25			
Terrazzo Workers		\$3.25	2.50	3.25		3.25
Layout Man			3.125			
Helper I			1.50			
Helper II			1.25			
Tile Setters		3.25	2.50	3.25		3.50
Layout Man			3.125			
Helper I			1.50			
Helper II			1.25			
Tractor Operator	\$1.25				\$1.25	
Truck Driver	1.25		1.25		1.25	
Up to 1 1/2 tons		1.50		1.50		
Under 3 tons						2.275
Over 1 1/2 tons				1.75		
1 1/2 to 3 tons		1.75				
Under 5 tons						2.525
5 tons and over						2.775
Watchman	1.00				1.00	
Welder	1.50				1.50	
Operating Engineer						
(Light Equipment)			1.80	2.95		
Heavy Equipment			2.05	3.20		
Stonemasons						
Within 25 miles of Lubbock		4.20				
Beyond 25 miles of Lubbock		4.25				

1676E

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Roofers						
Composition, Waterproofers		\$2.25				
Slate & Tile		2.40				
Oiler		2.70				
Greaser & truck crane driver		2.85				
Blade graders, towed		2.95				
Mixer, less than 14 cu. ft.		2.95				
Scraper, 3 cu. yds. or less		2.95				
Single compressor (over 105)		2.95				
Welding machine (2 to 6)		2.95				
Loaders, 1/2 yd. or less		2.95				
Tractor attached to trencher		2.95				
Flexplane		2.95				
Form grader		2.95				
Hoist, single drum		2.95				
Screening or crushing plant		2.95				
Building elevator		2.95				
Air tugger		2.95				
Heavy duty mechanics		3.20				
Blade Graders (self propelled)		3.20				
Derricks, all type		3.20				
Euclid		3.20				
Dragline		3.20				
All type power cranes		3.20				
Cableways		3.20				
Backhoes		3.20				
Scoopmobile		3.20				
Power hoists, two drums or more		3.20				
Clamshells		3.20				
Mixermobile		3.20				
All dozers and cats		3.20				
Carryalls		3.20				
Locomotives		3.20				

1676F

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Winch truck, when winch is in use		\$3.20				
Mixers, 14 cu. ft. or over		3.20				
Paving mixers, all sizes		3.20				
Pile drivers		3.20				
Scrapers, over 3 cu. yd.		3.20				
Trenching machines		3.20				
Foundation boring machines		3.20				
Gas or diesel welding mach. 7 to 12, one man		3.20				
Hoists on stacks or chimneys		3.20				
Loaders over 1/2 cu. yd.		3.20				
Pumps, two or more		3.20				
Shovels		3.20				
Pumpcrete machine		3.20				
<u>HEAVY EQUIPMENT - INCIDENTAL PAVING &amp; UTILITIES</u>						
Air Tool man		1.25				
Asphalt heater man		1.50				
Asphalt raker		1.25				
Asphalt shoveler		1.25				
Batching plant scale man		1.50				
Carpenter		1.925				
Carpenter helper		1.37				
Concrete finisher (paving)		1.75				
Concrete finisher helper (paving)		1.25				
Concrete finisher (structures)		2.00				
Concrete finisher helper (structures)		1.75				
Concrete rubber		1.425				
Fireman		1.50				
Form builder (structures)		2.00				
Form builder helper (structures)		1.50				
Form liner (paving & curb)		1.75				
Form setter (paving & curb)		1.75				

1676G

<u>Craft</u>	Texas Tech		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Form setter helper (paving & curb)		\$1.50				
Form setter (structures)		2.00				
Form setter helper (structures)		1.60				
Laborer, common		1.15				
Manhole builder, brick		1.50				
Mechanic		1.96				
Mechanic helper		1.50				
Oiler		1.46				
Pipelayer		1.25				
Powderman		1.85				
Powderman helper		1.35				
POWER EQUIPMENT OPERATORS:						
Asphalt distributor		1.50				
Asphalt paving mach.		1.75				
Bulldozer						
80 h.p. and less		1.50				
Over 80 h.p.		1.75				
Concrete paving curing machine		1.50				
Concrete paving finishing machine		2.00				
Concrete paving form grader		1.625				
Concrete paving joint machine		1.50				
Concrete paving longitudinal float		2.00				
Concrete paving saw		1.375				
Concrete paving spreader		2.25				
Concrete paving subgrader		1.75				
Crane, clamshell, backhoes, derrick, dragline, shovel (less than 1½ CY)		2.00				
Crane, clamshell, backhoe, derrick dragline, shovel (1½ CY & over)		2.00				

<u>Craft</u>	<u>Texas Tech</u>		<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
	<u>Non-Fed. Contracts</u>	<u>HHFA Projects 1964</u>				
Crusher & Screening plant. op.		\$1.60				
Form loader		1.50				
Front end loader ( 1 CY and less)		1.45				
Front end loader (over 1 CY)		1.50				
Mixer (concrete paving)		2.25				
Motor grader, fine grade		2.00				
Motor grader		1.75				
Roller, steel wheel						
(plant mix pavement)		1.50				
(other)		1.37				
Roller, pneumatic S.P.		1.25				
Scrapers						
7 CY or less		1.50				
Over 7 CY		1.88				
Side boom		1.50				
Tractor, crawler						
80 h.p. & less		1.55				
Over 80 h.p.		1.70				
Tractor, pneumatic						
80 h.p. & less		1.25				
Over 80 h.p.		1.50				
Trenching machine						
Light		1.75				
Heavy		2.00				
Wagon drill		1.35				
Reinforcing steel setter (strs.)		2.075				
Reinforcing steel setter helper		1.20				
Spreader box man		1.25				
Swamper		1.25				
Truck Drivers						
Single axle, light		1.25				

<u>Craft</u>	<u>Non-Fed. Contracts</u>	<u>Texas Tech HHFA Projects 1964</u>	<u>*Lubbock Indep. School District</u>	<u>Associated General Contractors 4-13-64</u>	<u>City of Lubbock</u>	<u>Midwestern Trades Council 9-10-63</u>
Truck Drivers (continued)						
Single axle, heavy		\$1.50				
Tandem axle & semitrailer		1.25				
Lowboy		1.75				
Winch		1.50				
Vibrator (hand type)		1.25				
Welder		1.875				
Welder helper		1.25				

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

MINUTES OF THE CAMPUS PLANNING COMMITTEE

Meeting No. 236                      January 21, 1965

A meeting of the Campus Planning Committee was held at 4 p.m. on January 21, 1965, in the Museum Round Room.

The West Texas Museum Association Building Committee was represented by Mr. Mark Hailey, Chairman, and Mr. Retha Martin.

Members of the Campus Planning Committee present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Others present were Mr. Robert L. Mason, Mr. O. R. Downing and Mr. John G. Taylor.

Dr. Earl Green was present, representing the Museum.

The Associated Architects & Engineers were represented by Mr. Howard Schmidt, Mr. Hoyse McMurtry and Mr. Bob Messersmith.

2942. Museum

The locations of the various units of the Museum were reviewed. The main unit is 240 feet from Fourth Street, and a distance of 360 feet to the west of the main unit is reserved for future galleries. The western edge of the galleries will be 140 feet from Indiana Avenue.

There will be room to park 130 cars to each side of the drive to the front of the main unit and room for 65 cars to the west.

The brochure has been prepared for the old gin portion of the Industrial Unit. A temporary road and parking will be made available to the cotton gin prior to the completion of additional units.

The cut-away model of the main unit is to be constructed by the architects, and they must have additional approval of plans in order to begin.

The architects presented paintings of the exterior design and explained that efforts have been made to blend the proposed structure with other college buildings and to use the same basic materials. Construction and maintenance costs had been kept very much in mind.

The drawings displayed acceptable color, arches and brick. The Museum group wants to use some shell stone in order to tie to the archeological nature of the project, and it is proposed to use some stucco on concrete block for economy.

It was thought that perhaps the Planetarium might receive a different treatment from that depicted in order to make it more prominent and to capitalize on its uniqueness. Also, some question was raised about the overhang on portions other than the main unit.

It was suggested that it might be well to raise the yard in front of the main unit in order to produce a more monumental effect.

After a rather thorough discussion, it was agreed that the project would be studied a bit more and that construction would start on the cut-away model. When the architects get far enough along, probably about 70 percent, they will request another meeting in order that the model may be used in further study.

M. L. Pennington  
Chairman

The meeting adjourned at 5:05 p.m.

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

MINUTES OF THE CAMPUS PLANNING COMMITTEE

Meeting No. 237                      February 9, 1965

The Campus Planning Committee met at 1:30 p.m. on February 9, 1965, in Room 120 of the Administration Building. Mr. Wilmer Smith, Chairman of the Campus and Building Committee of the Board of Directors, was present. Members present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Also present were Mr. Robert L. Mason, Mr. O. R. Downing, Mr. John G. Taylor and Mr. Guy J. Moore.

2943. Approval of Minutes

On motion by Mr. Barrick, seconded by Mr. Urbanovsky, the Minutes of Meetings Nos. 235 and 236 were approved.

2944. President's Approval of Minutes

President Goodwin approved the Minutes of Meetings Nos. 232, 233, 234 and 235 on January 15, 1965, and No. 236 on January 23, 1965.

2945. Agricultural Facilities (CPC No. 93-64)

Horse Facilities

Inspecting Team

The Inspecting Team has not yet gone out.

2946. Architects' Rates

As the information will not be needed until arrangements are made with the next architects, it was agreed to make the information a part of the Minutes for future reference. (Attachment No. 566, page 1684)

2947. Bookstore Addition (CPC No. 69-62) (H. A. Padgett, Jr., \$238,499 August 1, 1964)

Final Acceptance

It was agreed to delay the recommendation for a final acceptance date of December 1, 1964, for further information on the equipment installed by the Carrier Corporation.

2948. Campus Lights

Library, Student Union, Music Building, Horn, Knapp, Drane, Doak and Weeks Area (CPC No. 95-64)

The installation was completed on January 26, 1965. Mr. Downing reported that the total cost of the installation is \$17,853.87. The low bid was \$23,193.58.

Men's Residence Council Request

Mr. Downing reported that the material to light the Bledsoe-Gordon parking lot has been ordered and will be installed as soon as it is received.

2949. Chemical Research Building (CPC No. 87-64)

The architects have returned two schematic plans to Mr. Barrick. He and his staff are working on the detailed locations with Dr. Dennis and will send a joint report to the architects.

2950. Classroom-Office Building (New) (Foreign Languages and Mathematics)  
(CPC No. 79-63)

Mr. Taylor reported that the Texas Commission on Higher Education has written that our application will be returned with suggestions which they want us to approve.

2951. Dormitory and Dining Facilities (Project CH-Tex-150(D))

Units B and C (CPC Nos. 72-62 and 73-62) (H. A. Lott, Inc., \$2,788,420.40 - August 1, 1964, and \$3,513,215.13 - August 1, 1964)

Construction Progress

a. Sunken Terrace (South of Snack Bar, Unit C)

The plans are almost complete and will be within a few days. It was agreed that Mr. Downing would be requested to do the work with his staff, and it is estimated that the cost will run between \$25,000 and \$30,000, the amount to be paid from Dormitory Funds.

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Mr. Wilmer Smith, Chairman of the Campus and Building Committee of the Board of Directors, entered the meeting.  
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b. Fountains

The contractor has reported that the fountains have been repaired, and a check indicates that they are. A later report indicated that the fountains in Hulen and Clement may still be leaking.

2952. Dormitory Expansion

Inspecting Party

A great deal of discussion ensued on the results of the inspecting party on dormitory facilities. A copy of the report by Mr. Barrick, Mr. Moore and Mr. Taylor is attached to and made a part of the Minutes. (Attachment No. 567, page 1685)

The report generally covers their first opportunity to make recommendations.

In addition, each of them is preparing a separate report on his individual reactions to the places visited. The reactions will appear in later Minutes.

Parking came up in connection with the housing and will appear under the item for parking.

2953. Housing (Other) and Food Service

A. Consolidated Food Service Unit for West, Sneed, Bledsoe and Gordon Halls - November 1, 1964, and Central Food Facilities - September 1, 1964 (CPC No. 74-62)

Mr. Barrick reported that Mr. Dana has been here, made his final check and will have a punch list in connection with it. All equipment is now working satisfactorily.

2953. Housing (Other) and Food ServiceA. Consolidated Food Service Unit for West, Sneed, Bledsoe and Gordon Halls - November 1, 1964, and Central Food Facilities - September 1, 1964 (CPC No. 74-62) (continued)Liquidated Damages

After a very great deal of study, accumulation of voluminous files and a number of meetings, the following recommendation is made by the CPC for liquidated damages:

a. Central Food Facilities

Date scheduled for completion: September 1, 1964.  
The architects recommended and the CPC recommends November 6, 1964, as the date for beneficial occupancy.

Days Beyond Scheduled Completion Date 66 days

<u>Cause for Extension</u>	<u>Days</u>
Postponement of the original bidding date from Dec. 5 to Dec. 11, 1963	6
Delay resulting from Change Order No. 2 changing footings in basement	10
Delay resulting from error in light fixture specifications	6
Delay resulting from Change Order No. 5 requiring insulation of boilers	6
Delay resulting from repiping of cold storage room compressors in the penthouse mechanical equipment room	10
Delays because of method required for building fill	5
Delays resulting from unusually severe weather conditions	5
Delays resulting from communication difficulties with distant consultant	<u>10</u>
Total recommended by architects	58
Additional days recommended by CPC for delay in award of contract	<u>4</u>
Total	<u>62 days</u>
Liquidated Damages at \$500	<u>4 days</u>

2953. Housing (Other) and Food Service

- A. Consolidated Food Service Unit for West, Sneed, Bledsoe and Gordon Halls - November 1, 1964, and Central Food Facilities - September 1, 1964 (CPC No. 74-62)

Liquidated Damages (continued)b. Consolidated Food Service Unit

Date scheduled for completion: November 1, 1964.  
The architects recommended and the CPC recommends December 6, 1964, as the date for beneficial occupancy.

Days Beyond Scheduled Completion Date 5 days

<u>Cause for Extension</u>	<u>Days</u>	
Change Order No. 1	10	
Delay caused by changes in the electrical specifications	<u>5</u>	<u>      </u>
Total		<u>15</u>
Liquidated Damages		<u>0</u>

B. Housing Office

Mr. Downing has the project under way. The lean-to has been removed, the ground has been cleared, the foundation has been poured, and all the materials are on order.

2954. KTXT-TVStatus of Tower

No additional information has been received, but there has been a meeting with the area superintendents and a meeting of the TV Committee is scheduled for Friday afternoon of this week.

-----  
Mr. Robert L. Mason entered the meeting, and  
Mr. Wilmer Smith left the meeting.  
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2955. Library

Mr. Barrick will check with the architects on the fee to be paid to them.

-----  
Mr. Barrick left the meeting to attend a Department Heads meeting of the School of Engineering, and  
Mr. Moore left the meeting.  
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2956. Long-Range PlanCity Officials

A meeting was held on January 21, 1965, in the Plot Plan Room with Mr. N. D. McCullough, City Director of Utilities, and his staff.

The plots and plans in connection with the College's growth and development were reviewed with the city staff, and the members had opportunity to ask questions.

The meeting was from 2 p.m. until 4 p.m.

2957. Other ItemsA. Southwestern Public Service Company Easement

Mr. Mason presented the first proposed draft of an agreement with the Southwestern Public Service Company, prepared by the company, and a proposed bill.

After a great deal of discussion, it was agreed that the bill is in condition to present to the Legislature and that a study will be made of the proposed agreement. There is some thought that the proposed location along Flint Avenue may not be the proper place, and the study may reveal that it should be moved to another location. It may be wise to delay approval of the installation of the line until the master plan for the College is further developed.

The proposed draft of the bill and the proposed agreement are attached to and made a part of the Minutes. (Attachment No. 568, page 1686)

B. Safety Precautions

A study of the handling of radioactive materials on campus is in progress.

C. Master Plan

It was agreed that an attempt will be made to suggest, if possible, names of consultants to the Board of Directors at the next meeting.

D. Sororities

The Chairman reported that a request has been received to consider space for the sororities to store ritual materials and hold meetings in the new proposed housing.

In the mid-1950's, attempts were made to provide housing for the sororities and fraternities in the residence halls, and the idea was rejected by the social fraternities. Then, an effort was made to provide special housing facilities for the social fraternities and, again, the idea was rejected. At about the same time, due to the attention given the idea by the press, the State Legislature passed an act to prohibit restricted use of residence halls.

The sororities would like to be closer to the College than the proposed lodges to the west of the College Farm, and some of the national representatives have endorsed the idea.

It is doubtful that it would be practical or possible to provide such facilities in the new residence halls. However, it might be advantageous and possible to have such facilities in the next addition to the Union.

It was agreed that the idea merits study, and that a check should be made with the corporation handling the land for the fraternity and sorority lodges and with members of the Student Life staff.

2958. ParkingA. Ports of Entry

Dean Jones' committee is still studying the ports of entry.

Mr. Barrick and Mr. Urbanovsky presented preliminary studies of the parking area that would be required if parking spaces are to be doubled on the campus. No consideration was given to future building sites, varsity and intramural fields, band practice and ROTC drill areas.

2958. ParkingA. Ports of Entry (continued)

General schemes of off-campus areas for parking, with bus routes, were considered.

Further study of these and other ideas relative to the parking problem will be presented at the next meeting of the Campus Planning Committee.

B. Doak Hall Request

Chief Daniels is still studying the problem.

2959. Signs on Campus

Mr. Urbanovsky reported that the last sign was installed on January 29, 1965, and the project is now complete.

2960. Traffic-Security FacilitiesFinal Completion Date

Mr. Downing reported that the project was completed on January 26, 1965.

2961. UtilitiesSubstation at Meats Lab (CPC No. 96-64)

The overhead wires were removed some weeks ago.

2962. Wage ScaleRecommendation to the Board

There has been no opportunity for the CPC to make a study of the information on the wage scale.

2963. Will Rogers' StatueLighting

Mr. Downing reported that student Gerald Cagle has transferred from Tech, and we are now working with Gary Longanecker. The estimated cost has been approved by the Associations of Men's Residence Halls 9 and 10. A meeting was held on February 4, 1965, and locations for the lights were marked. As soon as material can be purchased, the installation will begin.

M. L. Pennington  
Chairman

The meeting adjourned at 4:45 p.m.

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

January 21, 1965

ARCHITECTURAL AND ENGINEERING SERVICES AND FEES AT SEVERAL STATE UNIVERSITIES AND COLLEGES

University or College	Fees Paid to Project Architect				Fee Paid Consulting Architect	Clerk of the Works			Other Comments
	Total	Preliminary Drawings	Final Drawings and Contract Award	Supervision		Who Hires	Who Pays	Amount	
University of Texas	4% or 4 1/2%		3 1/2%	1/2% or 3/4%	1%	School; subject to approval of architect	School	1% or 3/4% If less, balance paid to Project Architect	If project is not built, the project architect will be paid 3 1/2% for final drawings and specifications. Provision is made for payments to architects for extra services required. Clerk of the works is used on all projects.
Texas A&M University	6%	1%	4 1/2% less previous payments (3 1/2% less previous payments for final drawings only)	1% Balance of 1/2% upon completion of project		School; subject to approval of architect	School	Not stated	If project is not completed, architect is paid 4% for drawings and specifications or 4 1/4% if bids have been received. Provision is made for payment to architect for extra services required.
University of Houston	6%	15% (.90%) Schematic Drawings 35% (2.10%) less previous payments Design Development	80% (4.80%) less previous payments (75% or 4.50% less previous payments, for final drawings only)	20% (1.20%)		School; subject to approval of architect	School	Not stated	Standard Printed A.I.A. Contract, assumed to be A.I.A. Doc. B-131, Sept., 1963. If project is not built or is abandoned, the architect will be paid for all services rendered. Provision is made for payment to the architect for extra services required.

## ARCHITECTURAL AND ENGINEERING SERVICES AND FEES AT SEVERAL STATE UNIVERSITIES AND COLLEGES

University or College	Total	Fees Paid to Project Architect			Fee Paid Consulting Architect	Clerk of the Works			Other Comments
		Preliminary Drawings	Final Drawings and Contract Award	Supervision		Who Hires	Who Pays	Amount	
North Texas State University	5% Dormitory	25% (1.25%)	75% (3.85%)	25% (1.25%)		School; subject to approval of architect	School	Not stated	Used A.I.A. Contract Document No. B-121 (formerly Form B102), 1958 Edition. Does not specifically say what happens if project is not completed. Provision is made for payment to architect for extra services required.
	6% Biology Building	(1.5%)	(4.5%) less previous payments (paid monthly as drawings & specs progress)	(1.5%)					
East Texas State College	6%	25% (1.5%)	75% (4.5%) less previous payments (paid monthly as drawings & specs progress)	25% (1.5%)		School; subject to approval of architect	School	Not stated	If project is not completed or contract with architect is cancelled, the architect will be paid for all services rendered at rates shown in contract. Provision is made for payment to architects for extra services required.
West Texas State University	6%	1%	65% (3.90%) less previous payments	35% (2.10%)		School; subject to approval of architect	School	Not stated	If project is not completed or contract with architect is cancelled, the architect will be paid for all services rendered at rates shown in contract. Provision is made for payment to architects for extra services required.
Lamar State College of Technology	6%	25% (1.5%)	75% (4.5%) less previous payments (paid monthly as drawings & specs progress)	25% (1.5%)		School; subject to approval of architect	School	Not stated	Used A.I.A. Contract Document No. B-121 (formerly Form B102), 1958 Edition. Does not specifically say what happens if project is not completed. Provision is made for payment to architect for extra services required.

## ARCHITECTURAL AND ENGINEERING SERVICES AND FEES AT SEVERAL STATE UNIVERSITIES AND COLLEGES

University or College	Fees Paid to Project Architect				Fee Paid Consulting Architect	Clerk of the Works			Other Comments
	Total	Preliminary Drawings	Final Drawings and Contract Award	Supervision		Who Hires	Who Pays	Amount	
Texas A & I	6%	25% (1.5%)	75% (4.5%) less previous payments (paid monthly as drawings & specs progress)	25% (1.5%)		School; subject to approval of architect	School	Not stated	Used A.I.A. Contract Document No. B121, 1961 Edition. If project is not completed or contract with architect is cancelled, the architect will be paid for all services rendered at rates shown in contract. Provision is made for payment to architects for extra services required.
Texas Tech	5%	20% (1%)	75% (3 3/4%)	25% (1 1/4%)		Not stated	Not stated	Not stated	If project is not completed or contract with architect is cancelled, the architect will be paid for all services rendered at rates shown in contract. Provision is made for payment to architects for extra services required.

Campus Planning Committee  
February 9, 1965  
Attachment No. 567  
Item 2952

# DORMITORY EXPANSION

## Report of Inspecting Party

(Mr. Barrick, Mr. Moore and Mr. Taylor)

January 31, to February 8, 1965

(Recommendations based upon individual reports)

Institutions visited: University of Wisconsin, Michigan State University, and Indiana University. In addition, Mr. Moore visited Illinois Normal and Southern Illinois.

1. Plan a housing complex, including food service facilities, for approximately 3,000 students, but build only space we can now finance and which would present an economical operation.
2. Recommend that while designing this complex, the administration arrive at a set percent of single undergraduate students, such as fifty percent (50%), that will be housed on campus, then publish the projected number of students for the next five years and the number the College proposes to house. Get this information into the hands of private capital people to encourage off-campus housing. At this point, an off-campus housing policy should be originated and published to guide private investors in the operation of their residence halls.
3. It is recommended that students 21 years of age or older be permitted to live off campus if they desire.
4. It is recommended that each living unit be planned for a minimum of 40 students and a maximum of 60 students, with a part-time staff member, lounge, study and utility spaces. Each building should be designed so it can be used by either men or women. The range between the number of students in each living area will be determined by the configuration of the plan.
5. Because of the distance of housing from campus and the time required to get to and from the housing units to classrooms, units should be constructed in higher population density. It is recommended that our present policy of providing parking spaces in close proximity to the residence halls be reevaluated.

The University of Wisconsin, Michigan State University and Indiana University have found it necessary to have 15-minute class breaks.

6. The proposed site for the complex is recommended to be west of Flint Avenue and south of the Physical Plant Building and Central Food Facilities, leaving enough room on the south side of the complex to extend the educational building mall west from the Library building. It is recognized that the complex could be located west of Flint Avenue and just north of 19th Street, but the site recommended will put the students nearer the center of the campus. As soon as a decision is reached about parking for students in the complex, the number of acres needed could be determined.
7. A complex with major requirements for utilities across Flint Avenue might exceed the capacity of the present power plant and the construction of a power plant somewhere across Flint Avenue may be needed. This needs to be determined soon.

Campus Planning Committee  
February 9, 1965  
Attachment No. 568  
Item 2957A

THE STATE OF TEXAS

COUNTY OF LUBBOCK

WHEREAS, the Legislature of the State of Texas by an Act entitled:

An Act authorizing the Board of Directors of Texas Technological College to enter into an agreement with Southwestern Public Service Company, granting to Southwestern Public Service Company permission to install, maintain and operate an underground electrical transmission line across the campus of said college upon terms and conditions satisfactory to said Board of Directors, together with rights of ingress and egress to the extent reasonably necessary for such purposes, and authorizing said Board of Directors to require necessary and proper covenants and undertakings on the part of said Southwestern Public Service Company.

Chapter \_\_\_\_\_, Page \_\_\_\_\_, Acts of the Fifty-ninth Legislature, has authorized the Board of Directors of Texas Technological College to enter into an agreement with Southwestern Public Service Company, a corporation, authorizing the installation of an underground electrical transmission line by said corporation across the campus of said college; and

WHEREAS, it is desired to set forth in writing the terms and conditions upon which said authorization is granted:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS: That the Board of Directors of Texas Technological College, acting by and through its undersigned \_\_\_\_\_, hereinafter called the College, and Southwestern Public Service Company, a corporation, hereinafter called the Company, have agreed and do hereby agree as follows:

1.

The College hereby grants the Company permission to install, maintain and operate an underground electrical transmission line under and across the campus of said College, at the location shown on the plot plan which is attached to this agreement, marked Exhibit "A" and by reference incorporated herein, together with the rights of ingress and egress to the extent reasonably necessary for such purposes.

2.

The Company will make all arrangements necessary with the Highway Department of the State of Texas, and with the Panhandle and Santa Fe Railway Company, for whatever crossings underneath the lands controlled by said highway department and by said railroad company are necessary for the installation aforesaid.

3.

The Company will repair any damage done by it in the course of such installation to underground waterlines, gaslines, sewer lines, sprinkler lines, electrical service lines and telephone lines on the campus. In this connection, the College will use its best efforts to assist the Company to locate such underground service lines before any work is started, and to mark the same, in order to minimize any such damage.

4.

During the course of the construction, automobiles and other vehicles used in connection therewith will be parked only in spaces designated by officials of the College. The College will designate locations for unloading and storing materials, and only such locations will be used for such purposes.

5.

The Company will exercise its best efforts to prevent damage to lawns, trees, shrubs, fences and improvements, and will backfill its excavation as directed by officials of the College. Any surplus dirt will be hauled to other locations on the campus, as designated by officials of the College.

6.

The Company will construct, at its own cost and expense, a sidewalk six feet (6') wide above the underground transmission line, from 19th Street to the service entrance to the Physical Plant Building.

7.

The Company shall hold the College harmless from any loss or damage to persons or property resulting from the installation, operation or maintenance of the underground lines installed pursuant to this agreement, and the Company shall be the sole owner of all lines so installed.

8.

If at any time in the future, the College should locate a building above any portion of the underground transmission line installed pursuant hereto, the Company will relocate its transmission line as directed by officials of the College, such relocation to be at the cost and expense of the Company, and without expense to the College.

1686B

9.

The duration of the permission hereby granted to the Company shall be perpetual. However, should the Company at any time in the future decide to discontinue the use of such electrical transmission line, it may, at its election, disconnect all sources of electrical current to the same, and render the same harmless, leaving the same in place; or the Company may, at its election, recover the salvageable portion of said electrical transmission line, in which event it shall promptly repair any damage done by such removal.

EXECUTED This \_\_\_\_\_ day of \_\_\_\_\_, A. D., 1965.

BOARD OF DIRECTORS OF  
TEXAS TECHNOLOGICAL COLLEGE

By: \_\_\_\_\_

SOUTHWESTERN PUBLIC SERVICE COMPANY

By: \_\_\_\_\_

A BILL  
TO BE ENTITLED

An Act authorizing the Board of Directors of Texas Technological College to enter into an agreement with Southwestern Public Service Company, granting to Southwestern Public Service Company permission to install, maintain and operate an underground electrical transmission line across the campus of said college upon terms and conditions satisfactory to said Board of Directors, together with rights of ingress and egress to the extent reasonably necessary for such purposes, and authorizing said Board of Directors to require necessary and proper covenants and undertakings on the part of said Southwestern Public Service Company.

BE IT ENACTED by the Legislature of the State of Texas:

Section 1: The Board of Directors of Texas Technological College is hereby authorized to enter into an agreement with Southwestern Public Service Company, whereby Southwestern Public Service Company shall be granted permission to install, maintain and operate an underground electrical transmission line across the campus of said college, upon terms and conditions satisfactory to said Board of Directors, together with the rights of ingress and egress to the extent reasonably necessary for such purposes.

Section 2: Said Board of Directors is further authorized to require such covenants and undertakings on the part of Southwestern Public Service Company as may be necessary and proper in carrying out the provisions of this Act.

AND IT IS SO ENACTED.

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

MINUTES OF THE CAMPUS PLANNING COMMITTEE

Meeting No. 238      February 11, 1965

A meeting of the Campus Planning Committee was held at 8:30 a.m. on February 11, 1965, in Room 120 of the Administration Building. Mr. Wilmer Smith, Chairman of the Campus and Building Committee of the Board of Directors, was present. Members present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Also present were Mr. John G. Taylor and Mr. Guy J. Moore.

2964. Dormitory Expansion

A. Site

There was a great deal of discussion on a proper site for the proposed housing.

The inspecting party recommended that the facilities be located west of Flint Avenue and south of the Physical Plant Building and Central Food Facilities, leaving enough room on the south side of the complex to extend the Educational Building mall west from the Library Building. (Attachment No. 567, page 1685)

The Campus Planning Committee recommended that two sites should be considered--The one recommended by the Inspecting Party and the one west of Flint and just north of 19th Street. The specific location could be decided during the process of further study. It probably would not be wise to recommend the specific site until that stage is reached.

Items which should be taken into consideration in selecting the site are the walking distance, cost of utilities, future academic expansion, etc.

B. Type

It was agreed to recommend that the facilities be a high-rise complex in order to economize on land and to provide a high density area from the student population standpoint. Parking would be an important factor in the determination of size. The plans should be as flexible as possible to provide for additions. The facilities probably should be 8 to 14 stories high.

C. Size

The goal is 3,000 spaces by September 1, 1967, or as many as can be afforded. The quantity of spaces will be determined by the method of financing, and the method of financing will affect the room and board rates. The facilities probably will require 30 acres.

D. Financing

On Campus

The Board has requested that the study be designed to accommodate the housing on campus. It is possible for the College to borrow the money from the HHFA or the open market. Making arrangements to borrow through the HHFA automatically gets consideration by the private market, although the bond resolutions on which the bids are based would be those of the HHFA. There is a possibility that the HHFA may allow the use of borrowed funds for movable furniture and equipment. If so, the College probably could borrow enough money from the HHFA for the 3,000 spaces.

2964. Dormitory ExpansionD. Financing (continued)On Campus

The College could advertise in the open market for bids and probably receive a rate at about the equivalent of that charged by the HHFA. There is some talk that the next HHFA rate may be 4 percent.

It would be possible to have private capital build the facilities on-campus under plans approved by the College and lease the facilities to the College for operation. Other firms have suggested that the College provide the land and they will construct and operate the facilities under plans approved by the College, and at the end of a specific period of time, give the title to the facilities to the College. It is pretty well agreed that the College can do anything that the others can on campus and at probably considerable savings to the students. The only advantage would seem to be that if a firm constructed the facilities and the title would eventually go to the College, the College would not be involved in financing the construction.

Off Campus

1. The College could purchase the land, construct, own and operate the facilities.
2. Private capital could construct and lease the facilities to the College to operate.
3. Private capital could construct and operate the facilities with the cooperation of the College.
4. It would be possible to form a nonprofit corporation, through which the College would own and operate the facilities.

To encourage private capital, it would be necessary to make a specific statement of the College's intent for future housing.

In conclusion, it was agreed that there are many ways that the facilities could be handled and that future housing should be a part of the long-range plan.

Attached is a summary of the proposed methods to provide housing which was prepared by Mr. Taylor.  
(Attachment No. 569, page 1690)

E. Architects

It was agreed that it would be premature to recommend specific architects until more is known of the project.

F. Legislative Picture

A note of caution was sounded that it might be well to consider the action that the Legislature is taking and may take in connection with higher education before becoming heavily obligated.

G. Inspecting Party

It was agreed to include the individual comments of the members of the Inspecting Party. The comments are attached to and made a part of the Minutes. (Attachment No. 570, page 1693)

2965. Master Plan

The Campus Planning Committee voted to recommend that the best available professional talent be engaged to make a long-range master plan for Texas Tech and that the plan encompass all appropriate areas.

Some discussion was devoted to possible firms, but it was agreed that insufficient information is available at the present time to make a specific recommendation. Some doubt was expressed that an architectural firm could provide the broad scope that is needed.

It was agreed to recommend that a committee from the Board of Directors and the Campus Planning Committee work together to seek the best group available.

2966. Museum

Although the cut-away model is not complete, the Campus Planning Committee agreed that it will be placed on exhibit in Room 116, in the east wing of the Administration Building and members of the Board of Directors Building Committee would be requested to examine the display, along with other members of the Board who may wish.

2967. Parking

It was agreed that Mr. Urbanovsky and Mr. Barrick would be requested to present the studies that they have made on trying to double the parking space on campus.

The information on ports of entry and much of the other which is being accumulated on parking will be presented at a later date.

M. L. Pennington  
Chairman

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The meeting adjourned at 11:10 a.m.

Campus Planning Committee  
February 11, 1965  
Attachment No. 569  
Item 2964D

Summary of Proposed Methods to Provide Housing

January 11, 1965 - Letter from Mr. M. L. Pennington to Dr. Joe Ray, President, Texas Western College, El Paso, Texas concerning a new five-story men's hall just off campus. Dr. Ray reported orally that there is a private housing operation off campus and they are very pleased with it.

December 31, 1964 - Letter from Mr. M. L. Pennington to Mr. C. F. McElhinney, Senior Vice President, University of Houston, regarding private financing of residence halls. Mr. McElhinney replied that they had recently sold \$16,300,000 in bonds to the private market to be repaid from building use fees, and that Mr. E. S. Emerson of Emerson & Company, San Antonio, Texas, had handled the bond sale for them. They were very pleased with this firm.

December 31, 1964 - Letter from Mr. M. L. Pennington to Mr. James H. Colvin, Business Manager, The University of Texas, regarding their experience in private financing. Mr. Pennington talked with Mr. Colvin over the telephone, and he said there are some off campus projects for women in Austin and some are contemplated for men. The operation seems to be quite satisfactory. At a later date Mr. Colvin sent a summary of a trip made by Mr. Charles H. Sparenburg, Comptroller, The University of Texas, to visit residence halls operation and construction projects going up at Washington University, St. Louis, Missouri; Indiana State College, Terre Haute, Indiana; Indiana University, Bloomington, Indiana; University of Georgia, Athens, Georgia; Georgia Institute of Technology, Atlanta, Georgia; and Tulane University, New Orleans, Louisiana. The report contained much interesting information.

January 5, 1965 - Mr. Floyd Wooldridge, former Board member, had expressed interest in future housing at Texas Tech, so Mr. Pennington wrote Mr. Wooldridge a letter on this date. Mr. Wooldridge is now with Richard Lamb and Company, Dallas, Texas. Mr. Wooldridge answered Mr. Pennington's letter on January 25, 1965, and explained briefly that their company was in the housing business, but they are not yet ready to contact Texas Tech and make a proposition.

December 18, 1964 - Received a letter from Mr. James H. Coker, Coker Brothers Construction Company, Dallas, Texas, stating that they are interested in building and operating residence halls or will build and lease the halls to the school. On January 5, 1965, Mr. Pennington wrote Mr. Coker and advised him that we were in the market for financing and construction of some more housing. The file indicates that no reply has been received from Mr. Coker.

November 9, 1964 - Received a letter from Mid-American Appraisal and Research Corporation, Chicago, Illinois, stating that they are interested in providing housing for colleges and universities with several arrangements: (1) by leasing a suitable site on campus, (2) by acquiring a suitable site on campus, (3) by acquiring a suitable site off campus, provided it can be incorporated into the present campus under our general plan. On January 5, 1965, Mr. M. L. Pennington wrote this company for further information, and the file indicates that no reply has been received.

January 4, 1965 - Educational Facilities Laboratories, Inc., New York. Mr. Pennington requested whatever assistance was available to help us in developing our next housing projects. On January 26, 1965, Educational Facilities Laboratories, Inc., sent numerous publications which they feel will be of help to the College. One publication on Low-Rise Vs. High-Rise Dormitories is out of print, but they will send us a copy as soon as it is available.

October 29, 1964 - Received a letter from Centro Development Corporation, Mr. Glenn T. Lang, Jr., Dallas, Texas, indicating this corporation was interested in providing housing. This firm would like for the College to furnish the land, let them build the dorm, lease the dorm back to the College and then turn it over to the College at the end of the lease period. On January 4, 1965, Mr. M. L. Pennington wrote and asked this firm for more details. On February 3, 1965, the information was received

which indicates that the Centro Development Corporation would have a new company, the Reglan Company, build, own and manage the residence halls, either on or off campus. They specify that the Glenn Justice Mortgage Company will handle the mortgage financing, that the T. C. Bateson Construction Company will be the contractor, that Broad and Nelson will be the architects, that Mr. Robert Levine will be consultant to supervise operation of the student dormitories, that all administration will be approved and sanctioned by the university, that applications for admission will be approved by the university, that dormitories will be an integral part of the university housing program and subject to the rules and controls established.

Mr. Pennington, Mr. Moore, and Mr. Taylor met with Mr. Lang on February 10, 1965, to discuss private housing off campus. Mr. Lang said that his firm did not see how they could possibly build any housing on campus any better or cheaper than the College could and they were interested only in off campus housing. Mr. Lang would like to know if the College is willing to work with his group and let them build private housing off campus on College Avenue and to take into consideration what they will build when making plans for the next housing on campus. (300 to 500 capacity, high-rise)

If the College is ready to work with Centro Development Corporation, Mr. Lang and Mr. Nelson, their architect, will come to Lubbock next week and make a survey.

January 5, 1965 - Mr. M. L. Pennington wrote Mr. M. M. Hatcher, Rowles, Winston & Company, Dallas, Texas, and asked him for his interest in financing of new residence facilities. On February 3, 1965, Mr. M. L. Pennington, Mr. R. B. Price and Mr. J. G. Taylor met with Mr. Hatcher in Mr. Pennington's office. Mr. Hatcher said one way to build the housing would be to form a tax-free corporation which would allow the College to get its own architect and contractors, construct the facilities as it pleased and to run the operation. The bond issued by a non-profit corporation would be tax-free, and the College would not be bound by our existing indentures on other residence halls. The corporation would be backed by the facilities. The interest rate could be under 4 percent. Rowles & Winston would buy the bonds or act as our agent for the sale for a fee. They would give us a guaranteed interest rate or they could bid if we wanted them to. The coverage would be about 1.25; the time would be about 35 years and could be more. The College would have the freedom to borrow for the whole complex. A corporation would allow us to get away from all existing restrictions.

After a very great deal of discussion, it was agreed that there would seem to be no advantage to the tax-free corporation if the housing is constructed on campus.

Mr. Hatcher expressed an interest in off campus housing and said that his firm would have to survey it before they could give us an opinion. A survey would probably cost them from \$5,000 to \$6,000 which they would be glad to do without commitment on the part of the College, other than that the College would agree to consider it before they spent the money for the survey. They will study the off campus housing if we wish, and will design and make an offer if it would be considered.

It looks as if a private corporation could have advantages off campus but not on campus. The interest rate could be about 4 percent.

Mr. Hatcher stated that it might be possible to save some funds by the reissuance of existing bonds. He said that he had talked with the HHFA, and they would like to sell some of the bonds the Government is now holding. He said he would check with HHFA.

September 21, 1964 - Received a letter from the L. T. Rothschild and Company, New York, N. Y., proposing to help us with financing of residence halls. On January 5, 1965, Mr. M. L. Pennington wrote this firm and requested more details regarding financing. On January 13, 1965, the company asked for more information which Mr. Pennington furnished. Nothing further has been heard from this firm.

September 29, 1964 - A letter was received from the Campus Housing Development Corporation, Mr. Howard A. Sunshine, New York, N. Y., advising that they were interested in helping us with financing and building new residence halls. Since that time, several phone calls and letters have been

exchanged between this corporation and Mr. Pennington. The last letter from the corporation, January 21, 1965, indicates that their plan is to lease college land for \$1 per year, build the facilities, then lease the facilities back to the College, with the title being transferred to the College at the end of the lease period.

October 5, 1964 - Mr. Robert V. Tishman, President, Tishman Realty and Construction Company, Inc., New York, N. Y. A letter was received indicating interest in private housing off campus. On January 4, 1965, Mr. M. L. Pennington wrote Mr. Tishman that we were going to provide more housing and inquired as to their interest in providing off campus housing. On January 20, 1965, Tishman Realty & Construction Company sent a letter and several items covering information about Bromley Hall, which they are presently building at the edge of the campus of Ohio University, and indicated that this is the type of structure they are planning and probably will build near other university campuses. Bromley Hall is patterned after Lowell Hall, which has been in operation for several years at the University of Wisconsin and which Mr. Barrick, Mr. Moore and Mr. Taylor visited last week while on their tour. Tishman Realty Company constructs, owns and operates all of its residence halls. The administrators of these halls, in most cases, try to cooperate with the university or college.

Campus Planning Committee  
 February 11, 1965  
 Attachment No.  
 Item

# DORMITORY EXPANSION

Report by Mr. Nolan E. Barrick

January 31, to February 8, 1965

Institutions visited: University of Wisconsin, Michigan State University, and Indiana University.

Any analysis of inspection trips should be prefaced by an evaluation of the purpose which should be served by that which is under examination. In this case this would be "What is college housing intended to be?"

The trip pointed up the fact that the whole concept of college housing needs examination. Extensive efforts are being made to solve the problem architecturally when the problem has not been realistically or carefully established. The end result is foredoomed to failure unless the total operation is clearly and functionally defined, including both campus housing and off-campus housing.

From the purely physical standpoint, I believe that college housing should be adequate to provide comfortable facilities of various types to afford the student opportunities for living and study without undue enforced controls or interference. Some housing directors would seem to have encouraged a drift into the view that college housing is primarily a social program. Somewhere between the two extremes likely lies the satisfactory and realistic purpose.

The philosophy of housing observed at Wisconsin, Michigan State and Indiana varied considerably, insofar as my impressions are concerned. Unfortunately the timing of the visit was such that we did not have an opportunity to interview students extensively. Impressions, therefore, are based on "what management thinks the student wants," or more correctly, "what management wants the student to want."

In my opinion, Indiana seemed to be running the most businesslike operation. I strongly favored the hotel manager aspect of the resident director. It would appear that some separation of the operation of the physical establishment and the program establishment would be desirable if a mutual respect and working relationship could be maintained. Dormitory structures are too complex for "housemothers" to operate and even the minimum necessary social aspects of a desirable dormitory facility could well be contrary to the make up of the "building manager." It would be difficult to find one individual adept in both fields.

The following essential items would indicate a lack of unanimity on matters of variance from Texas Tech which would affect the architecture to a critical degree.

1. Wisconsin - Thinks that gang showers and toilets are the best solution to the problem, viewing this item in the plan as the basic social unit.
2. Michigan State - Says that separate baths are preferable and that rooms with connecting baths reduce maintenance and custodial costs since the students clean their own quarters and the college does need to take this responsibility. It is obvious, however, that the college must clean all of these units at least two times a year when occupancy changes.
3. Wisconsin, Michigan State and Indiana provide linens and blankets to varying degrees but did not provide maid service.
4. All three institutions provided hand luggage storage on each floor. This was not a plus factor in design, but was necessitated by the fact that inadequate storage facility was provided in the student room. It was, therefore, mandatory that centralized storage be provided.

5. Michigan State University represented, in my opinion, an outstanding example of top-heavy administration. Furthermore, the design of dormitory units was the least desirable of all we saw. The only favorable factors I can recall were good entrance stair halls with adequate space and a feeling of space, and the installation of apparently successfully operating classrooms within the dormitory complex for the students living in that group. This might be the best of all factors we saw.

6. Food Service was fairly uniform and the fixed-line cafeteria system was utilized everywhere. Relative to the food service, however, the frequent practice of bringing students into the kitchen and food preparation areas for serving was unacceptable. Michigan State resorted to the use of unprotected flattop stainless steel tables without cold plates to serve salads, desserts, bread, etc. This practice was shocking since it is totally unsanitary and could not pass any recognized sanitation code. One sneeze could inoculate the entire dormitory with a virus.

7. Furniture and Furnishings

- a. We did not find any rooms with lavatories.
- b. We did not find any examples where built-in furniture was provided for the total room. In every case, the entire bed was movable. Desks, bookcases, chests, etc., varied in the extent of permanent installations. The reason for this was claimed to be flexibility. I strongly suspect, however, that the fact that the dormitories were not air conditioned made it desirable to have the beds movable so that they could be placed near the window in the late spring and summer. It gets very hot and humid in the Middle West.
- c. No rooms provided storage space in the amounts we are providing at present. In fact, we did not see any rooms where storage facilities were really adequate in the college-provided facilities.
- d. No rooms provided furniture of the quality that we have been installing in our latest units.
- e. Closets varied from totally exposed hanging rods to closet areas covered by matchstick bamboo curtains, raton doors, and sliding doors of plywood or hollow core door construction. None had locks.

8. Facilities - In general, I believe that the dormitories we saw were superior to our design in one single aspect. This was the provision of small lounges or study rooms on the individual living floors. This could easily be provided by reducing the size of our public lounge space and distributing smaller spaces throughout the complex. Most of the newer units, especially at Indiana, provided small reference libraries within the buildings themselves. This could be a very desirable situation and deserves examination. Michigan State provided classroom facilities within the dormitory complex. These appeared to work extremely well and were very attractive spaces. This is certainly worthy of further study.

9. Incinerators were used only at Indiana with success being claimed. An examination of the facility leads me to believe that the operation is not as successful as claimed. Wisconsin and Michigan State resorted to trash chutes and compaction-type trash disposal units. Custodial spaces seemed to be very meager, although cleaning equipment and implements were provided by the college for the use of the students, these being stored in the custodial spaces. Some variation of this might be worthy of study. Only public rooms were air-conditioned. We saw no air-conditioned residential rooms in the college-built facilities. Experiments were being conducted with carpeting in the corridors. This has great potential and we have previously talked about having some trials on this. Supervisors' apartments were about the same as those provided by Texas Tech. The consensus was that apartments for supervisors should be maintained at one bedroom and the provisions at each institution were very similar to those in our latest units. It might be well for us to provide a separate bedroom for the relief counselor in addition to the apartment. Room sizes for students range from 168 square feet to approximately 200 square feet for a double room. We do not seem to be out of line in this regard.

10. Food Service - Installations of kitchens or cafeteria lanes were not superior to those provided at Texas Tech. Most installations were not as attractive nor as well designed as our newer units. We saw no installation where the waiting line was separated from the dining area. Line-up spaces were provided in public corridors or within the dining room itself. Cafeteria lines varied from the totally unacceptable open table arrangement at Michigan State University to the conventional type similar to those at Texas Tech. In general dining rooms appeared to be smaller but less attractive. Dirty dishes were returned to the dishwashing area by conveyor in all instances where possible. Indiana seemed to be "conveyor happy." We should examine the use of new Delrin type conveyor belts that can be self-cleaning. This seemed to have great potential and could alleviate the long and expensive scrub-up system Indiana was experiencing with their conveyors.
11. Mechanical Equipment - Elevators were adequate and in most instances were electric. Heating was almost universally handled by circulating hot water convectors with refrigerated air conditioning only in public spaces. Bath facilities varied. Wisconsin and Indiana adhered to the gang bath and toilet facilities while Michigan State seems to standardize on the connecting bath between two double rooms. We saw no installation of private baths.
12. Parking - Michigan State and Wisconsin did not provide parking for dormitory students. Indiana provided 35 percent parking spaces for men students and 5 percent for women students. They plan to go to a straight 17 percent parking space in the newer dormitories. Whether this means a total reduction or the establishment of an average to provide some flexibility of housing men or women in each unit was a little vague.
13. Private Dormitory Construction - Extensive and interesting discussions occurred in the areas of college financed and privately financed off campus dormitory housing. Wisconsin claimed that they had "lots of problems with these people." A lengthy conversation failed to reveal any serious problems within the province of the college. "Problems" consisted largely of the fact that the going rate for room and board in privately financed off campus housing ran from \$1,350 to \$1,500 per year and that the turnover rate was "excessive." Neither of these problems relate to the direct responsibility of the university and it is quite obvious that at Wisconsin such rates were realistic and marketable inasmuch as a considerable amount of private housing is under construction. Further examination of this problem revealed that Lowell Hall, a privately financed off campus dormitory, had as good a return rate of students as did the college dormitories. This was the most expensive unit in Madison and provided without apology luxury housing, including an indoor swimming pool, table service in the dining room with menus including steaks, lobster thermidor, etc., air-conditioned rooms, partial maid service and attractively laid out spaces with built-in furniture, etc. The management claimed a turnover rate of only 50 percent per year, which was about average for campus housing. Wisconsin claimed that there were problems of management, but could cite no specific example where the environment or the atmosphere provided by private dormitory housing off the campus was detrimental to the welfare of the student. In fact, it was impossible for me to observe where difficulties lay, except that they lacked administrative control of the units. There would appear to have been some reasonable effort on the part of the better operators to maintain a fine working relationship that was acceptable to the college. In fact there was no choice, because if the operation was not acceptable to the college, the housing would be declared out-of-bounds and the units put out of business.

Michigan State had no experience with privately financed off campus housing and apparently did not wish to have. It was my personal opinion that they did not want to have anyone interfere with their operational empire and administrative prerogatives.

The University of Indiana had no experience with privately financed off-campus housing of the dormitory type. One unit was currently being built and reference was made in very disparaging terms about the management and the entire organization. It seemed hard to justify this attitude inasmuch as admission was made that their brochure sounded like it had been "written by our staff and that they copy everything we say." The cost in this new unit will be \$1,500 a year and they provide an indoor swimming pool.

14. High-Rise Housing - One of the greatest disappointments in this entire trip was that it had been planned in order for us to examine at first-hand some high-rise housing. None of the three schools that we visited have any high-rise housing. Wisconsin has two towers under construction that could qualify and Michigan State has two similar towers in the very early stage of construction. The term itself is misleading and obviously is subject to wide interpretation. The extension of the normal dormitory plan from four stories to twelve stories does not automatically make it a high-rise dormitory. The term refers to basic design and not merely to number of stories.

The fatal weakness in all of the dormitories we saw was that they simply became bigger and more inhuman in scope and scale as the number of people and stories were increased. Furthermore, Michigan State University realized no advantage by going to a greater number of stories. The complex currently under construction will ultimately house approximately 3,700 students and it occupies a site of approximately 41 acres without any significant parking space. This is not realistic from any standpoint. I believe that the tower concept of high-rise apartments or high-rise dormitories is essential to the basic definition of the term because "high-rise" itself implies a density of housing and not just a number of stores.

15. Surface Transportation

All three colleges prohibited miscellaneous willy-nilly driving within the confines of the campus. Parking is provided at remote locations at Wisconsin and the university operates a bus system on a contract basis. The busses reputedly ran at 6 minute intervals and would seem to have operated on about that schedule, even though the weather was miserable when we were there.

Michigan State provides parking for dormitory students and other students at very remote locations and runs its own bus system. Busses reputedly ran on three minute intervals and would seem to have maintained that schedule. Frequently I observed a full bus leaving a bus stop just as an empty bus pulled up behind it.

Indiana did not operate its own bus system, but permitted the public transit system to operate on college streets. This enabled the public transit system to remain in the bus business and enabled the Indiana University to stay out of the bus business. This seemed to be a very happy situation for all.

16. Conclusions

I believe that we could well consider the scope of our planning in several areas. We should question seriously the following practices:

- a. Continuation of building lavatories into the room.
- b. Continuation of building as much storage space as we have in the past.
- c. Continuation of providing built-in beds.
- d. Continuation of built-in chute charged incinerators.

In addition to the foregoing, I believe that we should seriously consider the following changes:

- a. Installation of small floor lounges or study rooms and miscellaneous spaces, such as typing spaces, etc., at a modest level.
- b. Provision of cleaning tools and equipment for the students.
- c. Provision of linens to the students.
- d. Elimination of dormitory residential requirements for all students, male or female, over 21 years of age.

17. Recommendation

Recommend that we establish a body of data similar to Wisconsin "Proposed University Housing Construction" chart and abide by it to encourage privately financed off-campus housing (see N. J. Smith chart - 19 September, 1963)

It is not reasonable for Texas Tech to assume total responsibility for future housing of student population, nor is it reasonable for the college to disclaim total responsibility. Therefore, we should, in my opinion, try to arrive at some middle-ground solution providing joint responsibility and opportunity on a proportional base. It is understood that all dormitory-type housing would necessarily adhere to the same operational restriction and regulation.

TRIP MADE TO VARIOUS UNIVERSITIES AND COLLEGES TO VIEW THEIR  
RESIDENCE HALL FACILITIES AND PRIVATE OFF-CAMPUS HOUSING

John G. Taylor

Sunday, January 31, 1965 - Mr. Nolan E. Barrick, College Supervising Architect, Mr. Guy J. Moore, Director of Residence Halls, and John G. Taylor, Business Manager, flew to Madison, Wisconsin, and on Monday, February 1, met with Mr. Newell Smith, Director of Housing, Mr. Larry Halle, Mr. Lee Burns and several other staff members.

The morning session was spent in Mr. Smith's and Mr. Halle's offices discussing what the University of Wisconsin is now doing in housing and looking at plans for some future projects, some of which were under construction. Mr. Barrick has some schematic plans. A great deal of the time with Mr. Smith was spent discussing the off-campus housing at Madison. Attached to this report is a concise report of the situation in private housing at Madison and covers generally the information given to us by Mr. Smith and his staff. This article appeared in the Milwaukee Journal, Sunday, January 31, 1965. In addition, Mr. Smith gave us a copy of a paper given by Mr. George S. Murphy, Assistant Dean of the University of Wisconsin. Mr. Smith said this paper covers the pitfalls of private housing and we should read it. Mr. Emory Foster at Michigan State mentioned the same paper.

Mr. Smith estimates that there are about six private houses with a capacity of 200 students, approximately 50 that will house 100 students each and some that will house more than 200 students each. He said the money is coming from Chicago, Milwaukee and syndicates in other cities, but in most cases some local capital is used.

Off-campus housing used to be under Mr. Smith's jurisdiction, but was removed a few years ago and set up as a separate department. However, it appears that the University is going to put it back into his realm of authority. This department furnishes the students a listing of the off-campus housing, inspects the housing and gives them approval, along with some other duties. Mr. Smith says that the University has lost control of the off-campus housing and suggested that, since we at Texas Tech are not in the private housing business yet, we should be very sure that we set our ground rules as to what the College will do and expect from the people who put up private housing. He pointed out that the people who invest in private housing are interested in only one thing, and that is to make a dollar. In Madison the houses are crowded so closely together that the students do not have any recreational area outside of the buildings. As a result, the students have to get out into the narrow streets to find places to play football and baseball. After seeing the narrow streets and the crowding of the facilities, I can see what Mr. Smith was talking about. He says there is a movement on in the city council of Madison requiring future housing to provide a certain amount of recreational area, and that the University in some cases is going out in town and buying up land to insure that the students living in the surrounding houses will have the needed recreational facilities. This is one thing we should watch for here - that is, try to work with the City Planning Board to see that any private housing built off campus provides the needed recreational space for the students.

Parking is another problem that has never been solved at Madison, or anywhere else, though the University is building parking lots far from the academic buildings and is running a bus service at this time.

The University of Wisconsin is now housing about 25 percent of its students and is still encouraging private housing if it is built and supervised properly. The fraternities house approximately 10 percent of the men and the sororities house approximately 5.9 percent of the women. The student union is catering the meals to about 10 of the fraternities and sororities. Mr. Smith said that the percent of students the University will be housing will be increased, but no set percent has been established, though it probably will be 50 percent. The University has reached the point that they now have a policy that any student who is a senior or is 21 years of age may live off campus if he chooses.

Attached are samples of the charts showing predicted enrollments, housing construction plans for the next five years and other information which the University makes available to all interested parties, but makes it clear that this is simply the best projection the University can make. Last spring, one of the legislators decided that the University should not take any more out-of-state students; therefore, he had a bill passed limiting the number of non-resident students the University can accept or house. This, of course, has thrown off the University's estimated enrollment figures and housing needs and, in turn, caused some of the private housing to come up with more vacancies than anticipated. Mr. Smith said, of course, the University has received all the blame for this action. He stated that the local paper and school paper have printed both sides of the situation, and he did not think the University had suffered too much. Mr. Smith said that the off-campus housing that has been successful has had good supervision and has done something for the students. Those that have tried to cut corners and get by with a pinch-penny operation have found themselves in trouble, as the students will not remain in these houses very long. The maximum rate for room and board at the University of Wisconsin at this time is \$870. The private housing is running from \$1,300 to \$1,500. Lowell Hall, which is one of the nicest halls off campus and one which we saw, is presently charging \$1,500 for the school year and is going to \$1,540 next fall. This is the building owned and operated by Mr. Robert Levine, who is also consultant-director of Bromley Hall which is being constructed on the edge of the campus at Ohio University. A brochure in color showing Lowell Hall and the various areas inside the building is available in Mr. Taylor's office.

Mr. Levine was out of town, so we were disappointed in not getting to talk with him.

A complete list of room and board charges established at the University of Wisconsin is on file in Mr. Taylor's office.

After having lunch with Mr. Smith and his staff in one of the residence halls dining rooms, we made a tour of some of the University's residence halls and looked over some new halls under construction. The residence hall which was most impressive to the group was Chadburn Hall. Mr. Barrick and Mr. Moore will have the details in their reports. The people at Wisconsin have started putting in larger and slower elevators which travel approximately 300 feet per minute, and they try to have approximately 600 students to a bank of elevators.

Since we spent most of the time at Madison, Wisconsin, discussing private housing off campus, we did not get much information about financing of residence halls on the campus. However, we did find out that the University has sold many of its bonds to the public. Most of the buyers have been from the Milwaukee and Chicago areas.

February 1, 1965 - The party flew from Madison, Wisconsin, to Lansing, Michigan, Monday night and met with Mr. Emory Foster, Director of Housing, Mr. Lyle Thorburn and other members of Mr. Foster's staff at Michigan State University the next day, February 2. Since Mr. Foster was trying to get out of town for a vacation after being ill, we spent the morning with him and then he turned us over to other members of his staff for a tour through some of their residence halls. Mr. Foster gave us an on-campus housing map, which is attached, on which I have recorded the capacity of the various residence hall complexes. On file in Mr. Taylor's office are brochures and financial reports showing the debt service and operating expenses of the residence hall system at Michigan State University and a brochure put out at the central food stores supply center of the University. It shows the layout of their central food operating, including a table of organization of the dormitory and food service division and the department of residence halls. Mr. Barrick and Mr. Moore have a good number of other items, such as copies of floor plans and drawings of residence halls.

At present, Michigan State University houses more students than any other university. This includes a great number of married student apartments. Most of the single student residence halls have been built in complexes, or sometimes called centers by Michigan State people. Mr. Foster said that the president of the University has approved the construction of two tall, high-rise towers with 14 floors, which will be in a complex with four other residence halls and a commons building already constructed and in operation. This entire complex will cover approximately 41 acres, which we deemed too much land for the complex. The present four residence halls will house 2,448 students on a coeducational basis. The two new towers now under construction will house 1,214 more students,

making a total of 3,662 students in the complex. Mr. Barrick and Mr. Moore can add more information in this area. Mr. Foster said that after the president had approved the construction of the two high-rise towers, he decided he did not want any more that high. I asked Mr. Foster what they were going to do about more land if they could not go higher in their buildings. He stated that they had no problem, as they just condemned more land when they needed it. It seems they have been doing this all along, and the people in Lansing are used to it.

A few years ago, when the state of Michigan was not providing enough money for educational facilities and salaries, Michigan State University constructed classrooms, foreign language laboratories and faculty offices within their residence hall complexes. Some of the later buildings constructed have as many as six to eight classrooms, laboratories and lecture halls. The people at Michigan State seem to think the arrangement is working well, but later, while we were at the University of Indiana, we were told that the faculty at Michigan State was not very happy. Their story was that a history professor officed and teaching his courses in one of the residence hall complexes was probably a mile or so from the other educational facilities and his department, and the professors were very unhappy being out by themselves.

Mr. Foster took us on a tour of the campus, which is very spread out as you can see from the attached map, and took great pride in showing us the central food facility. Ours is a great deal like the one at Michigan State. However, they have a meat processing setup where we have a bakery shop.

During the afternoon, we visited various residence halls and looked at the student rooms. Some were two-student rooms, four-student rooms with a connecting bath, and what they called a studio suite of rooms with a bath. None of the rooms or arrangements we saw at Michigan State were as pleasing to us as our own, and we think they have made mistakes in some of their arrangements.

Mr. Foster told us that there is practically no off-campus private housing at Michigan State and that Michigan State is building its residence halls with HHFA funds, though many of its bonds are selling to private buyers in the cities in Michigan and in Chicago. Michigan State is in a position to provide the needed coverage, as it has numerous dormitories and other facilities paid off which are pledged to financing other projects.

Michigan State is really spread out. They are building dormitories now on the far edge. Some parking lots appear to be a mile or so from the campus proper. A bus service runs every six minutes to all points of the campus. The students pay for riding the bus on a school-year basis, if I remember correctly. I believe Mr. Moore has some brochures and information on the parking and traffic regulations at Michigan State.

February 2, 1965 - The group traveled Tuesday night from Lansing, Michigan, to Indianapolis, Indiana. On Wednesday morning, we rented an automobile and drove to Bloomington, Indiana, where we had a nice visit with Mr. George R. Olsen, Director of Residence Halls, Mrs. Alice Nelson and other members of Mr. Olsen's staff. Mr. Olsen furnished a map of the Indiana University Bloomington campus and gave us two publications covering residence hall construction from 1947-1955 and 1955-1963. A third publication, "At Home at Indiana," was given to us, and it includes a great deal of information about residence housing at Indiana. Many other items were included in a packet Mr. Olsen made up for us, such as a table of organization, a copy of their student contract and a list of room and board rates. Mr. Moore has these items.

The meeting began with a review of some of the plans for residence halls now under construction at Indiana, then we made a tour of a good number of residence halls. The halls were rather empty, as registration for the spring semester did not begin until the next day.

We saw a great variety of living accommodations for students, but none of the rooms, we thought, compared with those at Texas Tech.

During the latter part of the afternoon, Mr. Moore and Mr. Barrick were taken on an inspection tour of some of the halls while I met with a gentleman from the Business Manager's office who handles most of the bond issues for the

residence halls. He gave me a copy of the information for prospective bidders on a \$3,400,000 bond issue made in 1962, which lists all of their bond issues to date with all the housing used in funding the issue and a lot of other interesting information. This particular issue in 1962 sold one-half to the public and one-half to HHFA. The University of Indiana has built quite a few of its residence halls and apartments with the aid of HHFA funds. However, they have quite a few bond issues where they have not bothered starting with HHFA and have had no trouble selling these issues. The last issues, which is a series 1964 issue, was sold entirely to the public at interest rates of  $3\frac{1}{2}$  to 5 percent with an overall average of 3.621. The issue was a total of \$7,325,000 and these were first mortgage bonds. Another series of 1961 in the total amount of \$6,725,000 sold at an interest rate of  $3\frac{1}{2}$  to  $3\frac{3}{8}$  with the public buying \$4,100,000 of the bonds, HHFA buying the balance. Indiana University is in an enviable position, as they have many of their older halls paid off and are able to fund these other issues without much difficulty, although their room and board rates are considerably higher than ours. I asked Bob and Mrs. Nelson how they were able to sell so many of their bonds to the public. Mrs. Nelson told me they have a friend of the University who is an ex-trustee who helps sell the bonds to syndicates, insurance companies, banks and other organizations in Indianapolis, Chicago and other places. It may be that we need somebody to help us sell our issues and not depend entirely upon the professional bond buyers and sellers.

Bloomington is approximately the same size as Lubbock, and there is a small amount of off-campus private housing. On file in Mr. Taylor's office is an application form and a brochure on what is called "The Poplars, Hall of Residence for Women," which is being built and will operate the same as Lowell Hall at Madison, Wisconsin, and as Bromley Hall at Ohio University. This hall will rent for \$1,500 for the school year.

I asked Mrs. Nelson why they were not going to a taller residence hall, as they are presently staying with 9 to 14 stories. She said that they prefer not to go any higher, for the time being, but they know that eventually they and all other universities and colleges in the country will have to start going higher. I asked her how they were going to get enough land to keep expanding like they are. She, like the people at Michigan State, said they condemned property as they needed it and that they had had no problem so far with this procedure. Mrs. Nelson suggested that we stay out of the private off-campus housing as long as possible.

At all three of the universities we visited, we did not find any student rooms as well equipped and arranged as those at Texas Tech, although we did see some things that might be good innovations if it becomes necessary to economize. Even in the private housing residence halls off campus, we did not think the rooms were much larger than ours, and we did not think they were furnished any better than ours. All three of the universities are furnishing bed linen to the students and running their own laundry. Laundry rooms with washers and dryers are furnished to the students. At the University of Wisconsin and Michigan State, the students pay 35 cents per load for the washing machine and get the drying free of charge. It was explained that this keeps the students from taking their damp clothes to their rooms, hanging them up and letting them drip all over the floor. At Indiana University they charge 20 cents for washing and 10 cents for drying.

We noticed that all three universities usually provide some type of lounge or study area on each floor of the residence halls and about the same number or more recreational or lounge areas on the main floor or basement than we do. Many of the residence halls have game rooms and separate TV rooms in the basement. Nearly all of the residence hall complexes have some type of snack bar. I think the lounge areas in our new halls at Texas Tech are as nice as or better than those we saw, although Mr. Moore says that now some of our students wish our lounges were divided into some smaller areas instead of the one large lounge.

Where possible, we looked at incinerators or other methods of trash removal from the residence halls. At Wisconsin and Michigan State, the trash is sent down a chute, where it is collected and hauled off in smaller containers than we use at Texas Tech. The containers are on casters and can be rolled out of the building to a loading area, where the truck can pick it up and empty it. Indiana University does use the incinerators, and they say they have had no particular problems with theirs. Mr. Barrick has more information about this.

Mr. Barrick, Mr. Moore and I have come to the conclusion that the residence halls at Texas Tech are, in most respects, as nice as those we had seen at three of the largest housing centers and complexes in the country. There are some things we can improve on, and we feel that some better arrangements of the floors with the bathrooms and elevators rearranged somewhat, would give us even better residence halls.

All three of the institutions have gone to 15-minute breaks between classes.

Freshman and sophomore students may not have cars at Indiana University.

Mr. Moore visited two other schools, Illinois Normal and Southern Illinois, before returning. He has pictures and drawings of a 17-story residence hall under construction at Southern Illinois.

/s/ John G. Taylor

## New Private Dorms Sprout Off Campus

By VINCENT BALDASSARI  
Of The Journal Staff

Madison, Wis.—The swimming pool in the eight story building on the edge of the University of Wisconsin campus is a sign that this is no ordinary student dormitory.

It is, in fact, Lowell hall, a "Student-Hilton" dormitory which—at \$1,500 a year for room and board—provides the highest priced housing at the university.

The brown brick structure is one of the plushier developments built after a recent interest by private firms in a field which has been handled largely by the colleges themselves or by fraternities, sororities and small scale boarding house operators.

### Cost Is High

The price of room and board at Lowell hall for a school year is nearly twice as much as the \$870 maximum at university operated dormitories.

That's why, said A. W. Peterson, vice-president and trust officer for UW, there's probably room for only one such project on a campus. Its 185 rooms, however, are completely filled, mostly with out of state students.

For their money, the girls get the olympic sized swimming pool, television and study lounges on each floor, full time maid service, coin operated hair dryers, a fully equipped laundry, an ironing room with boards, full time maid service, and service at meals by 60 student waiters.

### One of Dozen

The rooms are 13 by 17 feet and have built-in desks.

a dozen large, new dorms for males, females or both that have sprouted around the campus in the past four years, quadrupling the number that had been built in the 40 years previous. These all have 100 or more rooms.

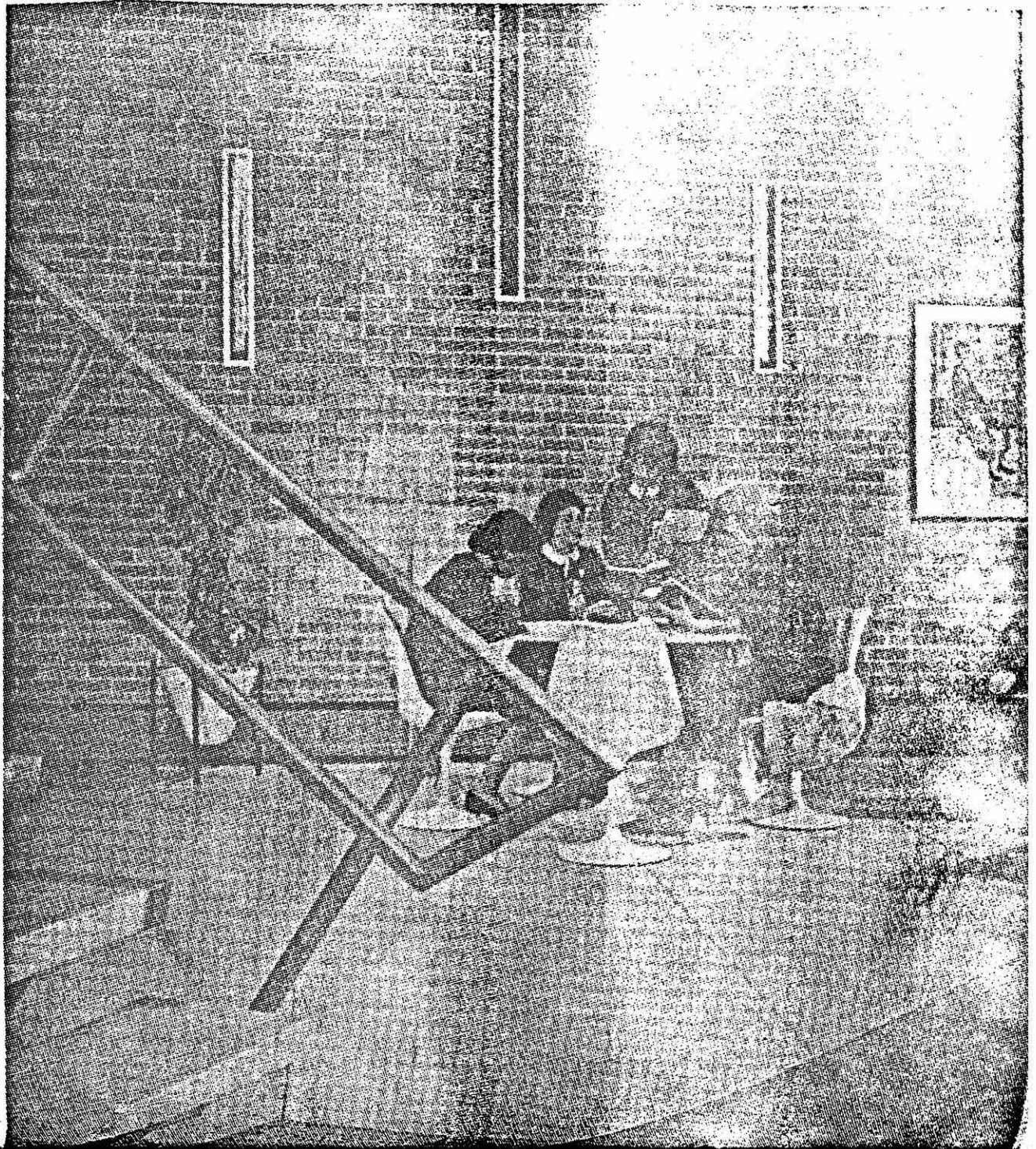
The University of Wisconsin—Milwaukee has no such private dormitories now but may have some later. The city planning staff is about

six months away from recommending that the common council change the zoning of the area around the university to encourage such developments.

The zoning ordinance requires so much square footage for each residential unit now that building a high dormitory building would be prohibitively expensive. Nonetheless, university spokesmen say that more than a dozen inquiries have been made by developers who are anxious to build such dormitories.

"We are also waiting for

Turn to page 14, column 6



# Around UW Campus

we don't guarantee occupancy for them, or even that our estimates of enrollment will be accurate," said Peterson.

In any case, Peterson said, increasing enrollments in the next few years would easily take up the slack, and more so.

Meanwhile, Milwaukee's Northwestern Mutual Life Insurance Co., which has made commitments to invest 20 million dollars in 11 private dormitory projects in the last two years, is not making any more such loans at the moment in Madison.

## Vacancies "Not Alarming"

"We are concerned, but not alarmed, over the high vacancy rate there," said a company spokesman, adding: "It's possible there has been overbuilding there now, but generally it is a favorable market as one can see from the population curves. Privately financed student housing has taken on the aspects of a major program."

Unconcerned about the present vacancy rate is Joseph J. Zilber, head of Towne Realty, Inc., of Milwaukee, which has a huge, eight story building for 873 male and female students under construction in Madison, to be ready for the Sept., 1965, semester.

Towne has opened three others here within the last four years—the Towers Allen and Kent halls. It is also constructing an 18 story dorm on the University of Michigan campus and is considering another at the University of Minnesota.

for women in the past, some of the new dorms will include male students, and some buildings have been built for men only.

## Fathers Pay Bills

"There are several reasons why developers prefer to build for female students," Peterson said.

First of all, they know the parents will be footing the bill, thus the income is more secure. Then, while male students are allowed to live almost anywhere, fathers insist that their daughters live in supervised facilities.

A national building magazine put it this way:

"A group of male students may show the same consideration for property as a group of cowboys on their monthly visit to town. If you (the developers) build for female students, install more mirrors and a prestige waiting room for their dates, but keep it durable, and sound control is a must."

Peterson said the market was less good for graduate students and married students, who do not care to live on dormitory schedules and can find dwellings in town.

## Sees National Trend

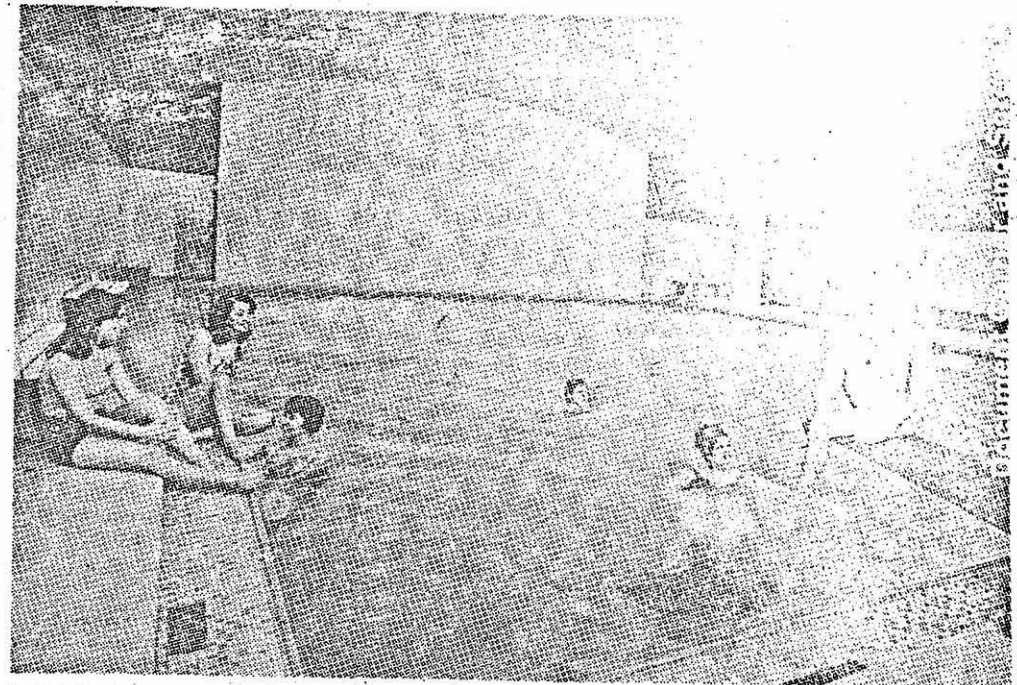
Big developers all over the country have seen the possibilities in this construction field and are moving in, according to The Wall Street Journal.

Tishman Realty & Construction Co. of New York will build a plush dormitory for 581 men and women students at Ohio university that will charge \$1,400 a year for room and board when it

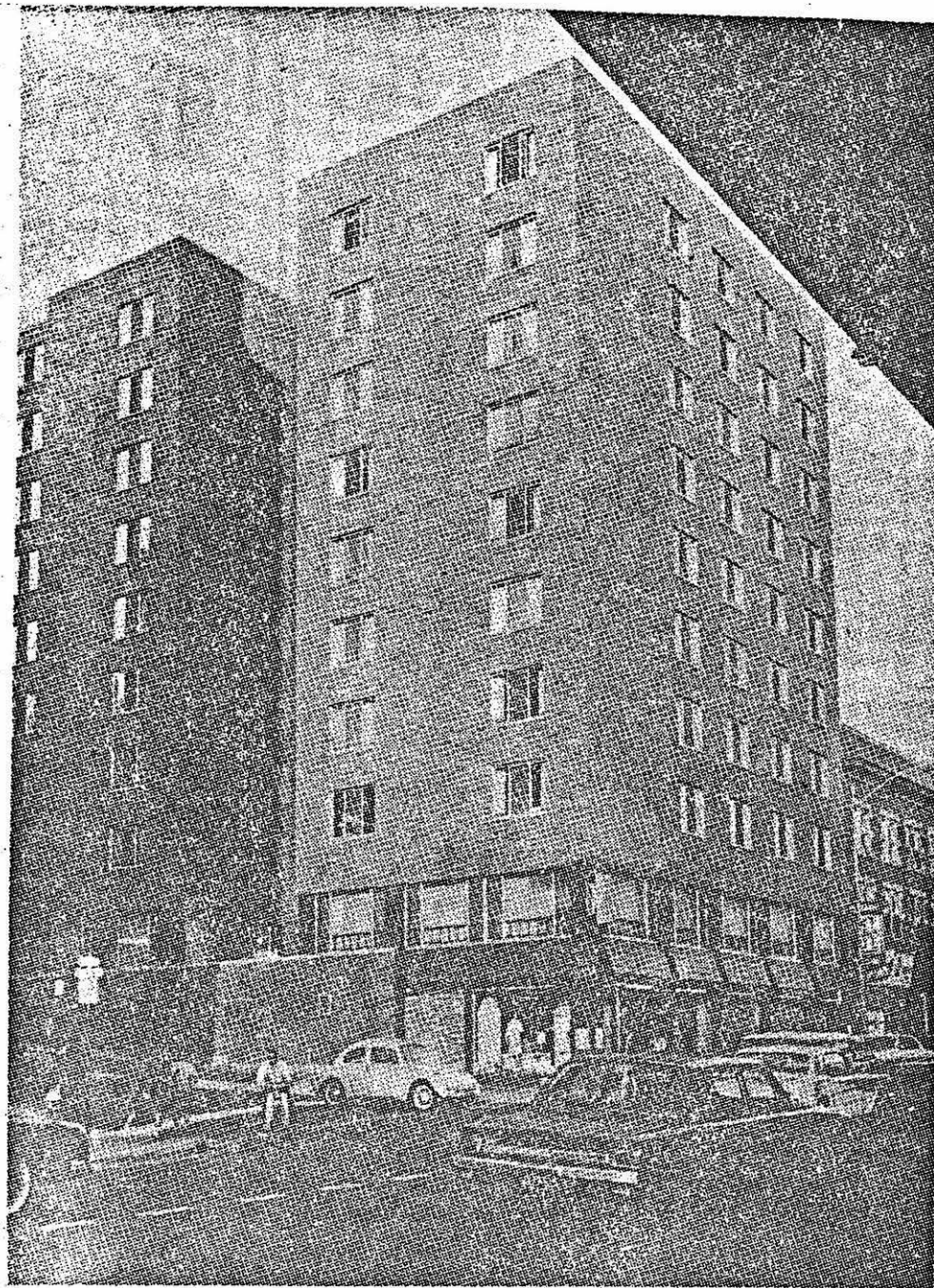
land for a second dorm at a Big Ten university, and has four others in the planning stage. By the end of 1966, Tishman expects to have invested 30 million dollars in college housing.

George W. Warnecke & Co., a big New York mortgage broker and builder, sees prospects of investing more than \$150 million in campus structures over the next two years.

Other firms in the field include the Del E. Webb Corp., Phoenix; the University Dormitory Development Co. in Chicago; Southern Area Developers, Inc., of Bloomington, Ind., and Plez Lewis & Son, Inc., a St. Louis construction firm.



Some of the dormitories include recreational facilities, such as this swimming pool in Lowell hall. The pool is suggested as a method to relax during exam periods.



Typical of the tall, new private dormitories that have sprung up near the University of Wisconsin campus in recent years is 10 story Allen hall, home of 250 coeds. Opened in 1962, it is located on State st., a busy commercial location that is a contrast to university dormitory settings.

# Private Dorms Sprout

From page 1, column 3

definitive plans from the university on the direction in which it may expand in the future," said Carl Quast, acting Milwaukee planning director. "This is all part of the master plan study and the rezoning of the entire city."

Private firms are attracted by rapidly expanding demand for student housing at a time when other residential construction shows tendencies to slacken. Many developers are lured, too, by potentially high returns.

Just to keep pace with their doubling enrolments, American colleges which in 1960 housed one million students will have to build housing for at least another million by 1970. This means that more student housing will have to be added this decade than has accumulated

in the United States over the past three centuries.

## More Work Encouraged

"We welcome and encourage private developers because we can't possibly provide all the housing that is needed," said Peterson, adding: "The only thing is that we'd like to see the cost to the student lowered from the present \$1,100 to \$1,500 range. We admit, however, that it would be difficult for developers to do this."

Peterson explained that whereas the school paid no personal property or real estate tax on its housing, the developers did. Also, the university gets construction loans at a much lower interest rate.

The attraction to private developers in Madison has been so strong that there is currently an oversupply of student housing.

The estimated average vacancy rate is 16%. The private developers in the area, through their Independent Housing association, have complained that the university made the situation worse by liberalizing its rules last spring on allowing students to live off campus.

## Part of Campus

(The private dorms are, for all intents and purposes, on-campus facilities since the students are supervised according to university living and social regulations and actually are under university jurisdiction.)

The university counters that the developers were probably misled by the estimate that 27,100 students would enroll last fall, when only 26,300 actually enrolled.

"It's true that the developers have to bring their plans to us for approval but



One of the most architecturally striking of the privately built and operated dormitories is The Towers, a recently completed 10 story building for coeds. It is also located on busy State st., just off the UW campus. The first two floors of the building are rented out as commercial space.



Coeds Vicki Morris, Davenport, Iowa, and Susan Halpern, Green Bay, studied in their room at Lowell Hall, an eight story structure built in 1960 with 185 rooms. Room and board is \$1,500 a year. Rooms are 13 by 17 feet and have built-in desks, storage chests and bookshelves.

—Journal Photos



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—Journal Photos

## OFF-CAMPUS HOUSING: THE NATURE OF THE BEAST

I have spent the last year as a worker in a neighboring vineyard and my absence from your most immediate concerns presents an equal number of advantages and dangers.

I have had a year to reflect on off-campus housing, a luxury I could never afford when I was living with it daily - and this is something of an advantage I think. But my "seclusion" may well have produced in me a tendency to oversimplify - and this can be dangerous. I doubt that these months away from your wars have made me any brighter, but I do think they have improved my perspective slightly with the result that I understand a few things a little better - and this is an advantage too. At the same time, the fact that I no longer have the day-to-day contact with private housing, the fact that (in this sense) my world isn't nearly as real as yours, may also have clouded my vision or blurred my focus - and this too is a problem.

But I want to look back, over my shoulder, anyway. And I am going to do so in what I hope will be a more objective, more critical fashion than I could muster when I was caught up in the middle of things. I want to say some things about off-campus housing that I've not heard said before and which need saying all the more because of that. I expect to share with you some blunt generalizations which I think are meaningful and some frank conclusions which I hope will be helpful. I will talk for about 15 minutes and you will be listening - I trust none of you will finish before I do.

Let me generalize first. Very honestly, I'm not at all sure I really understood off-campus housing in the time I was at the University of Wisconsin and I suspect it would have helped if I had. I'm not sure that I really understand it even now but I've since been able to draw a number of working notions and one or two may just make some sense. Because I will be generalizing, I may exaggerate or overstate a bit but not, I think, very much.

I'll start with the nature of the beast which is privately-owned and operated student housing. And my hypothesis is not complicated.

Basically, I am convinced that off-campus housing at any college or university is in natural conflict with the institution itself; and that the success of any such housing program depends entirely upon the degree to which the private housing sector is itself willing or can be forced by the institution to end hostilities. Not a pleasant starter perhaps but, as proof of this theory, consider these generalizations:

1. As to quantity housing: It is in the best interests of an institution to have available sufficient numbers of spaces to house all students who want to be housed and, in fact, to have a limited oversupply of space to assure at least a modicum of choice to students. In contrast, it is in the best interests of the private housing sector, or so it would appear from my observation of that group, to create (artificially if necessary) a constant sellers' market, intentionally limiting housing supply to insure full occupancy with the result that good space is perennially in short supply and students seeking reasonable choice are continually frustrated.
2. As to choice of housing: It is in the best interests of the institution to provide students with a wide variety of kinds of housing, facilities and price consistent of course, with its educational objectives; ideally, private housing would augment the choices open to students, innovating rather than duplicating dormitories and residence halls. It is apparently in the best interests of the private sector, on the other hand, to copy the type of housing offered by the institution, to vary from that pattern minimally and peripherally, to limit student choice to housing kinds which are tried and true and which require little if any risk. And there has

recently developed an exception to prove this rule (an exception which may well become a rule itself): where, for any reason, it is not in the interests of the private developer to mimic the institution (and that's usually because someone else has beat him to it), it is necessary to shift as far from that norm as possible; the obvious result of such variance is the wide-open apartment which denies responsibility and leases, instead, license under the term, "freedom."

3. As to price of housing: It is in the best interests of the institution to provide student housing at the lowest price possible consistent with adequacy of facilities. The private sector, however, appears dedicated to securing the highest possible return on investment, a prospect which is enhanced by maintaining a scarcity of space and an unbelievable consistency of price throughout the student housing community. The practice of charging whatever the market will bear, alien to any institution, is axiomatic with the private housing sector.
4. As to quality of housing: The interests of the institution require adequate housing that is safe, comfortable, convenient and designed specifically for the students who live there. Physical plant, like price, should probably run from reasonable comfort to Spartan simplicity. Recreation areas, both inside and out, should be at least ample. Housing quality, in other words, should be tailored to student needs and student budgets. The private sector, in contrast, sees its interest best served if housing quality is either marginal to bad or sumptuously elegant with the middle ground virtually unknown. Private housing tends to cluster at the extremes - so poorly built and maintained as to breed a touch-and-go relationship with institutional and local building requirements or so luxurious as to create an artificial structure of affluence in a setting which depends instead on intellect.
5. As to housing function: It is the best interests of the institution to provide student housing which will complement the educational process in every sense of the term; to offer plant, program and personnel that recognize as their major function making a better student and a better person of the student-resident. With the private operator, primary interest seems to rest in providing the rudiments of shelter in a structure designed not for students but for flexibility of use and to do so with a minimum of time, effort and inconvenience. All too often, the private sector minimizes the residents' major purpose or ignores it altogether.
6. As to residence contracts and leases: The institution generally sees its interest best served by recognizing, directly and without haggling, the peculiar nature of a student tenancy and by developing its contractual provisions accordingly. For its part, the private sector emphasizes the business it is running, thank you, and insists upon impressing student tenants with the solemn financial lessons which are part of living in this world. All of this is just a complicated way of saying: "If I've got your money, you're free to go!"
7. As to the relative role of off-campus housing: Institutions that have thought it through tend to view the private sector as something of a cooperative partner in an exciting venture, called into service to supplement the institutional building program and sharing its concern for the long run. Almost universally, off-campus entrepreneurs (who voluntarily entered the field) see their unhappy lot as one of being forced to compete for student dollars in a contest which is patently weighted in favor of the institution and which, accordingly, drives them to seek every possible concession that might help balance the scales and guarantee greater immediate gain.

I could go on with my listing as could most of you. But I'm not sure it's necessary and I doubt that any useful function would be served if I did. If I have disturbed you, then I have likely made my point. Let me restate my basic law of off-campus housing:

The private housing sector, in the nature of things, is at odds with its host institution. It can play a valuable and a useful role in the college community only insofar as it is itself prepared or can be required to coexist peaceably.

Now let me shift gears if I may. Having discussed with you in general terms the nature of off-campus housing, I should like to suggest a series of ground rules which make living with the beast possible if not entirely pleasant. These are the conclusions of which I earlier spoke and, again, I want to call a spade a spade.

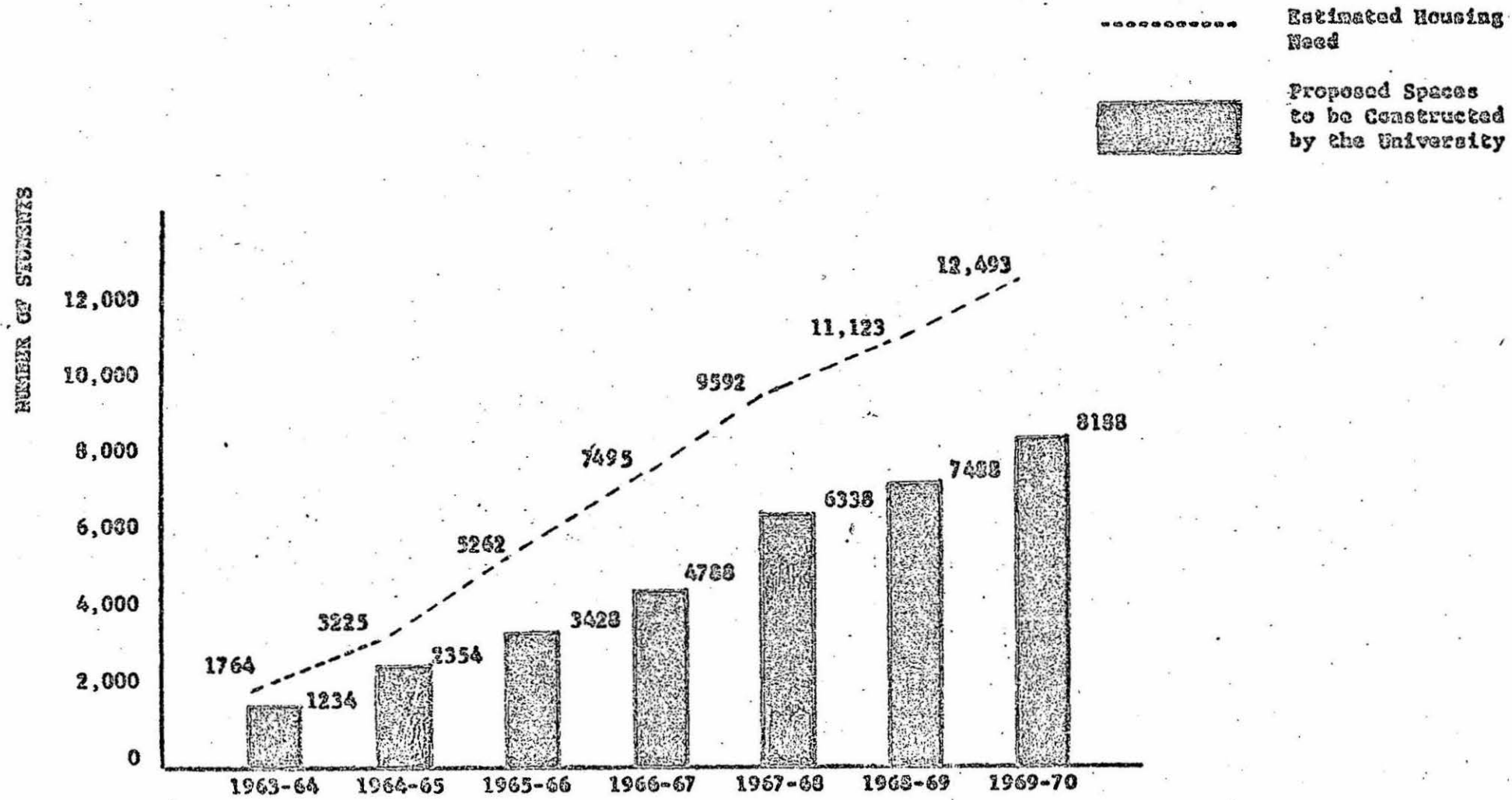
1. Beware the inadvertent commitment: The private housing developer invests in student housing for one excellent reason and it does us no service to hide from that fact: not only is he interested in making money (which is a perfectly legitimate pastime), but he likely believes he can make more of it or make it faster in student housing than he can on the stock market or at the race track. While his decision may appear to be a godsend to the institution, he is doing himself or the enterprise he represents the real favor. And, because he is good at his job, he will ask the institution to guarantee his occupancy, to adjust its own building program, to run his building, to give him land, to collect his bills, to do any of literally dozens of things which will make his success more likely. So beware the inadvertent commitment - and the best way, I would suggest the only way, is to tell him and write him and repeat for him at regular intervals that he is providing student housing at his own risk; you will advise him, you will assist him where possible, but he is entering the field voluntarily and on his own. The institution assures him of nothing, unless of course, you are prepared to help him make money, in which case I wish you luck with your students and in your next job.
2. Know what you want from the private housing sector and refuse to settle for anything less: This is your obligation as an institutional representative, pure and simple. The private entrepreneur will either know little and want your studied advice or he will know a great deal and need it even more. You, not he, know the nature of your campus, the legitimate needs of your students, the role you want off-campus housing to play in your academic community. You are fortunate to be operating in an institutional market, not a builder's, and if this one won't do the job you want done, the next one likely will. In student housing, million dollar mistakes last a long, long time! And they tend to discourage knowledgeable investors.
3. Define your terms: Take the time to think through the role of off-campus housing in your setting - what do you expect of it educationally, in terms of physical plant and facilities, in terms of services, insofar as cost and contractual matters are concerned? Define the role; then make that role absolutely and unambiguously clear; and stick to that role because it is reasonable and just and consistent with the goals of the institution you represent. And let me underline here the preeminent authority of the institution - unless you willingly exercise the control over private housing which every ounce of common sense tells you is imperative, this is one beast that will be licking its lips while everyone else is looking for you - some of you have seen it happen.
4. Learn to live on a volcano: If the private housing sector is, by definition, normally at odds with the institution (and I have already made clear my conviction that it is), then an occasional eruption is to be expected. At my old alma mater, there presently exists something of a flap over expected vacancies in off-campus housing - and the guy who is making the most noise in bitterly attacking the University has in his desk a letter I wrote him exactly a year ago warning that if he built a unit for 660 coeds he would flood the market. He did, and it is, and he and I know who turned on the water; but we both also know that the institution must always appear to be the villain. And we both know that the shouting will soon die down and his colleagues in private housing will discover the obvious - they won't admit it but they'll know. And the world will go on, and it will happen again.

You have been both patient and kind. If I have been too critical, I apologize. But it's good to be back at the old store again, and reminiscing often produces pretty fantastic yarns. You have given me the opportunity to say some things that I believe need your attention. I will stop talking now and those of you who are still listening may stop also.

A paper delivered at the annual meeting of the Association of College and University Housing Officers at the University of Michigan, August 3, 1964, by George S. Murphy, Assistant Dean of Students, University of California, Berkeley.

# PROPOSED UNIVERSITY HOUSING CONSTRUCTION

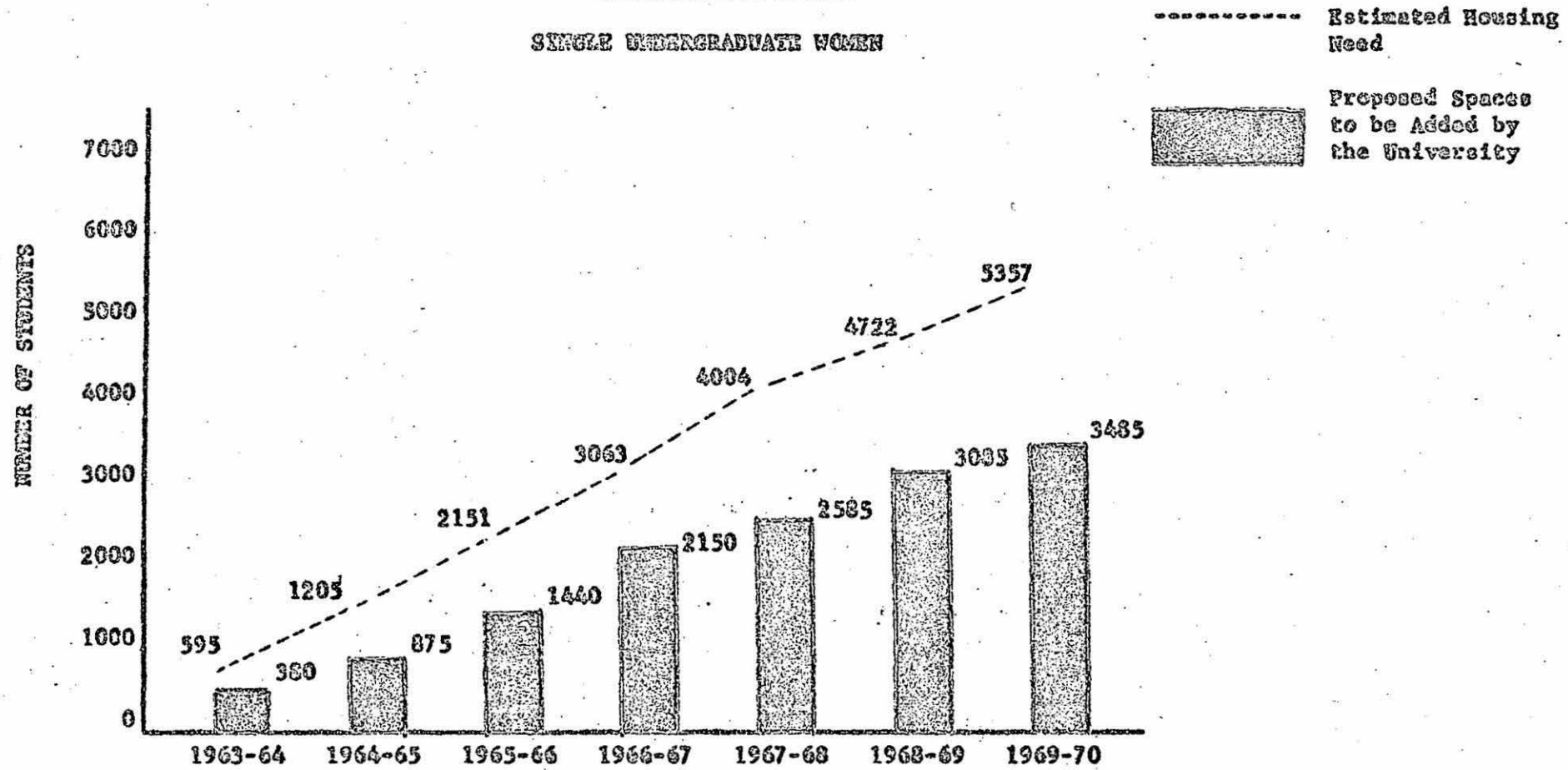
## ACCUMULATIVE TOTALS



# PROPOSED UNIVERSITY HOUSING CONSTRUCTION

## ACCUMULATIVE TOTALS

### SINGLE UNDERGRADUATE WOMEN

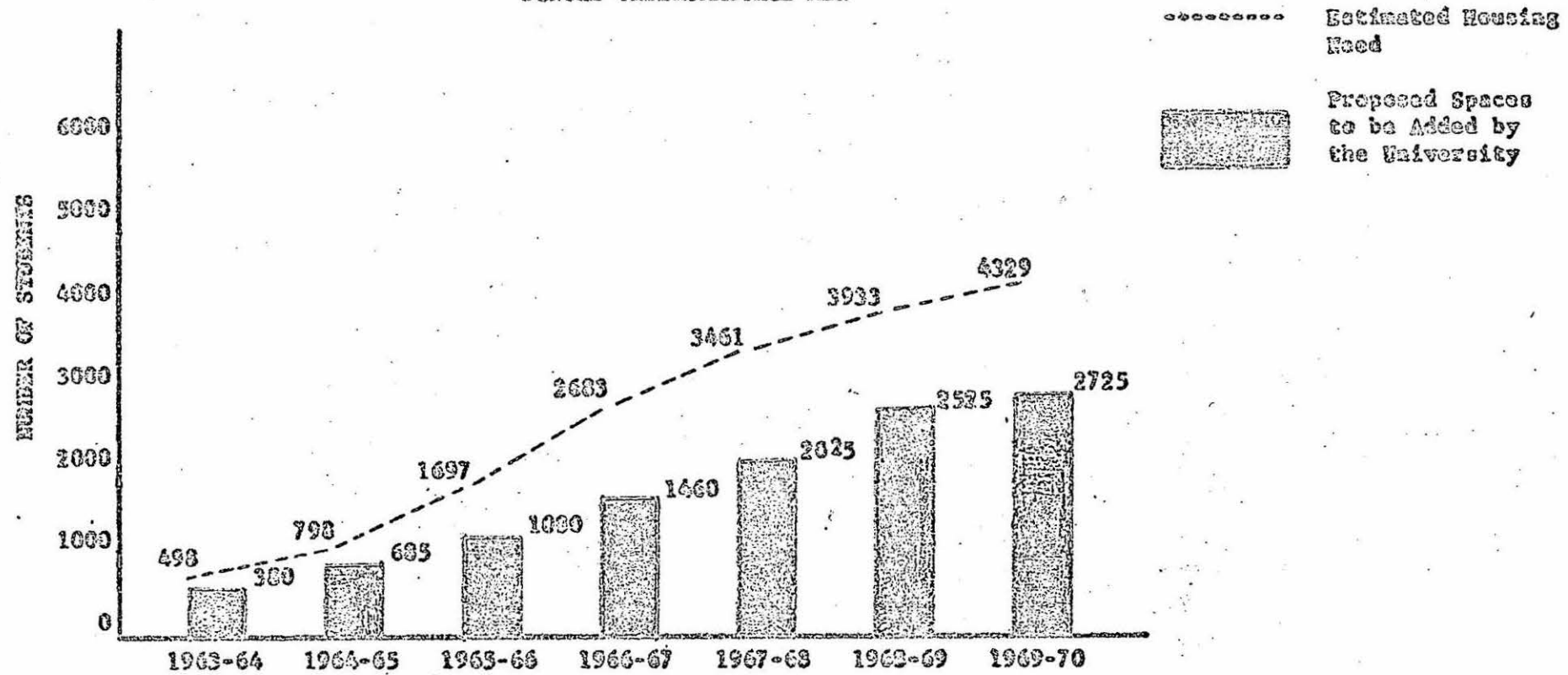


Prepared by N.J. Smith  
September 19, 1963

# PROPOSED UNIVERSITY HOUSING CONSTRUCTION

## ACCUMULATIVE TOTALS


### SINGLE UNDERGRADUATE MEN

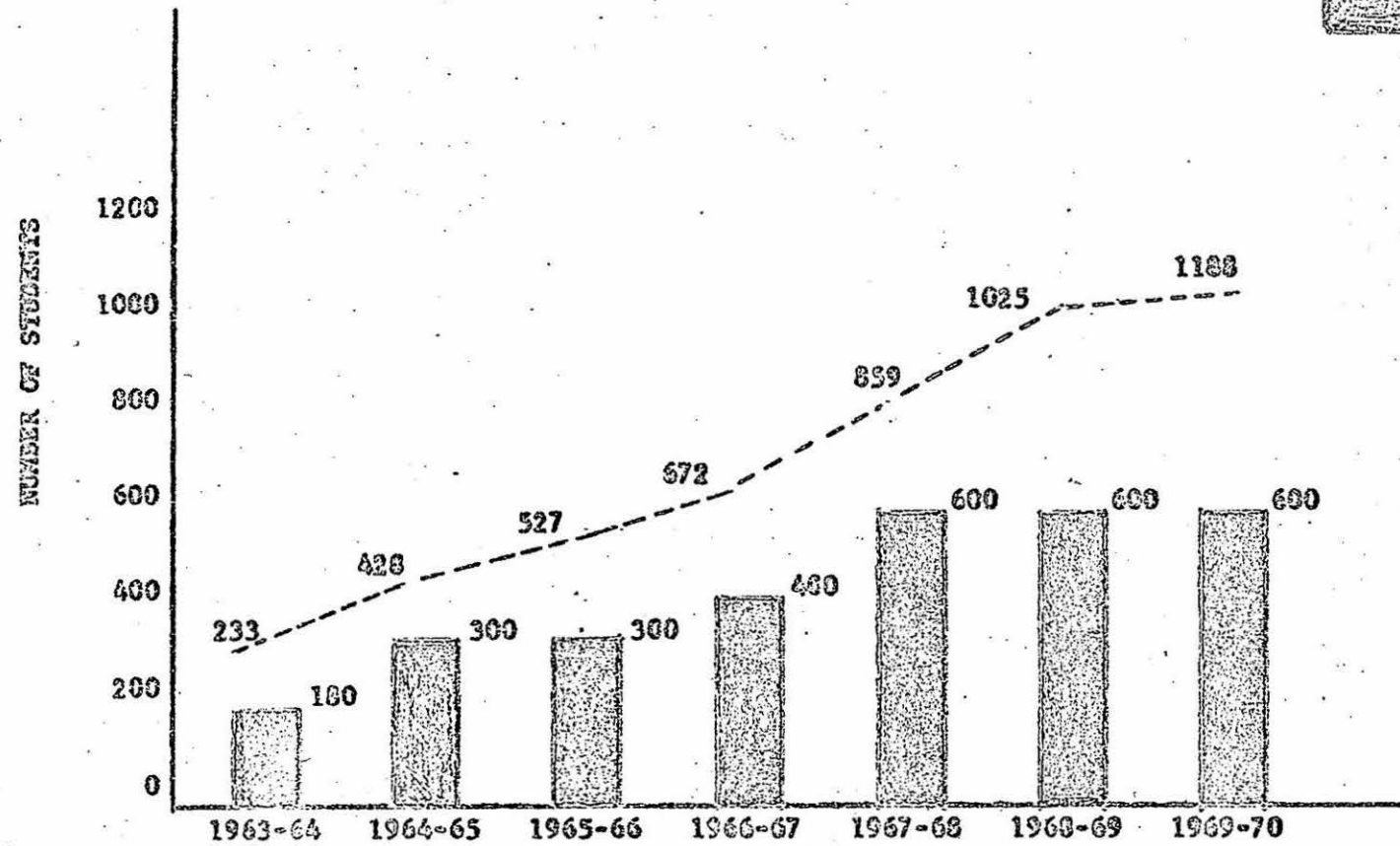


Prepared by H.J. Smith  
September 19, 1963

# PROPOSED UNIVERSITY HOUSING CONSTRUCTION

ACCUMULATIVE TOTALS  
SINGLE GRADUATE WOMEN

----- Estimated Housing  
Need  
 Proposed Spaces  
to be Added  
by the University

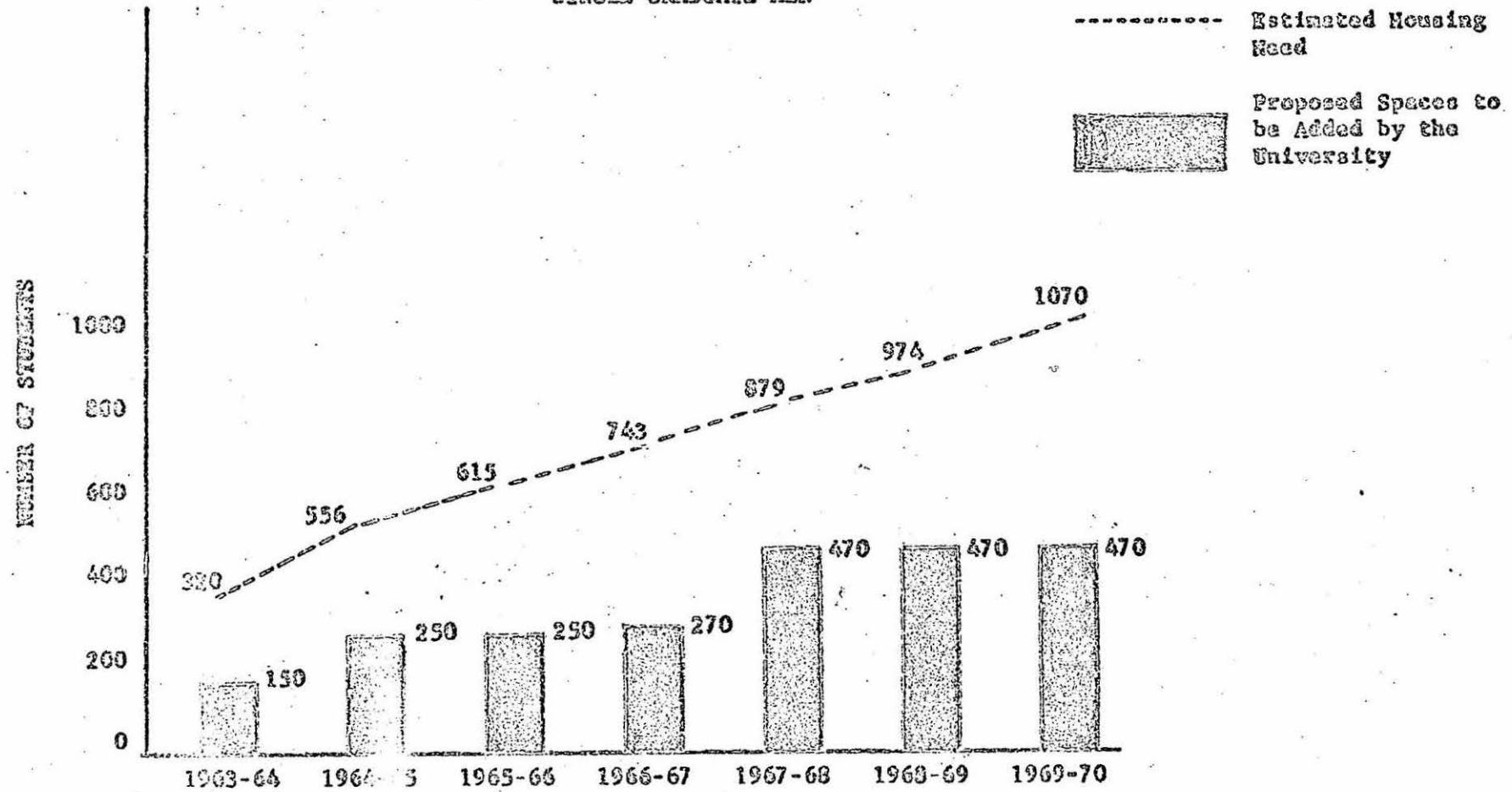


Prepared by H.J. Smith  
September 19, 1963

# PROPOSED UNIVERSITY HOUSING CONSTRUCTION

## ACCUMULATIVE TOTALS

### SINGLE GRADUATE MEN

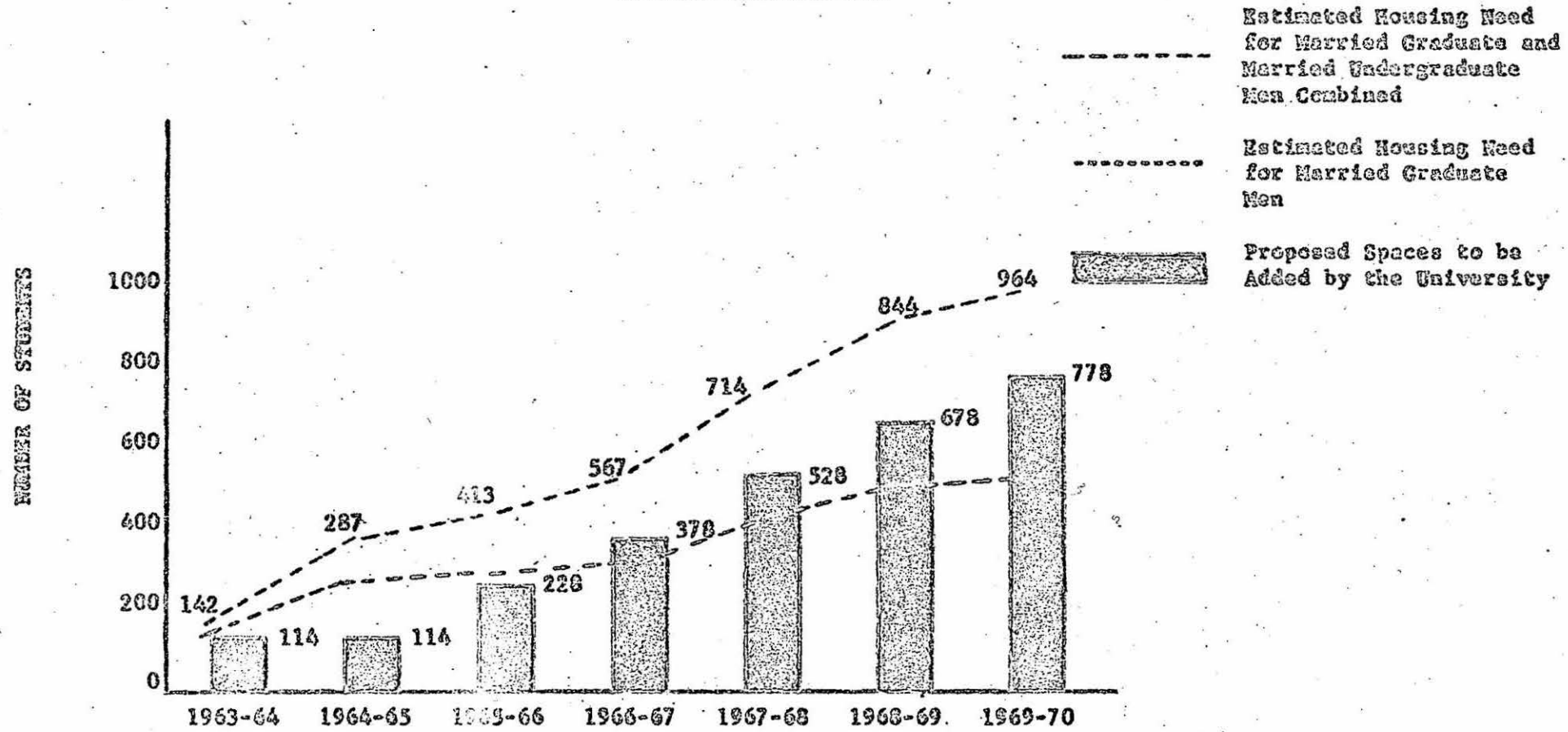


Prepared by N.J. Smith  
September 19, 1963

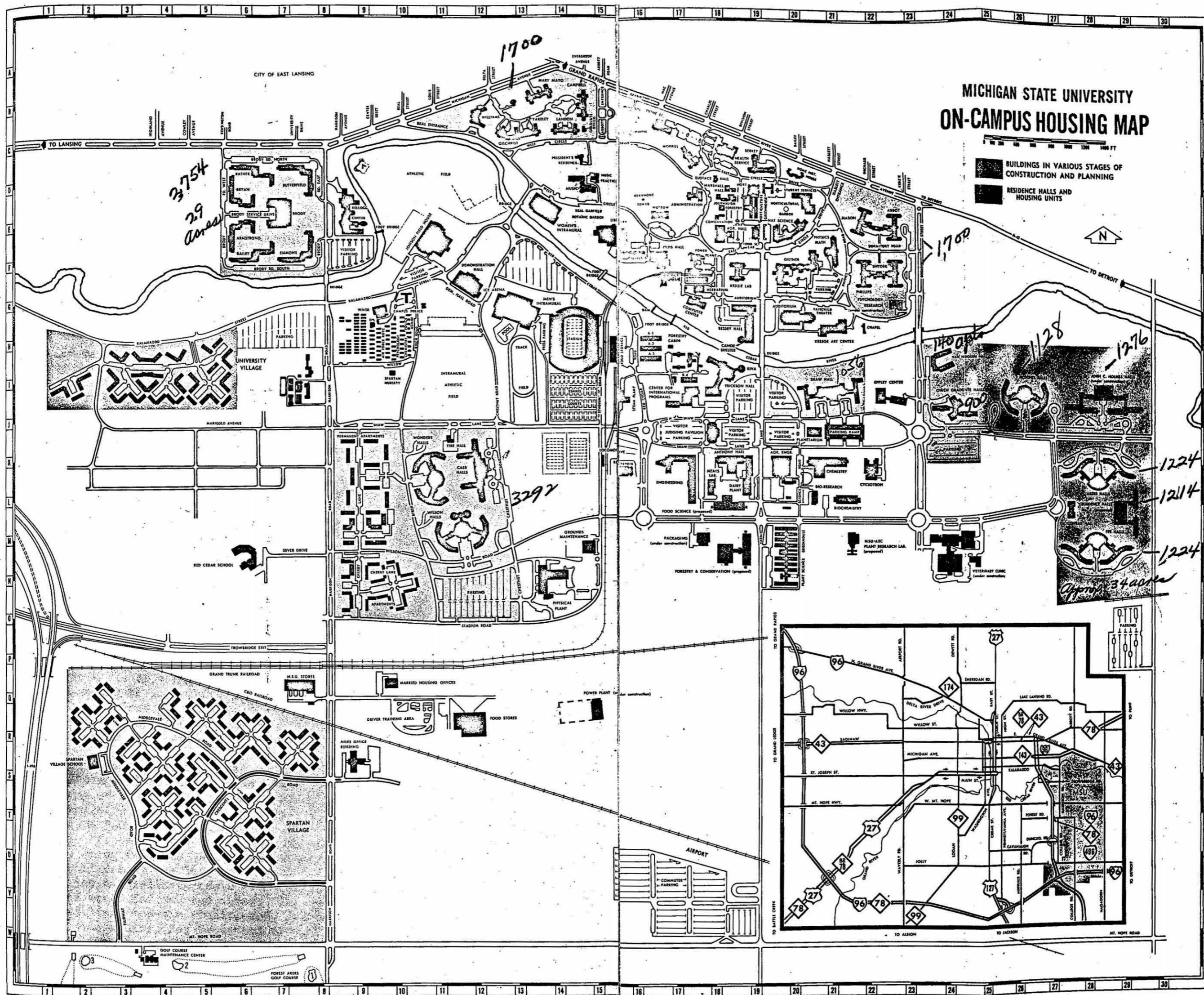
# PROPOSED UNIVERSITY HOUSING CONSTRUCTION

## ACCUMULATIVE TOTALS

### MARRIED GRADUATE MEN



Prepared by W.J. Smith  
September 19, 1963



Campus Planning Committee  
February 11, 1965  
Attachment No.  
Item

SUMMARY REPORT  
RESIDENCE HALL VISITATION COMMITTEE  
Mr. Guy J. Moore  
January 31, through February 8, 1965

This report should be considered in conjunction with the reports submitted by Mr. Taylor and Mr. Barrick. Various aspects of the Residence Halls system at the University of Wisconsin, Madison, Wisconsin; Michigan State University, Lansing, Michigan; Indiana University, Bloomington, Indiana were inspected.

UNIVERSITY OF WISCONSIN - Director of Housing, Mr. Newell Smith; Architect - Engineer, Mr. Lawrence Halle.

In conference with the above two people, the following information was set out, regarding the University of Wisconsin. The University has on campus approximately 26,600 students for the Fall semester. Of these 26,600, the University houses on campus approximately 3,162 men, and 3,096 women. The percentage to overall enrollment would be approximately 25%. The purpose of the visit to the University of Wisconsin campus was to look into the possibility of private capital for the housing of undergraduate men and women. The University of Wisconsin now permits men and women who are 21 years of age or older, and seniors, to live off campus. All Freshmen are required to live in on-campus housing as far as the supply will go. The University regulations state that the Residence Halls system will assign only five or six percent of the Residence Halls spaces to out of state students, until approximately May 1. After this period of time, if the halls are not filled, then assignment on a first-come, first-serve basis goes into effect. Recently, the State Legislature stopped the enrollment of out of state students at the University of Wisconsin for this year, and as a consequence, many of the off campus housing units were left with some vacancies. This in itself caused some friction between the off campus proprietors and the University. The University, though not responsible for the cutoff, was criticized by these people.

Another purpose of the visitation committee was the idea of construction of Residence Halls to a higher number of floors with the idea that conservation of land should be important, and that the proximity to the center of campus should be as close as possible. At the University of Wisconsin this concept has been lightened, because the University itself is on a lakeshore front, and completely surrounded by an older section of the city.

The University has constructed, and now has under construction, several high-rise buildings of ten floors. One hall which we looked at was Witte Hall, consisting of ten floors, commonly called houses. This building was a single building, containing food services, that was divided into two towers, one housing 560 single men, and the other housing 567 single women. It was stated by Mr. Smith that the common occupancy in an area by both men and women is being followed as far as possible. He stated that they felt that the overall damage was less in a group living area, and that the dress, manners and disciplinary cases were far less common than in the completely separated areas for men and women. The room and board rate for this particular building, non-air conditioned, double rooms, was \$250.00 per academic year of nine months, for room, and \$520.00 per academic year for food service. This rate is standard throughout the campus for all permanent halls. The buildings were constructed under loans from the HHFA, and are considered as high-rise buildings. The project in itself is self-supporting with the Housing Division Administration containing a central billing section, and its own IBM equipment for maintaining all records in conjunction with the University as it pertains to the Housing units. There was a schematic drawing which I believe was given to Mr. Nolan Barrick.

Furniture which is contained in the individual double room are hide-a-beds, which are not built-in, drapes for double windows, two lamps, two desks, which were partially built in some buildings, and loose in others, two bulletin boards, and two bookcase shelves. They also contained two closets.

A general view of the rooms in the Residence Halls on campus would indicate students of approximately 165 to 180 square feet per double room, with closets and desks built in, but with moveable beds, which were stated to be less expensive than the built-in variety. In comparison with the rooms which we now have in our newer Residence Halls, we are furnishing a great deal more for the money than the University of Wisconsin. Regarding the use of private capital, the Director of Residence Halls and Mr. Halle, stated that in event such houses were built, that definite regulations should be set out in advance for any off campus housing concerning the Management, the staff, and the facilities. In addition, it was stated that high density areas should not be approved if there is not set out a portion of the land for recreation and parking, in event that the buildings are no longer used for student lodging.

It was stated that in some cases where room only is furnished, with no food service required, that the going rate would be approximately \$320.00 for the nine months' period. These groups were generally identifiable in groups of 60 to 65 persons.

MICHIGAN STATE UNIVERSITY, Lansing, Michigan - Mr. Emery Foster, Director of Residence Halls and Student Services, and Mr. Lyle Thorburn, Manager of Residence Halls. Michigan State University has 15 men's residence halls and 22 women's residence halls, arranged in five major groups, or complexes, around the campus. Generally, new students are assigned to a hall that is conveniently located to the academic area or their major interest. In some cases, a residence hall has been committed to a particular college for its students' use. As a part of the Residence Halls System at Michigan State, classrooms and training laboratories have been established on the first floor and sometimes in the basement of a complex. A series of offices are issued to the faculty for administrative purposes, and it has been received quite well by the faculty and staff concerned. In our visit to these halls, there were a number of classes going on, and since the classroom area is generally cut off from the residence halls areas by a tunnel, there seemed to be little or no confusion in the area. However, there were a large number of rooms which were set aside for future expansion, and were presently used as recreation rooms, study rooms, etc. During our time there, the registration process was just beginning, and there were little or no student crowds within the hall.

I did not receive a breakdown of the population on campus, but the statement was made that the Michigan State University houses over 12,000 students. It was stated that their rooms were constructed on approximately 200 square feet per student basis, but in the visitation of the various residence halls, it is my opinion that they were talking about overall space, and such rooms were probably within the 165 to 190 square feet per double room concept. The residence halls at Michigan State also used the moveable bed, or bunk type bed arrangement. Though these pieces of furniture were loose, the students were permitted to use either double bunk beds, or to have single beds as they desired. There were normally two types of rooms which had been constructed on campus. The two double rooms with a connecting bath were the most predominant. Mr. Foster said that it was the feeling of the staff that this did not incur a great deal of expense over the gang-type facilities. This statement, however, was debated by the other schools which we visited.

The room and board charge for a nine months academic year was \$825.00 for a double room. This room rate is standard throughout all residence halls on campus. It was stated that the room and board charges were based on the overall need for housing, and that the food service was on a standard cycling menubasis, and that all buildings were fairly comparable.

The normal building which they have used for residence halls has been six to ten stories in height. They do have now under construction a 14-story building which will house both men and women. As the Housing Division at the University of Wisconsin used, they are making all of their new residence halls coeducational. That is, the use of common facilities in dining rooms, lounges, study rooms, and classrooms, but maintaining individual towers or sections within the residence hall for men and for women.

In addition to the above rate, they do have some halls available on contract for the full academic year only, which are without food services. A single room ranges from \$172.00 per quarter, per student, to \$516.00 a year, or a double room for \$390.00 per student, per academic year. Graduate women

are not required to observe closing hours. Ample parking space is convenient to the building, and is provided to those with cars. In other areas, which they are now completing, the parking area is approximately one block away from the living units. In some cases, they have built overpasses over a railroad track, in order to have the parking in an area away from the halls.

Schematic drawings and a tentative blueprint have been furnished to the Visitation Committee by Mr. Foster, and such plan is now in the possession of Mr. Barrick, our Supervising Architect.

In addition to the information which was contained in the blueprints, we also have brochures on the financial statements, the retirement of bond issue, and the breakdown of expenses which are incurred in the operation of food services, maintenance, utilities, laundry, supplies, material and equipment, and wages. This information is available in the Director of Residence Halls' Office.

Michigan State has made no concerted effort to conserve the land available. They estimate that the campus consists of approximately 4,600 acres of land, and the residence halls are located on the periphery of the University campus. A bus service, running approximately every five minutes, is scheduled from all of the outlying parking lots and the residence halls, into various points on the University campus. The copy of the Faculty, Staff and Visitors Parking Regulations, and a map of the campus, is also available in the Director's Office.

In addition to the normal residence halls operational system, the University operates a Central Food Facility, which is for canned goods, frozen goods, and butcher shop facilities. They do not incorporate a bakery shop in the Central Food Facilities, but prefer to have such done within the individual residence halls' units.

INDIANA UNIVERSITY, Bloomington, Indiana - Mrs. Alice Nelson, Executive Director, Residence Halls Development, and Mr. George Olsen, Director of Student Housing. Indiana University is situated in the small city of Bloomington, Indiana, of approximately 35,000 people. Indiana University has approximately the second largest number of students in the Midwest, housing approximately 10,000 students on campus. Of this 10,000, approximately 2,000 units are for married students, and the remaining are undergraduate men and women. The following breakdown is given by Mr. Olsen, as of February 3, 1965: Undergraduate men, 4,000; undergraduate women, 4,498; graduate men, 896; graduate women, 1,463. Total single housing, 9,961. Married student housing is approximately 1,468 persons, which includes 153 trailer units, which belong to the University.

The University is now following the policy of making all residence halls and complexes coeducational. The reasons given for this consideration were very similar to those at Michigan State and University of Wisconsin, in that they thought there was less damage within the residence halls, less problems socially, better dress, lower food costs, and much better student morale.

The University now has under construction two towers of 14 stories each, which will connect with an adjoining food service. This food service, then, will feed approximately 3,000 students. The halls in themselves are constructed in a quarter-circle shape, with lounge facilities, elevators and recreational areas in the center of all floors. Each floor, in turn has small individual lounges, a typing room, a student advisors room, and, in one section of the building, some guest visitor's apartments. On the ground floor, there is a series of spaces set aside for a library, which is provided for through the vending machine funds, which are income produced by the residence halls. This library is self-sustaining, and is available for check-out by any student within the residence hall complex. In addition, there are several study rooms, which have been set aside for study and research.

On the first floor level, and the basement level, are maintained some very large recreational areas, a complete snack bar in every residence hall, generally furnishing services to approximately 1,200 students. These snack bars are run as an individual concession, under the Director of Residence Halls.

On each of the living units, or floors, there was a small trunk storage room for hand luggage. Mr. Halle stated that this was used because of the lack of closet space in the rooms. The door was locked, however, there was no identification on the various bags which were stored in this room on the floor. Each floor had an ironing room with detached ironing boards. Irons were supplied by the students. They also had a room set aside as a typing room in each of the living units. In addition, there were the standard numbers of custodial closets, and, in some instances, a linen storage closet, which was used periodically in the exchange of linens as they were made each week. The method of linen exchange was one sheet and pillow case per week, which would incorporate, then, the use of a sheet for two weeks.

A trash chute was supplied on each floor for the use of the students. Mr. Barrick has the details on the facilities.

Food Facility Use. Each unit of approximately 1,000 to 1,200 students, had a food service within the building of the residence hall. However, they do have several units of four-story buildings which have a common food service, and in one commons building, they are feeding approximately 2,000 students; feeding approximately one-half of their students at one sitting.

The off campus housing projects ranged in cost from \$1,100 to \$1,500 per year. Mr. Taylor is furnishing with his report a brochure on Lowell Hall, housing approximately 250 to 300 women students. These are primarily drawn from out of state, and their turn over was approximately 50 percent each year. Facilities within the building provided were two informal lounges, a dining room which they used for seated table service three days per week, and maid service within the rooms as far as emptying of wastebaskets, cleaning of bathrooms, and general sweeping. The students were required to make their own beds throughout the semester.

The future housing at the University of Wisconsin has been encouraged by the Board of Regents, which has taken the position that they will maintain the present percentage of housing, but no more than fifty percent of the student body. Mr. Smith stated that the possibility of acquiring fifty percent of the student body in housing on campus was, at the time, impractical. They are now acquiring some off campus land by having to condemn such, but he also stated that with the crowded facilities which the private investors are using adjoining the campus, it is felt that the University would have to maintain some recreational areas, in order to cut down congestion, and some discontent, from the off campus students. The University publishes yearly the number of spaces in on campus housing which it has, a breakdown of the estimated number of students who will be enrolled for the following five years and maintains a close liaison with the Housing Bureau, who is responsible for the inspection and approval of off campus housing. The University does work closely with the off campus housing people, in suggesting or recommending employees as managers and staff for the building. In this regard, they have had some problems in that staff people who have been hired for one job have been asked to do many other things by the proprietors of the building. It was Mr. Smith's suggestion that when approving any off campus housing units that the College specifically state the rules and regulations by which the off campus houses must abide, and at the same time, ask that the investors furnish the College with a list of the duties which they ask that their employees do as managers of these various buildings.

The University has a parietal rule stating that students can be required to live on campus, but because of the large number of students and close proximity of the campus to the city, this rule has never been necessary to use.

Women's off campus housing must be approved by the Housing Bureau. This Bureau obtains listings of approved houses, and does have an inspection team. A typical staffing would be a Director of the Housing Bureau for Off Campus, two supervising inspectors, three part time inspectors, and a normal clerical staff.

In small group sorority houses, sororities have approximately 495 out of 8,200 women. The fraternities house approximately 1,200 out of 12,000 single men. Many of the units, though having food service facilities, are using a student union catering service. This seems to be working rather well for the small groups. An analysis as of the first of January, showed that living in the Residence Halls were 3,162 single men and 3,096 single women. There were 236 single men shown as commuters, and 111 single women shown as commuters.

Mr. Pennington

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

AGENDA FOR THE JOINT MEETING  
OF THE CAMPUS AND BUILDING COMMITTEE AND CAMPUS PLANNING COMMITTEE  
TO BE HELD AT 4:00 P.M. IN THE OFFICE OF THE PRESIDENT  
FEBRUARY 12, 1965

2968. Dormitory Expansion

A. Site

*see note*

Consider the recommendation of the CPC that the site be south of the Physical Plant Building and Central Food Facilities or west of Flint Avenue and north of 19th Street; the final selection to be made after the project idea is further developed.

*Bldg Comm  
OK*

B. Type

Consider the recommendation of the CPC for a high-rise complex in order to conserve land. The high-rise could be 8 to 14 stories. Plans should be as flexible as possible to provide additions. Parking would be a very important item as it would determine the extent of the land used.

*P.C.  
OK*

C. Size

The goal has been set at 3,000 spaces. However, the number could be limited by the method of financing as it would affect the College's ability to finance the project. Room and board charges would be a factor also. Probably 30 acres of land would be required.

*P.C.  
OK*

D. Financing

The better route probably would be to work through the HHFA in order to provide both HHFA and private financing possibilities unless the Board would wish to follow some other program.

*P.C.  
OK*

### E. Architects

It was agreed that it would be premature to recommend specific architects until a bit more is known of the project, its location and the time schedule.

### F. Legislative Picture

It might be wise to go slow or at least be cautious until more is known of the outcome of the current Legislative Session

## 2969. Housing (Other) and Food Service

### A. Consolidated Food Service Unit for West, Sneed, Bledsoe and Gordon Halls - November 1, 1964, and Central Food Facilities - September 1, 1964 (CPC No. 74-62)

#### 1. Central Food Facilities

Consider the acceptance of November 6, 1964, as the substantial completion date, which would leave 66 days beyond the scheduled completion date. With 62 days approved for delays beyond the control of the contractor, there would be a balance of 4 days to be accounted for.

OK  
N

#### 2. Consolidated Food Facilities

Consider the recommendation of November 6, 1964, as the substantial completion date. The contract was scheduled to be completed on November 1, 1964, which would leave 5 days beyond the scheduled completion date. With 15 days approved for delays beyond the contractor's control, there would be no days to be accounted for.

OK  
N

## 2970. Killgore Beef Cattle Center

Consider the recommendation for final acceptance date of November 25, 1964, for the building constructed by Stout Steel Builders, the Feed Mill equipment and installation of the conveyor by Brown-McKee and for the conveyor provided by the Stewart Engineering and Equipment Company.

OK  
N

2971. Master Plan

Consider the recommendation of the CPC to secure the best professional available assistance to develop a master plan which would encompass all aspects of the College and the appointment of a Committee of the Board to work with the CPC and any one else desired in the selection if one must be made between meetings.

OK

*make recommendation at next meeting  
for consent -*

2972. Museum

View the cut-away model in Room 116 of the Administration Building, east wing.

*OK as it is going -  
right direction -*

2973. Parking

View the studies prepared by Mr. Urbanovsky and Mr. Barrick showing what could be required to somewhat double the present parking capacity on campus.

*see notes*

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

MINUTES OF THE CAMPUS PLANNING COMMITTEE

Meeting No. 239      February 12, 1965

A meeting of the Campus and Building Committee of the Board of Directors and the Campus Planning Committee was held at 4 p.m. on February 12, 1965, in the Office of the President.

Members of the Building Committee present were Mr. Wilmer Smith, Chairman, Mr. Herbert Allen and Mr. Harold Hinn. Other members of the Board of Directors in attendance were Chairman R. Wright Armstrong, Mr. Alvin R. Allison, Mr. Manuel DeBusk and Mr. J. Edd McLaughlin.

Members of the Campus Planning Committee present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Others present from the College were President R. C. Goodwin, Dr. W. M. Pearce, Mr. Robert L. Mason, Mr. Guy J. Moore, Mr. O. R. Downing, Mr. John G. Taylor and Mr. R. B. Price.

In order that the results of the meeting of the Board of Directors may be included in the Campus Planning Committee Minutes for record purposes, the action taken by the Board at the meeting on February 13, 1965, will follow that of the Campus and Building Committee for each item.

2968. Dormitory Expansion

A. Site

Approved the recommendation of the CPC that the site be located south of the Physical Plant Building and Central Food Facilities or west of Flint Avenue and north of 19th Street, with the final selection to be made after the project is further developed.

B. Type

Approved the recommendation of the CPC for a high-rise complex in order to conserve land, with the idea that the plans be as flexible as possible to provide future additions. Parking is to be a very important part of the study to determine the extent of land used.

C. Size

Approved the idea of a goal for 3,000 spaces, with the specific amount to be determined by further study and the method of financing.

Probably 30 acres of land could be required.

D. Financing

Approved seeking financing through the HHFA.

E. Architects

Agreed that if a selection of architects should be recommended prior to the next meeting, a poll of the Board could be taken, with official approval to be made at the meeting of the Board on April 10, 1965. As the scheduled completion date is September 1, 1967, even a few weeks or more start would be very helpful, as the construction must be under way in December, 1965.

(The Board of Directors approved.)

2969. Housing (Other) and Food Service

Consolidated Food Service Unit for West, Sneed, Bledsoe and Gordon Halls - November 1, 1964, and Central Food Facilities, September 1, 1964 (CPC No. 74-62) (J. R. Francis, General Contractor, Inc., \$1,480,157.10)

1. Central Food Facilities

Approved the acceptance of November 6, 1964, as the substantial completion date, which is 66 days beyond the scheduled completion date. Approved the recommendation of 62 days for delays beyond the control of the contractor, leaving a balance of 4 days to be accounted for at \$500 per day.

2. Consolidated Food Service Unit

Approved the recommendation of November 6, 1964, as the substantial completion date, which would leave 5 days beyond the scheduled completion date. Approved the recommendation for 15 days beyond the contractor's control, which will leave no days to be accounted for.

(The Board of Directors approved.)

2970. Killgore Beef Cattle Center (CPC No. 75-62) (Walter E. Wirtz, \$378,839)Final Acceptance Date

Approved the recommendation for a final acceptance date of November 25, 1964, for the building constructed by Stout Steel Builders, the feed mill equipment and installation of the conveyor by Brown-McKee, Inc., and for the conveyor provided by Stewart Engineering and Equipment Company.

(The Board of Directors approved.)

2971. Master Plan

Approved the recommendation of the CPC to secure the best professional assistance available to develop a master plan which would encompass all aspects of the College, with a recommendation to be made at the next meeting of the Board of Directors.

(The Board of Directors approved.)

2972. Museum

The members of the Board of Directors informally viewed the cut-away model which is almost complete and indicated that the planning is proceeding in the proper direction. A meeting in the near future is to be held by the Museum Association Committee, the Campus Planning Committee and the architects.

2973. Parking

Viewed studies of the campus showing the present parking spaces and the spaces required to double the present capacity, and discussed a report on automotive registration which is attached to and made a part of the Minutes. (Attachment No. 571, page 1710)

M. L. Pennington  
Chairman

The meeting adjourned at 6:10 p.m.

Campus Planning Committee  
 February 12, 1965  
 Attachment No. 571  
 Item 2973

# AUTOMOTIVE REGISTRATION

September, 1964

Number of Park Spaces	6,303	+	2,000	8,303
	Campus		Auditorium Coliseum Area	
Number of Automobiles Registered				<u>7,847</u>
			Extra Spaces	<u>456</u>
Number of Automobiles Restricted from Campus (Feb. 12, 1965)				647

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February 12, 1965

Automobile count on streets adjacent to campus, 19th Street and College Avenue		1,027
Number of above automobiles restricted from Tech campus	540	
Number of above automobiles not restricted from Tech campus and not registered	<u>487</u>	
	1,027	

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

MINUTES OF THE CAMPUS PLANNING COMMITTEE

Meeting No. 240      February 25, 1965

A meeting of the Campus Planning Committee was held at 1:30 p.m. on February 25, 1965, in Room 120 of the Administration Building. Members present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Others present were Mr. Robert L. Mason, Mr. O. R. Downing, Mr. John G. Taylor and Mr. Guy J. Moore.

2974. Chemical Research Building (CPC No. 87-64)

Mr. Barrick reported that he and the Chemistry people had a very satisfactory meeting and that the preliminary application to the National Science Foundation should be mailed the latter part of next week. He thinks the architects can have the preliminary plans ready for the next meeting of the Board of Directors.

2975. Dormitory Expansion

A. Architects

Mr. Barrick and Mr. Urbanovsky have spent considerable time discussing possible architects for the dormitory expansion. It was felt that the architects the College has been using have accumulated a great deal of information and knowledge about housing and the CPC would hate to lose this. Although there have been some problems in the past, it was agreed that these have been corrected. Some rearrangements have been made in the association of architects we have been using.

The possibility of bringing in an outside architect or firm to work with the new association was discussed. Several architects and other associations of architects have approached Mr. Barrick and the Chairman. Some of the architects have contacted various Board members.

The question was raised as to whether or not the CPC should recommend a long-range construction contract for housing. A decision on this was delayed until later.

The consensus was that the Committee would lean toward having a local firm or association with an outside architect or firm in a joint venture.

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(The following discussion and action on this item were taken after the Chairman had to leave the meeting because of some pressing legislative matters. He requested the group to continue the meeting without him.)  
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It was thought best to know what our space needs are going to be for the proposed project before the architects are recommended. The size of the project could have some bearing on the selection of architects.

It was suggested that a meeting be scheduled with the entire Building Committee of the Board as soon as possible and to watch the picture in Austin, as it could change several things including housing needs.

2975. Dormitory Expansion (continued)B. Financial Report

Mr. Taylor reported that the HHFA likes the complex idea and stated that they would do everything they could to help us finance the number of spaces we can justify as necessary by 1967. The application we submit should include only the plans and financing for the actual number of spaces we hope to build by 1967. In the application, however, we should point out the general idea of the complex and what we hope to construct eventually.

It was pointed out that the law providing funds for housing loans expires June 30, 1965, and no one knows yet whether or not Congress will extend it. However, it is believed that this will be done. The limit that HHFA is supposed to loan to any one school in one year is \$4,000,000. HHFA reviewed our files and determined that on an annual basis, we have not borrowed \$4,000,000 so we probably could persuade Washington to loan us more. HHFA pointed out that they know we would sell some of the bonds to private buyers, and they can afford to approve a larger loan agreement, realizing that they will not have to buy all of the bonds.

We may go two ways in financing this complex. We can extend our present housing system, which requires a 1.35 coverage, or we can close the present system and begin a new one with a 1.25 coverage. The HHFA pointed out that we would find it easier to sell our bonds on the open market with the 1.35 coverage. When we get a little further into the project, we will need to determine which method we want to follow.

The problem of financing the movable equipment, the portion of the kitchen and utility-air conditioning system that may be required to be constructed, to meet the entire 3,000 or maximum size of the complex was discussed. The HHFA will, as usual, pay only that portion they consider necessary for the spaces we will build by 1967. The College will have to finance the balance. This can be done by determining the amount of funds needed for the additional work and equipment and issuing a separate series of bonds which we will have to sell on the open market. These bonds can be considered as part of the project and come in the 1.35 or 1.25 coverage.

The number of spaces needed was discussed. Mr. Moore and Mr. Barrick have made some preliminary studies, using various percentages of students being housed. It was pointed out that we were housing more than 70 percent last fall, but we now have over 900 vacancies. Considering that 30 percent of our students are married or are not eligible to live in our residence halls for other reasons, Mr. Moore and Mr. Barrick have estimated that our present residence halls could house 60 percent of the 70 percent considered eligible.

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(The following action and discussion on this item occurred after the Chairman had to leave the meeting because of some pressing legislative matters. He requested the group to continue the meeting without him.)  
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It was agreed that further study was necessary by Mr. Barrick and Mr. Moore on the number of spaces we should provide for the eligible students and have this information available as soon as possible.

2976. Master Plan

After much discussion, Mr. Barrick mentioned that the only person he had been able to think of to handle this project was Dean John E. Burchard, retired Dean of Humanities at MIT. Mr. Barrick stated, however, that the Dean is not in this business and might not consider our offer if we should approach him. Mr. Urbanovsky had no recommendations, and both he and Mr. Barrick think a complete list of everything to be included in the master plan should be compiled.

M. L. Pennington  
Chairman

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The meeting adjourned at 3:45 p.m.

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

MINUTES OF THE CAMPUS PLANNING COMMITTEE  
Meeting No. 241                      March 11, 1965

A meeting of the Campus Planning Committee was held at 8:30 a.m. on March 11, 1965, in Room 120 of the Administration Building. Members present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Also present were Mr. Robert L. Mason, Mr. O. R. Downing and Mr. John G. Taylor.

2977. Approval of Minutes

On motion by Mr. Barrick, seconded by Mr. Urbanovsky, the Minutes of Meetings Nos. 237, 238 and 239 were approved.

2978. President's Approval of Minutes

President Goodwin approved the Minutes of Meetings Nos. 237 and 238 on February 15, 1965, and Meeting No. 239 on February 16, 1965.

2979. Agricultural Facilities (CPC No. 93-64)

Horse Facilities

Inspecting Team

The Inspecting Team has been out and is in the process of writing up the results of the trip.

2980. Architects' Rates

The recommendation for the architects' rates for the next contracts will be made at the time there is a recommendation for architects.

2981. Bookstore Addition (CPC No. 69-62) (H. A. Padgett, Jr., \$238,499 August 1, 1964)

Final Acceptance

A great deal of work has been done by the Carrier Corporation on the cooling equipment and it was agreed to recommend final acceptance of the project as of March 11, 1965 as official occupancy has been set as August 1, 1964 when the College began using the facilities, there is no question of liquidated damages.

2982. Campus Lights

Men's Residence Council Request

The work is in progress although the luminaries have yet to be delivered. It is anticipated that the work will be completed within the next few weeks.

2983. Chemical Research Building (CPC No. 87-64)

Application

Mr. Barrick reported that he has just received the last information for the preparation of the preliminary application which is to be prepared and submitted with the least possible delay.

2984. Classroom-Office Building (New) (Foreign Languages and Mathematics) (CPC No. 79-63)

A letter was received on February 18, 1965, from the Texas Commission on Higher Education stating that the application contained no errors, contrary to earlier notification.

At the March 1, 1965, meeting of the TCHE, the request for \$450,000 matching funds was approved. The application must be approved by the U. S. Commissioner of Education before funds will be available.

2985. Dormitory and Dining Facilities (Project CH-Tex-150(D))

Units B and C (CPC Nos. 72-62 and 73-62) (H. A. Lott, Inc.,  
\$2,788,420.40 - August 1, 1964, and \$3,513,215.13 - August 1, 1964)

1. ElevatorsFinal Acceptance Date

It was agreed to recommend February 1, 1965, as the final acceptance date of the completed contract with Esco Elevators, Inc., including the 90-day maintenance period.

The company has done a very great deal of work on the elevators and they are functioning satisfactorily.

2. Fountains

After the last meeting, the contractor was to remedy the defects and report the completion. However, no information has been received to this date.

3. Sunken Terrace (South of Snack Bar, Unit C)

Mr. Urbanovsky said that no additional progress has been made.

2986. Dormitory ExpansionA. Spaces Needed by 1967

(Mr. Moore entered the meeting.)

After an hour and fifty minutes of discussion on this one topic, it was apparent that some assistance on policy decisions must be made before an effective recommendation can be made to the Board of Directors.

It was agreed to request the Chairman of the Building Committee to arrange a meeting between the Building Committee and the Campus Planning Committee at the earliest possible time.

B. Architects

Additional study has been made on the selection of architects but until more is known of the project, it would seem to be unwise to make a recommendation for specific architects.

C. Consultant

Mr. Moore and Mrs. Bates have recommended that Mr. Arthur W. Dana be employed as food consultant for the proposed new project and the idea is in conformity with the thinking of the CPC. However, any action would be premature at the moment.

D. Utilities

It was agreed that utilities would be of paramount importance in any expansion, either dormitory or otherwise. It would be possible to increase the present capacity of the powerhouse in order to accommodate the new dormitory facility. However, from all indications, a major study should be made on the proper method to heat and cool any new facilities.

The study should also include means for future air conditioning in order to have a complete study of needed utilities.

2987. Housing (Other) and Food ServiceHousing OfficeConstruction Progress

Mr. Downing reported that the project is now closed in and approximately 20 percent complete.

(Mr. Moore left the meeting.)

2988. KTEXT-TV

No word has been heard from the Television Committee and therefore no recommendation can be made by the Campus Planning Committee.

2989. Library (CPC No. 12-58)Completion of South BasementArchitect's Fee

The architects have agreed to a fee of  $1\frac{1}{4}$  percent instead of  $1\frac{1}{2}$  percent as first mentioned by the CPC.

2990. Master Plan

After a good bit of discussion, it was agreed that it would be necessary to have a well defined scope of the elements to be considered in the study. Also, it was agreed that each member present will, in the very near future, make a rough list of all the items which might be considered and present it to Mr. Taylor, who will coordinate the information, circulate it to members and arrange a special meeting to consider the items.

Also, each member present is to send a list of possible consultants to Mr. Taylor, again, for coordination and consideration at a later date, preferably when the Building Committee can meet with the Campus Planning Committee.

2991. Museum

A meeting was held with the Museum group and architects on February 18, 1965. The group viewed and approved the model of the proposed building and received a preliminary cost estimate from the architects, which set the total cost at approximately \$12 per square foot.

It was agreed that the plans should be shown to the full Museum Board.

2992. Other ItemsA. Southwestern Public Service Company Easement

The proposed bill, as drawn, is entirely satisfactory and it has been recommended to representatives of the Southwestern Public Service Company that they present it to the Legislature for approval.

The Legislative bill will not affect the details of the easement and the study is still in progress.

B. Safety PrecautionsRadioactive Materials Survey

Mr. Taylor has completed the details of the study and has asked Dean Bradford for his review and comments.

2992. Other Items (continued)C. Sororities

Some of the sororities have requested consideration for space to store ritual materials and hold meetings in the proposed new housing. However, the Campus Planning Committee is of the opinion that that would be an improper place to provide the facilities and recommends that consideration be made in the next addition to the Student Union Building.

It is suggested that the Dean of Student Life pass on the feasibility as it involves the use of the land to the west of the College and other phases of fraternal life.

D. City of Lubbock Easements

The City of Lubbock has asked for the following easements:

An easement for electrical line, poles and downguys at Quaker and Erskine where Loop 289 crosses Erskine.

An easement for a water main which runs down the old Quaker Avenue right-of-way after that part of Quaker has been closed by the City Council and the land is taken over by the State.

An easement for a large water main to cross the campus west of Flint Avenue to serve the College's needs in the area west of Flint Avenue.

The CPC recommended tentative approval. The City officials are now preparing more details which will be considered before a recommendation is made to the Board of Directors.

2993. ParkingA. Ports of Entry

A meeting was called of the Traffic and Security Commission recently but due to the fact that several of the members were out of pocket, a quorum was not present.

B. Doak Hall Request

Mr. Urbanovsky presented several sketches for consideration and it was agreed that additional study will be made for parking to the south of Doak Hall.

2994. Wage Scale

Mr. Barrick will review the existing file and attempt to work out a recommendation for the next meeting.

2995. Will Rogers StatueLighting

Mr. Downing reported that the conduit is practically in but the project is being delayed pending delivery of additional materials.

M. L. Pennington  
Chairman

The meeting adjourned at 11:05 a.m.

TEXAS TECHNOLOGICAL COLLEGE  
Lubbock, Texas

Office of the Vice President  
for Business Affairs

March 19, 1965

For Information Only

A meeting of the Campus and Building Committee of the Board of Directors and the Campus Planning Committee was held at 1:30 p.m. on March 18, 1965, in the Studer Union.

Members of the Building Committee present were Mr. Wilmer Smith, Chairman, Mr. Herbert Allen and Mr. Harold Hinn.

Members of the Campus Planning Committee present were Mr. E. J. Urbanovsky, Mr. Nolan E. Barrick and Chairman M. L. Pennington. Also present were Dr. R. C. Goodwin, Mr. Robert L. Mason, Mr. O. R. Downing, Mr. Guy J. Moore and Mr. John G. Taylor.

Classroom-Office Building (New) (Foreign Languages and Mathematics)  
(CPC No. 79-63)

The Building Committee of the Board asked where we stood on the project. The Chairman of the CPC reported that the \$450,000 matching funds had been approved at the state level and that he felt sure the funds would be approved at the federal level. The Building Committee asked the CPC to have the architects proceed immediately with drawing up the preliminary plans and possibly start work on the final drawings in order to save time and get the building ready as soon as possible. The College will be experiencing a classroom and office space shortage by the time it is completed. Mr. Barrick was requested to call the architects promptly and have them proceed as rapidly as possible.

Dormitory Expansion

After a considerable amount of discussion and study of the attached graphs, it was agreed to recommend to the Board that the College not build any more housing at the present time and that the college administration should proceed to contact those parties interested in building private housing off campus and urge them to proceed with their plans. It was further agreed that, at least for the time being, the College will strive to house all eligible women on campus and to encourage private housing to build for men students.

Master Plan

A good bit of discussion followed the presentation of a paper prepared by Mr. Urbanovsky in which he described what he thinks should be included or what the master plan should encompass and some of the mechanics as he sees it. The group agreed in part with Mr. Urbanovsky's thoughts. However, Mr. Allen pointed out that Dr. Goodwin needs to be the head planner and decide on who and what kind of outside consultant help the College needs. A review was made of a number of firms and individuals who might be considered as outside consultants for planning. It was agreed that if the college administration wanted to bring in someone, such as Dean John D. Burchard, Retired Dean of Humanities at MIT, for a day or two to help plan the overall scope and type of study desired, it should do so. This would just be the preliminary step and, since it is not very likely that Dean Burchard could be brought to the campus and complete the work necessary before the next Board meeting, the final recommendation to the Board will be delayed until the May 29, 1965, meeting.

Mr. Barrick was asked to contact Dean Burchard at the first opportunity and, if Dean Burchard is receptive to our offer, arrange a time when he can come to the campus for a day or two.

Mr. Allen made it very clear that any type of master plan developed must be kept up to date thereafter, as planning is a day-to-day affair now, and is becoming more complicated all the time.

The meeting adjourned at 4 p.m.

M. L. Pennington  
Chairman, CPC

SUMMARY OF PROPOSED METHODS TO PROVIDE HOUSING  
March 18, 1965

September 21, 1964 - Received a letter from the L. F. Rothschild and Company, New York, N. Y., proposing to help us with financing of residence halls. On January 5, 1965, Mr. M. L. Pennington wrote this firm and requested more details regarding financing. On January 13, 1965, the company asked for more information which Mr. Pennington furnished. Nothing further has been heard from this firm.

September 29, 1964 - A letter was received from the Campus Housing Development Corporation, Mr. Howard A. Sunshine, New York, N. Y., advising that they were interested in helping us with financing and building new residence halls. Since that time, several phone calls and letters have been exchanged between this corporation and Mr. Pennington. The last letter from the corporation, January 21, 1965, indicates that their plan is to lease college land for \$1 per year, build the facilities, then lease the facilities back to the College, with the title being transferred to the College at the end of the lease period. A meeting between Mr. Herbert Allen and Mr. Sunshine was arranged for March 14, 1965. Mr. Sunshine reported to Mr. Pennington on March 16, 1965, that he gave Mr. Allen a current fact sheet and several references should he wish to investigate the parent company of Campus Housing Development, George W. Warnecke and Company, Inc., and the president, Mr. Warnecke, who is majority stockholder.

October 5, 1964 - Mr. Robert V. Tishman, President, Tishman Realty and Construction Company, Inc., New York, N. Y. A letter was received indicating interest in private housing off campus. On January 4, 1965, Mr. M. L. Pennington wrote Mr. Tishman that we were going to provide more housing and inquired as to their interest in providing off-campus housing. On January 20, 1965, Tishman Realty and Construction Company sent a letter and several items covering information about Bromley Hall, which they are presently building at the edge of the campus of Ohio University, and indicated that this is the type of structure they are planning and probably will build near other university campuses. Bromley Hall is patterned after Lowell Hall, which has been in operation for several years at the University of Wisconsin and which Mr. Barrick, Mr. Moore and Mr. Taylor visited last week while on their tour. Tishman Realty and Company constructs, owns and operates all of its residence halls. The administrators of these halls, in most cases, try to cooperate with the university or college.

Mr. Harvey Leonard of Tishman Realty and Construction Company, Inc., visited with Mr. Guy Moore on February 18 and again on February 21, 1965 (as Mr. Pennington and Mr. Taylor were out of town), regarding a proposal by his company for approximately 600 student residence hall spaces in an area close to the campus from Wall and Gates Halls on 19th Street.

Mr. Leonard firmly stated that his firm would comply 100 percent with the rules and regulations of supervision and conduct which would be set up by Texas Technological College. He was aware of the parietal rule and, again, firmly stated that he was not concerned about that fact if his firm was permitted to build a residence hall off campus with the College's permission.

While in Lubbock, Mr. Leonard talked with the Chamber of Commerce officials and with various people here on campus. Mr. Moore took Mr. Leonard on a tour of both Wall and Gates Halls and Hulen and Clement Halls. He commented that the halls were the best that he had seen in his several thousands of miles of travel.

October 29, 1964 - Received a letter from Centro Development Corporation, Mr. Glenn T. Lang, Jr., Dallas, Texas, indicating this corporation was interested in providing housing. This firm would like for the College to furnish the land, let them build the dorm, lease the dorm back to the College and then turn it over to the College at the end of the lease period. On January 4, 1965, Mr. Pennington wrote and asked this firm for more details. On February 3, 1965, the information was received which indicates that the Centro Development Corporation would have a new company, the Reglan Company, build, own and manage the residence halls, either on or off campus. They specify that the Glenn Justice Mortgage Company will handle the mortgage financing, the T. C. Bateson Construction Company will be the contractor, that Broad and Nelson will be the architects, that Mr. Robert Levine will be consultant to supervise operation of the student dormitories, that all administration will be approved and sanctioned by the university, that applications for admission will be approved by the university, that dormitories will be an integral part of the university housing program and subject to the rules and controls established.

Mr. Pennington, Mr. Moore and Mr. Taylor met with Mr. Lang on February 10, 1965, to discuss private housing off campus. Mr. Lang said that his firm did not see how they could possibly build any housing on campus any better or cheaper than the College could, and they were interested only in off-campus housing. Mr. Lang would like to know if the College is willing to work with his group and let them build private housing off campus on College Avenue and to take into consideration what they will build when making plans for the next housing on campus (300 to 500 capacity, high rise).

If the College is ready to work with Centro Development Corporation, Mr. Lang and Mr. Nelson, their architect, will come to Lubbock and make a survey.

November 9, 1964 - Received a letter from Mid-American Appraisal and Research Corporation, Chicago, Illinois, stating that they are interested in providing housing for colleges and universities with several arrangements: (1) by leasing a suitable site on campus, (2) by acquiring a suitable site on campus, (3) by acquiring a suitable site off campus, provided it can be incorporated into the present campus under our general plan. On January 5, 1965, Mr. M. L. Pennington wrote this company for further information, and the file indicates that no reply has been received.

December 18, 1964 - Received a letter from Mr. James H. Coker, Coker Brothers Construction Company, Dallas, Texas, stating that they are interested in building and operating residence halls or will build and lease the halls to the school. On January 5, 1965, Mr. Pennington wrote Mr. Coker and advised him that we were in the market for financing and construction of some more housing. The file indicates that no reply has been received from Mr. Coker.

December 31, 1964 - Letter from Mr. M. L. Pennington to Mr. C. F. McElhinney, Senior Vice President, University of Houston, regarding private financing of residence halls. Mr. McElhinney replied that they had recently sold \$16,300,000 in bonds to the private market to be repaid from building use fees, and that Mr. E. S. Emerson of Emerson & Company, San Antonio, Texas, had handled the bond sale for them. They were very pleased with this firm.

December 31, 1964 - Letter from Mr. M. L. Pennington to Mr. James H. Colvin, Business Manager, The University of Texas, regarding their experience in private financing. Mr. Pennington talked with Mr. Colvin over the telephone, and he said there are some off-campus projects for women in Austin and some are contemplated for men. The operation seems to be quite satisfactory. At a later date, Mr. Colvin sent a summary of a trip made by Mr. Charles H. Sparenberg Comptroller, The University of Texas, to visit residence halls operation and construction projects going up at Washington University, St. Louis, Missouri; Indiana State College, Terre Haute, Indiana; Indiana University, Bloomington, Indiana; University of Georgia, Athens, Georgia; Georgia Institute of Technology, Atlanta, Georgia; and Tulane University, New Orleans, Louisiana. The report contained much interesting information.

January 4, 1965 - Educational Facilities Laboratories, Inc., New York, N. Y. Mr. Pennington requested whatever assistance was available to help us in developing our next housing projects. On January 26, 1965, Educational Facilities Laboratories, Inc., sent numerous publications which they feel will

be of help to the College. One publication on low-rise vs. high-rise dormitories is out of print, but they will send us a copy as soon as it is available.

January 5, 1965 - Mr. Floyd Wooldridge, former Board member, had expressed interest in future housing at Texas Tech, so Mr. Pennington wrote him a letter on this date. Mr. Wooldridge is now with Richard Lamb and Company, Dallas, Texas. Mr. Wooldridge answered Mr. Pennington's letter on January 25, 1965, and explained briefly that their company was in the housing business, but they are not yet ready to contact Texas Tech and make a proposition.

January 5, 1965 - Mr. M. L. Pennington wrote Mr. M. M. Hatcher, Rowles, Winston & Company, Dallas, Texas, and asked him for his interest in financing of new residence facilities. On February 3, 1965, Mr. Pennington, Mr. Price and Mr. Taylor met with Mr. Hatcher in Mr. Pennington's office. Mr. Hatcher said one way to build the housing would be to form a tax-free corporation which would allow the College to get its own architect and contractors, construct the facilities as it pleased and to run the operation. The bonds issued by a nonprofit corporation would be tax-free, and the College would not be bound by our existing indentures on other residence halls. The corporation would be backed by the facilities. The interest rate could be under 4 percent. Rowles & Winston would buy the bonds or act as our agent for the sale for a fee. They would give us a guaranteed interest rate or they could bid if we wanted them to. The coverage would be about 1.25; the time would be about 35 years and could be more. The College would have the freedom to borrow for the whole complex. A corporation would allow us to get away from all existing restrictions.

After a very great deal of discussion, it was agreed that there would seem to be no advantage to the tax-free corporation if the housing is constructed on campus.

Mr. Hatcher expressed an interest in off-campus housing and said that his firm would have to survey it before they could give us an opinion. A survey would probably cost them from \$5,000 to \$6,000 which they would be glad to do without commitment on the part of the College, other than that the College would agree to consider it before they spent the money for the survey. They will study the off-campus housing if we wish, and will design and make an offer if it would be considered.

It looks as if a private corporation could have advantages off campus but not on campus. The interest rate could be about 4 percent.

Mr. Hatcher stated that it might be possible to save some funds by the reissuance of existing bonds. He said that he had talked with the HHFA, and they would like to sell some of the bonds the Government is now holding. He said he would check with HHFA.

On February 11, 1965, Mr. M. M. Hatcher, Vice President, Rowles, Winston & Company, Dallas, wrote saying they felt confident, subject to the availability of land at reasonable prices, they could finance the units discussed recently at an interest rate in the range of 4 percent. They would be willing to spend money to make a complete survey.

January 11, 1965 - Letter from Mr. M. L. Pennington to Dr. Joe Ray, President Texas Western College, El Paso, Texas, concerning a new five-story men's hall just off campus. Dr. Ray reported orally that there is a private housing operation off campus, and they are very pleased with it. On January 20, 1965, a letter was received from Dr. Ray containing information on a three-story dormitory with a capacity of 304 (152 rooms) near Texas Western. The rates charged by the private owners run approximately \$500 per semester, as compared to the highest rate charged by Texas Western College in the best dormitory on campus, \$380 per semester. The owners have had some difficulty in filling this dormitory.

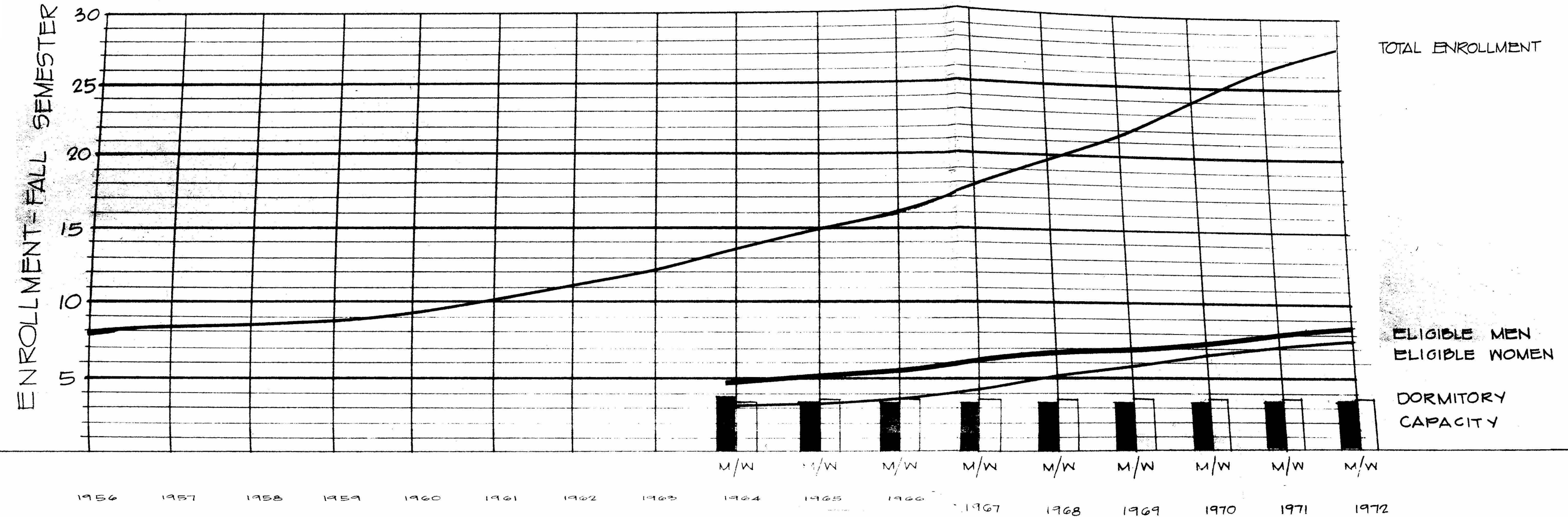
Mr. Allan C. King, 1505 First City National Bank Building, Houston, Texas, can be contacted regarding this off-campus dormitory if desired.

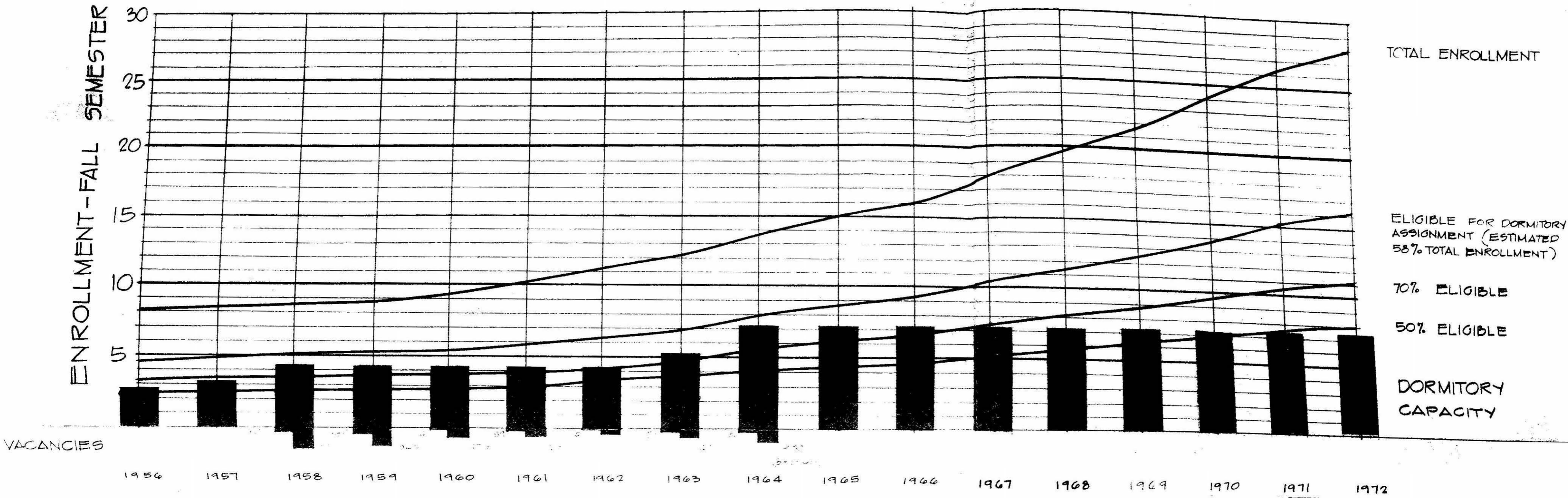
February 15, 1965 - Dr. R. C. Goodwin forwarded to Mr. Pennington a letter from the Webster Dormitory Foundation, Inc., New York, N. Y., expressing interest in an off-campus private housing project for Texas Tech.

February 22, 1965 - Mr. Harold Chapman of J. W. Chapman & Sons, Realtors, came to see Mr. Pennington and said that he had a firm coming to Lubbock which would be interested in building off-campus dormitory housing. It is the firm that has built the Robert E. Lee halls in Austin. Mr. Pennington gave Mr. Chapman the full story on plans, Board action, long-range master plan, etc.

December 31, 1964 - Letter from Mr. Pennington to Mr. John L. Carter, Comptroller, North Texas State University, regarding private financing of residence halls. On January 9, 1965, Mr. Carter replied, stating that NTSU has used private financing to construct dormitories since 1960. The report was that this type of financing has been very satisfactory. Mr. Carter listed four points: (1) The funds are secured much faster. (2) The institution has more freedom in constructing the facility, since there is no engineering and architectural supervision by the lending companies. (3) A relatively simple annual report is all that is required by the bondholders. (4) The same facilities may be used to secure additional funds for building purposes.

The company that NTSU used to provide the above services was Russ and Company, Inc., Alamo National Building, San Antonio. Mr. S. E. Macklin of that company was their agent. They furnished him with the fiscal information to initiate the bond issue. The entire cost of issuing the bonds, legal fees, purchase and sales invoices is \$11 for each \$1,000 bonds issued. Paul Horton of McCall, Parkhurst and Horton, provides the required legal services and is paid by Russ and Company from the \$11 fee.





March 17, 1965

Dear Sir:

Pursuant to an assignment from you to describe and encompass the planning function of the University and to suggest qualifications for the planning personnel, the undersigned herewith respectfully submits its response.

## I. The Planning Function

The elements with which the planners will be concerned include

- A. The total hopes and aspirations of the whole university complex, i.e., (1) the scope of its academic offerings, (2) the relative emphasis to be placed on each school or discipline, (3) the academic depth as well as the scope in breadth to which each school or discipline is to be organized and equipped, (4) the degree of academic excellence hoped for in each of the schools, (5) in short, is this university to be outstanding in one or more of its parts? What is to be its public image and its posture at given times?
- B. the extent and characteristics of student supply.
- C. the extent of and characteristics of the demand for university education as to baccalaureate as well as advanced academic degrees.
- D. the extent and characteristics (including location) of the market for university graduates.
- E. the social and economic environment at selected future times derived from technological, economic, social and ethical developments in the interim. Briefly, what will the world be like at stated future years?
- F. the advances being made in teaching techniques.
- G. the extent and characteristics of teaching and research faculty.
- H. the extent and arrangement of the physical university plant.
- I. the extent and characteristics of physical plant personnel.
- J. the costs of
  - 1. Plant capital
  - 2. Plant operations
  - 3. Academic and research personnel
- K. the extent of financing required.
- L. the method of financing.
- M. the adjustment of the foregoing factors to form an attainable goal in response to the "image" - first above noted A.

## II. Operation of the Planning Function

It is conceived that the first required step is the determination of purpose and goals resulting from a specific statement of the hopes and aspirations of the university, i.e., its "image" as set forth in Paragraph I A. This should be done by the Board of Directors upon recommendation of the President which, in turn, may be predicated upon faculty consensus.

In all probability, the foregoing determination cannot be made adequately and intelligently with the analysis by the planners of the elements enumerated in I B through I M. Because of the "cut and try" method of goal

selection or, shall we say, the necessity of considering alternate choice of goals with corresponding anticipated consequences of each, the planners must investigate and analyze more than one possible alternative. Armed with this information faculty consensus, presidential recommendation and meaningful board action become practical. After the initial statement of goals, the planning function remains an arm of the president. It is charged with only advisory responsibility but has full power of investigation in all facets of university operation, for its purpose is to keep the "University Plan" current by continual investigation and analysis and by advising the President of any inconsistent operational procedures.

#### Qualifications of Planning Personnel

From the heretofore list of functions to be performed, it can be deduced that specialists of a high caliber in these categories are necessary:

1. An economist versed in analytical processes including a familiarity with cybernetics.
2. An academician well versed in academic and teaching processes as well as familiarity with the broad field of education and its national trends.
3. A planner endowed with an understanding and experience in architecture, landscape architecture or engineering; preferably, a deep appreciation of all with extensive experience in one.

Because of the complexity of the elements of planning as enumerated above, it appears impossible to obtain all the required qualifications in one individual. Obviously, a staff or department organization is called for, but what kind of a head should this department have?

Shall the head be three: an economist, an academician and a planning specialist? Hardly.

Shall such a combine or committee be interposed between the planning process and the President? Possibly in a modified way and temporarily.

It is appropriate at this point to call attention to the present provisions for the more limited function of campus planning and its personnel. Actually, it bears some resemblance to the suggested operation, although presently it has a much more limited objective and it utilizes only part-time help for an operation requiring the full-time occupation of a whole staff endowed with a much broader scope of specializations, each demanding greater depth perception than presently required.

In order to begin implementation of the new concept of university planning, it is suggested that the present Campus Planning Committee be instructed to suggest nominees for a position which might be called Vice President in Charge of University Planning, that the nominee's duties and qualifications be consistent with the foregoing statements and that he be considered the head of department which shall contain specialists in the disciplines above mentioned. Obviously, the department must be reinforced with many lesser sciences, skills and helpers to accomplish the so-called "spadework."

Subsequent to the appointment of the University Planner and for an appropriate time of departmental organization, the present Campus Planning Committee (augmented if desired) may act as a consulting committee to the planner.

/s/ E. J. Urbanovsky