SOUTH BEND-MISHAWAKA CAMPUS

MASTER PLAN

INDIANA UNIVERSITY

MARCH 15, 1966

The South Bend-Mishawaka Campus
of
Indiana University
Master Plan

PRECIS

A. OBJECTIVES

Plans for the orderly development of the South Bend-Mishawaka Campus over the next decade are designed to achieve the following goals in a programatic fashion:

1. To accomodate an unprecedented number of college enrollees from this region of Indiana who plan to matriculate in college following high school graduation;

2. To provide collegiate level courses and programs (in some cases through four-year degree programs) for students in this region who prefer to complete a major portion of their college work within commuting distance of their home locality;

3. To make available a broad range of continuing education courses and programs, including cultural presentations, for the adult population of this region;

4. To improve qualitatively the total educational/cultural effort of the South Bend-Mishawaka Campus; and,

5. To encourage and abet professional growth of the faculty through provision of facilities and resources which support basic and applied research.

B. ABSTRACT OF REQUIREMENTS

1. Summation of total program

	1966-67	1967-68	1974-75
a. Number of baccalaureate programs	2	7	22-25
b. Number of resident faculty	56	76	241
c. Number of associate faculty	69	75	79
d. Number of academic administrators	6	9	9
e. Number of administrative support, clerical, and maintenance personnel	42	57	128
f. Fall Semester credit student enrollment	3,000	3,450	7,027

2. Total operational costs (thousands)

		1966-67	1967-68	1974-75
a.	Resident faculty	$ 500,000	$ 850,000	$3,600,000
b.	Associate faculty	$ 170,000	$ 225,000	$ 475,000
c.	Academic Administration	$ 66,000	$ 108,000	$ 162,000
d.	Academic support, clerical and maintenance services	$ 175,000	$ 300,000	$ 930,000
e.	Supplies, expenses and equipment	$ 270,000	$ 440,000	$1,550,000
f.	Square footage and land	$	$	$
	Totals	$	$	$

3. Income projections (thousands) $ 1,000 $ 1,250 $ 3,000

I. ACADEMIC PROGRAMS

By mandate of the Indiana legislature the South Bend-Mishawaka Campus will be giving its first baccalaureate degrees in 1967. These degrees will be in elementary education and three fields of business: accounting, marketing, and management. Lengthy discussions at South Bend and elsewhere lead us to make the following recommendations for development of additional degree programs in an orderly pattern of development so that by 1974-75 the South Bend Campus will be a fairly comprehensive undergraduate institution. If certain recommendations already being discussed should materialize, the main difference between what we propose and what will come to pass will be a speeding up of the whole process--that is, the ten-year plan may become something close to a five-year plan.

The attached sheets reveal our present estimates of enrollment projections to 1975 and the number of full-time-equivalent appointments necessary to teach the estimated sections. In addition, the "Preliminary Report" sheet of the South Bend Campus Curriculum Committee sets up a timetable through 1971 of the areas in which we would propose that degrees be granted in the specified fields. By 1975 at the latest we would propose that the remaining subjects--e.g. Philosophy, Geography-Geology etc. typically taught in a comprehensive undergraduate institution be developed to degree status.

In making recommendations concerning faculty we would propose that we should reach a ratio of 80%-90% sections taught by full-time faculty members to 10%-20% sections taught by associate faculty--this would be achieved in roughly graduated steps by 1974-75. It is difficult at this point to predict the exact number of full-time persons needed in a given field before an appropriate bachelor's degree can be given. But we assume that given a college of our present and developing type that an absolute minimum of three full-time faculty members would be necessary in any field. We have applied a proportionate figure for each indicated year for the periods 1966-67, 1967-68, and 1974-75 that reflects an orderly growth of fields already developed or developing and those that are proposed for development.

We have not attempted to detail either the cost or the scope of various master's degree programs. Nor have we made estimates of the needs for and costs of Purdue University programs, or programs that will be offered through the Division of General and Technical Studies, or non-credit programs. We assume that, given a traditional, comprehensive undergraduate Indiana University four-year curriculum, the extensions and modifications needed for the programs just mentioned will follow as a matter of reasonably regular course.

Since everything else--costs, plant needs, faculty size, administrative staff, etc.--follows from the kind and scope of program intended, we have kept the remainder of these summary narrative portions brief. The tables and documents which follow these brief summaries present the rationale behind, and the means to achieve, our proposals.

II. RESIDENT AND ASSOCIATE FACULTY

In keeping with our proposal that as much of our program as possible be taught by resident faculty, Table I lists faculty needs by department for the given years. We assume that the bulk of our teaching will be done in the day-time hours. That alone will establish a strong need for full-time faculty. Since we will not have a large graduate program to draw upon and cannot depend on graduate students from other schools, the need for full-time faculty is intensified. A final consideration is that only full-time staff can bring a total commitment to the institution, a commitment which is particularly important at a non-residential campus.

III. ADMINISTRATIVE AND SUPPORT STAFF

Table II presents a proposed outline for administrative structure. We propose that the major officers that appear to be necessary be secured by 1967-68, if possible. In addition to the Director, two Assistant Directors, Librarian, and Administrator of Special Programs, these officers should include a third Assistant Director (for Business Affairs), a University Relations man, a Director of Planning and Development, and an Assistant to the Director. Although the line between "academic-administrators" and "administrative-support" is difficult to establish, with consequent discussion of what proper categories are, we suggest that "administrative-support" include admissions officers, counselors, Junior Division officers, audio-visual coordinators, technicians, laboratory assistants, registrars, librarians (other than the head librarian), and perhaps a number of high-level clerical appointments who have large-scale responsibility. Departmental assistant chairmen and similar officers are being considered in this plan as faculty rather than in some other category. Secretaries and maintenance personnel, as well as counselors, admissions officers, etc. have been calculated in a rough approximation of Division-wide suggestions as to proper ratio of such officers to total numbers of students and faculty, and amount of assignable space.

IV. ENROLLMENTS

Table III, with its extensive footnotes, contains our enrollment projections and related considerations through 1975-76. Table IV, which may be considered a supplement to Table III, gets at essentially the same information in a somewhat different way. Table V, the Preliminary Report of the Curriculum Committee, should be considered in connection with Tables I, III, and IV as providing additional rationale for faculty development in the pattern that we propose.

V. ACADEMIC AND SUPPORTING PHYSICAL REQUIREMENTS

The appended reports of the South Bend Campus Physical Plant Committee, dated October 27, 1965; November 24, 1965; and February 25, 1966 give estimates of physical facilities needed. We assume that the Division of University Extension, in consultation with the University's physical plant department, will give necessary corroboration or make necessary corrections in light of all-University space-planning formulas. It appears to us to be critical that definite commitments to develop in approved ways be made within the next few months.

VI. FINANCIAL REQUIREMENTS

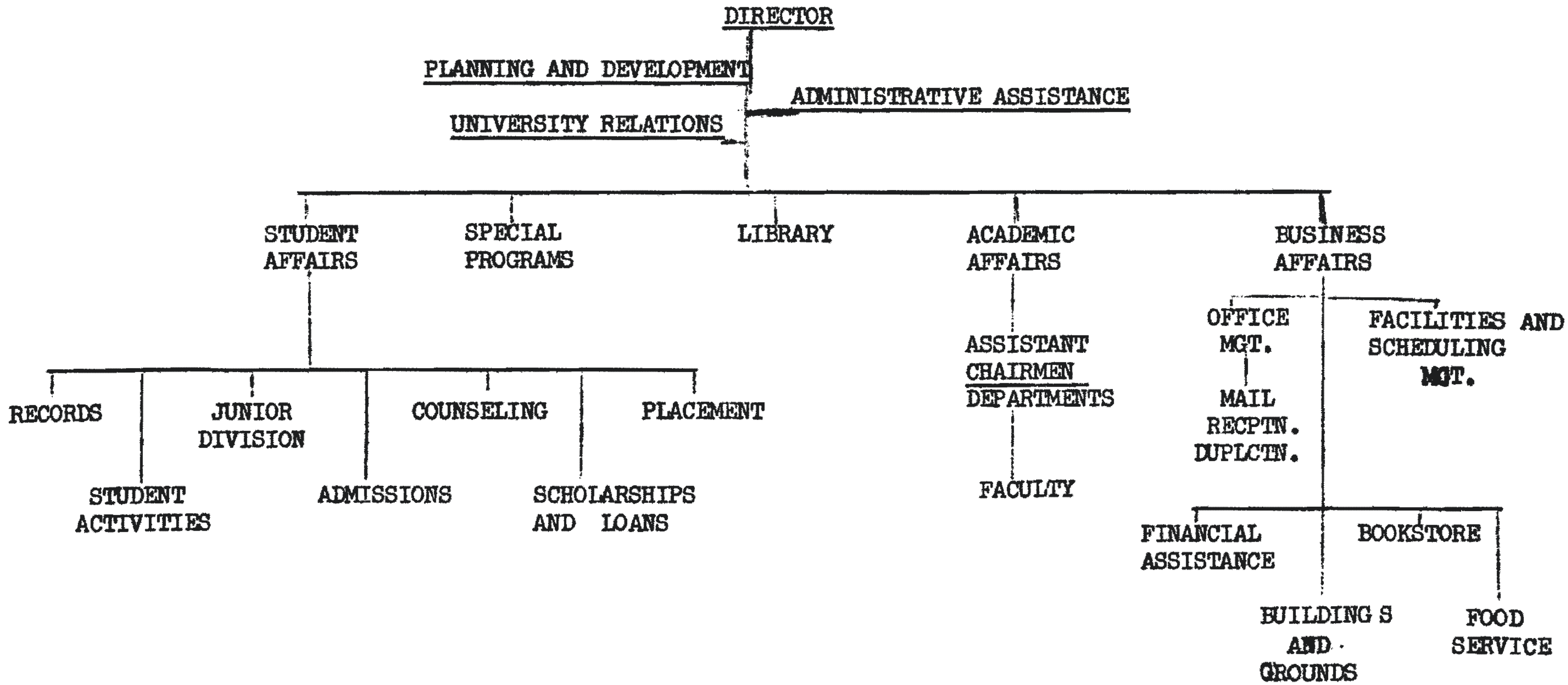
Table VI provides an estimate of financial requirements necessary to offer the program proposed. Once again, we assume that necessary corraboration or correction will be made in light of all-University formulas currently being established or else not yet possible to project.

TABLE I

Academic Programs and Class Section Distribution

(1)	1966-67			1967-68			1974-75		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Discipline	No. of Sections	No. of Res. Fac.	No. of Assoc. Fac.	No. of Sections	No. of Res. Fac.	No. of Assoc. Fac.	No. of Sections	No. of Res.Fac.	No. of Assoc. Fac.
Allied Health Sciences	-	-	-	1	-	1	2	-	2
Anatomy/Physiology	-	-	-	-	-	-	2	-	2
Anthropology	-	-	-	1	-	1	4	1	1
Astronomy	-	-	-	1	-	1	3	1	-
Bacteriology	-	-	-	1	-	1	3	1	-
Botany	3	1	-	5	1	2	8	3	-
Business	24	5	4	30	8	3	72	22	4
Chemistry	11	2	3	12	3	2	27	8	3
Economics	11	3	1	13	3	1	40	12	3
Education	26	9	-	32	11	-	82	30	-
Engineering	2	-	1	2	-	1	10	2	2
English	59	8	20	65	10	20	150	35	20
Fine Arts	9	2	3	10	2	3	22	6	3
Folklore	1	-	1	1	-	1	5	2	-
French/Spanish	6/6	1/1	2/2	7/7	2/1	1/2	15/15	4/4	2/2
Geography	4	-	2	6	1	2	10	3	-
Geology	-	-	-	1	-	1	4	1	1

TABLE II



Campus Organization
Chart listing essential
functions.

TABLE III

INDIANA UNIVERSITY-SOUTH BEND CAMPUS
ENROLLMENT AND STAFF PROJECTIONS, 1966-1975
(SEE ATTACHED CODE FOR NOTES AND STATISTICAL METHODS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
1960-61	1318	169	7,322	5.6	610		1858	3616					
1961-62	1565	278	9,515	6.1	796			4076					
1962-63	1714	309	10,981	6.4	915			3758					
1963-64	1851	371	12,619	6.8	1,050			3848					
1964-65	2028	469	14,711	7.3	1,230			4212					
1965-66	2454	793	20,267	8.2	1,688			5203					
1966-67	3000	1,200	26,100	8.7	2,175	54,128	2884	5301	290	870	87		
1967-68	3450		31,740	9.2	2,645	65,954	2841	5131	353	1,059	106	3300	30,360
1968-69	3967		38,480	9.7	3,266	79,604	2909	5162	428	1,284	128	3630	35,211
1969-70	4363		44,502	10.2	3,636	92,114	3034	5289	494	1,482	148	3993	39,930
1970-71	4800		51,360	10.7	4,280	105,896	3257	5579	571	1,713	171	4193	41,930
1971-72	5280		58,080	11.0	4,840	119,496	3457	5823	645	1,935	194	4403	44,030
1972-73	5808		63,888	11.0	5,324	131,444	3574	5928	710	2,130	213	4623	46,230
1973-74	6389		70,279	11.0	5,857	144,594	3600	5881	781	2,343	234	4854	48,540
1974-75	7027		77,297	11.0	6,442	159,031	3627	5824	859	2,577	258	5097	50,970
1975-76	7729		85,019	11.0	7,085	174,921	3691	5832	945	2,835	284	5362	53,620

CODE FOR SOUTH BEND CAMPUS PROJECTIONS

1. Year.

2. Actual fall credit enrollment 1960-61 through 1965-66. Projected fall credit enrollment 1966-67 through 1975-76.

3. Actual full-time credit enrollment 1960-61 through 1965-66. Projected enrollment 1966-67. Full-time enrollments beyond 1966-67 too problematic to venture prediction at this time.

4. Actual fall credit hours taken 1960-61 through 1965-66. Projected fall credit hours 1966-67 through 1975-76.

5. Actual fall average credit hours per student for 1960-61 through 1965-66. Projected fall credit hours per student 1966-67 through 1975-76. From 1960-61 through 1965-66, there was an average increase of about one-half credit hour per year, with a .9 credit hour jump recorded from 1964-65 to 1965-66. Projections through 1970-71 made on basis of one-half credit hour gained per year, with average hours projected to be leveling off at 11 in 1971-72.

6. Full-time equivalent students (hours divided by 12) 1960-61 through 1965-66. Projected full-time equivalent enrollment in fall 1966-67 through 1975-76 (hours divided by 12).

7. Total credit hours per year projected for 1966-67 through 1975-76. The figure arrived at represents a summer enrollment of 60% of the previous fall enrollment at an average of 4 credit hours per student, plus the fall enrollment listed in column 4, plus a spring enrollment of 10% less than the fall enrollment at an average of .5 of an hour less in spring than in fall with average hours for spring leveling off in 1971-72 at 10.5.

8. Apart from the figure for 1960-61, the remaining figures in this column represent the projected number of students going to college from Elkhart and St. Joseph Counties as new freshmen from the June graduating class of the year indicated. About 83% of the students at the South Bend Campus come from St. Joseph and Elkhart Counties.

9. Actual high school graduation figures for St. Joseph and Elkhart Counties 1960 through 1965. Projected graduates from these two counties for 1966 through 1975.

10. Number of sections projected for fall semester 1966-67 through 1975-76. These figures were arrived at by assuming that each section would represent a total of 90 credit hours in enrollment.

11. Number of credit hours taught in fall projected for 1966-67 through 1975-76. This figure arrived at by multiplying number of sections by 3 credit hours per section.

12. Number of full-time academic and academic-administrative positions required to teach all the sections, assuming that each full-time academic or academic-administrative appointment would be teaching an average of 10 hours.

German/Slavic	8	1	2	9	2	1	15	4	2
Government	8	2	1	10	2	2	20	6	2
HPE&R	3	-	2	4	1	-	20	5	2
History	14	4	1	16	5	1	35	11	2
Home Economics	2	-	1	3	-	2	6	1	1
Journalism	-	-	-	1	-	1	6	1	1
Library Science	1	-	1	2	-	1	10	2	2
Linguistics	1	-	1	2	-	1	4	1	1
Mathematics	16	2	4	18	3	4	40	11	3
Music	9	1	3	11	2	3	35	10	2
Nursing	-	-	-	-	-	-	6	1	1
Philosophy	8	2	1	10	2	2	20	5	2
Physics	2	1	-	3	1	1	6	2	-
Police Administration	-	-	-	-	-	-	-	-	-
Psychology	19	4	3	23	6	3	47	14	3
Radio and TV	-	-	-	1	-	1	10	3	-
Social Service	-	-	-	-	-	-	5	2	-
Sociology	14	3	4	17	5	2	40	12	2
Speech & Theatre	21	3	6	25	4	6	50	12	6
Zoology	2	1	-	3	1	1	10	3	2
	290	56	69	353	76	75	859	241	79

13. Projected enrollments 1967-68 through 1975-76 made with a much more conservative estimate than in the body of the table proper.

14. Number of fall credit hours projected with the average number of hours taken leveling off at 10 per student by 1969-70.

NOTES:

A. Projections for fall enrollment for 1966-67 made on the basis of roughly a 20% rise in heads. Projections for 1967-68 and 1968-69 made on the basis of a 15% rise in heads. Projections for 1969-70 through 1975-76 made on the basis of a 10% rise each year. Since the graduating pool does not drastically increase, the enrollment rise will reflect our getting a greater share of the average pool and a rapidly growing retention rate.

B. The number of sections projected in column 10 is based on the assumption that continuing patterns of class size will obtain in the future. Similar considerations mark the projections in columns 11 and 12. It may be that given all kinds of possible changing patterns, the figures will be too high or too low--perhaps considerably so.

C. Since the implications of the table proper (columns 2 through 12) are so staggering, columns 13 and 14 reflect a far more conservative estimate, with head rise for 1967-68 through 1969-70 estimated at 10%, and from 1970-71 through 1975-76 at 5%, with a corresponding leveling off of 10 hours per student by 1969-70.

D. The implications of all this are as follows:

   a. Somewhere in the early 1970's we are in all likelihood going to have the equivalent of at least 5,000 full-time students. This means that we should be building and planning at once for that minimum number of students.

   b. The projections are made on the assumption that we can become a full-time student institution as rapidly as we make the commitment to do so.

   c. The anticipated rise in enrollment reflects the conviction that we will be a comprehensive public institution, with liberal arts majors in 20-22 different fields by the early 1970's (with secondary education figuring in here also), as well as with programs in business and elementary education as already announced.

   d. From this point on, we need far more refined and sophisticated registrar techniques, so that within two or three years we can confidently revise these figures on the basis of our experience during those years. Past patterns, and bases for predictions, appear at the moment to be extremely unreliable guides.

E. The projections do not take into account the addition of any particular Purdue University programs.

F. The projections do not take into account any space or staff needs to offer any programs that might be developed under the new Division of General and Technical Studies.

G. The projection does not take into account the non-credit program, where decisions about size and direction should be made systematically and reasonably soon. However, since it appears that special programs offerings will be operating largely on a self-sustaining basis, no particular subsidy considerations need be made. Provision should be made in space planning for proper facilities to offer credit and non-credit workshops, special seminars, institutes etc. appropriate to our function as a metropolitan commuting public campus.

TABLE IV

CURRENT ENROLLMENT PROJECTION
(Undergraduate and Graduate)

Location: South Bend-Mishawaka Campus

Date: March 15, 1966

Year	(1) No. of Area (*) High School Graduates	(2) % of Grads who Matriculate	(3) Projected Fall Enrollment Students	Hours	(4) Average Fall Hours per Student	(5) Projected Total Hours for the Year**
1962-63	3758		1714	10981	6.4	23178
1963-64	3848		1851	12619	6.8	25670
1964-65	4212		2028	14711	7.3	30863
1965-66	5203		2454	20267	8.2	42468***
[1] 1966-67	5301	54.4	3000	26100	8.7	54128
1967-68	5131	55.3	3450	31740	9.2	65954
1968-69	5162	56.4	3967	38480	9.7	79604
1969-70	5289	57.4	4363	44502	10.2	92114
1970-71	5579	58.4	4800	51360	10.7	105896
1971-72	5823	59.4	5280	58080	11.0	119496
1972-73	5928	60.3	5808	63888	11.0	131444
1973-74	5881	61.2	6389	70279	11.0	144594
1974-75	5824	62.3	7027	77297	11.0	159031
1975-76	5832	63.3	7729	85019	11.0	174921

(*)Considered as graduates of major high schools in the immediate regional area; these are high schools from the county in which the facility is located and major high schools from contiguous counties which supply a significant enrollment at the facility.

**Figure arrived at as explained in Footnote 7 of Table III.

***2nd Semester, 1965-66, estimate.

[1]Years 1966-75 are projections.

TABLE V

Preliminary Report of the Curriculum Committee on the Development of Majors

The Curriculum Committee recommends that the priority schedule for the projected development of departmental majors at the South Bend Campus be as follows:

	Bachelor's Degree	Master's Degree
1967		
	Business	
	Elementary Education	
1968		
	English	
	Psychology	
	History	
	Sociology	
	Chemistry	
1969		
	Government	
	Economics	
	Spanish	
	Mathematics	
	Biology	
	Secondary Education	
1970		
	German	Business
	French	English
	Speech	MAT
1971		
	Music	History
	Physics	Psychology
	Zoology	Sociology
	Art	

We emphasize that these recommendations reflect our preliminary thinking about the development of Arts and Science majors only, even though we are fully aware that development of minors in the college of Arts and Sciences as well as majors and minors in non-Arts and Science Colleges and/or programs such as Allied Health Services, Social Service, HPER, and Nursing Education need attention as well. Still, it is the recommendation of the Committee on Curriculum that we give first priority to the development of Arts and Science majors as indicated above.

TABLE VI

FINANCIAL REQUIREMENTS

In order to fulfill this plan, in the time phases indicated, the following amounts of funds will be required:

APPLICATION	AMOUNT (Thousands)		
	1966-67	1967-68	1974-75
A. RESIDENT FACULTY 1966-67 average approx. $9,600. 1967-68 average approx. $10,600. 1974-75 average approx. $15,000.	$ 500,000	$ 850,000	$3,600,000
B. ASSOCIATE FACULTY 1966-67 average approx. $600. 1967-68 average approx. $700. 1974-75 average approx. $1,000.	$ 170,000	$ 225,000	$ 475,000
C. ACADEMIC ADMINISTRATION 1966-67 average approx. $11,000. 1967-68 average approx. $12,000. 1974-75 average approx. $18,000	$ 66,000	$ 108,000	$ 162,000
D. ACADEMIC SUPPORT, CLERICAL AND MAINTENANCE SERVICES 1966-67 average approx. $4,200. 1967-68 average approx. $5,200. 1974-75 average approx. $7,200.	$ 175,000	$ 300,000	$ 930,000
E. SUPPLIES, EXPENSES AND EQUIPMENT Figured at 30% of costs in items a.-d.	$ 270,000	$ 440,000	$1,550,000
F. SQUARE FOOTAGE AND LAND	$	$	$
GRAND TOTAL BY YEAR			
INCOME PROJECTIONS (Thousands)	$ 1,000	$ 1,250	$ 3,000

Income figured at $15 per credit hour plus estimate for out-of-state fees, theatre income, Special Programs income, Bookstore sales, and miscellaneous.

Physical Plant Committee
October 27, 1965
10:00 A.M.

Members present: Messrs. Pepperdine, Robinson, Siegel and Thaler.
Advisory Member Present: Mr. Ladewski.

The committee started its business by discussing plans for physical plant expansion. The committee concluded that the following planning for the following facilities should be undertaken at once:

1. Library
2. Student Union
3. Classroom, laboratory, and faculty office building.

Further the committee concluded that these facilities must be completed as of the following dates: Library - September 1968, Student Union - September 1969, and Classroom bldg. - 1969 to 1970.

In view of the need for land on which to place these buildings and to provide additional parking space the committee agreed to recommend that steps be taken to purchase the land adjacent to the present facilities on the south side of the St. Joseph River. Tentatively the committee agreed that the future library, student union, power plant and parking facilities be located on this property. Further the committee tentatively concluded that the new classroom building be located along the Mishawaka Avenue between Greenlawn and 20th Street. The committee further recommends that a footbridge be constructed across the river as facilities are completed south of the river.

Discussion now centered on the form of the library building. The following features of the building were agreed upon:

1. Stacks for 250,000 volumes so constructed as to permit future construction to accomodate a total of 500,000 volumes.
2. Forty offices for faculty and library staff.
3. Auditorium to seat 300 persons.
4. Four class rooms seating 50-60 persons.
5. Four seminar rooms with seminar table to seat 20-25 persons.

The Committee agreed to continue discussion of the library at its next meeting and to invite the librarian to participate. Further the Committee diredted the chairman to circulate to pepresentatives of each department a request for enumeration of facilities that would be needed by that department in the new classroom building.

PHYSICAL PLANT COMMITTEE
November 24, 1965
9:30 A.M.

Members present: Messer. Allen, Pepperdine, Robinson, Siegel, and Thaeler.
Guest: Miss Zimmerman

The committee started its business with continued discussion of plans for a new library building. Miss Zimmerman presented a study she had undertaken at the request of this committee. (A copy of this report is included here). The committee agreed on the following recommendations to be made to the Faculty Senate:

The Physical Plant recommends that planning be initialed immediately for a library building that is to be completed by September, 1968. This building will include at least the following:

1. Stacks for 250,000 volumes so constructed as to permit future construction to accomodate a total of 500,000 volumes. These stacks are to be constructed so that they may be operated as open stacks.
2. Forty offices for faculty and library staff.
3. Auditorium to seat 300 persons.
4. Four class rooms seating 50-60 persons.
5. Four seminar rooms with conference tables to seat 20-25 persons.
6. Seating capacity for 2100 persons of which 650 are to be in the form of individual carrels, i.e. seats at tables with individually partitioned study areas; and 50 in the form of individual research carrels, i.e. individual rooms with locks.
7. Reserve book area
8. Lounge area on each floor and a staff lounge.
9. Facilities for the following:
   a. microfilm storage, reading, catalogs, etc.
   b. listening rooms
   c. technical processing
   d. card catalogs, circulation desk.

The committee agreed to present the following recommendations to the Faculty Senate, these recommendations having been discussed at previous meetings:

1. That steps be taken to acwuire the parcel of land adjacent to the present campus and located on the south side of the St. Joseph River.
2. That the following new buildings are necessary for needed plant expansion of the South Bend Campus:
   Library - to be completed September, 1968
   Student Union Building - to be completed September 1969
   Classroom, office, lab. building - to be completed 1969-1970
3. That these three buildings be located on the land acquired south of the St. Joseph River.
4. That a footbridge should be constructed across the St. Joseph River.
5. That a study be made of the alternatives of expanding the present heating plant or constructing a second heating plant south of the river.

The Committee recommended that funds be requested to increase the size of existing paved parking facilities. Assuming that the committee's recommendations concerning the placement of future buildings is accepted, we recommend that the present parking lot be extended in the unimproved areas on either side of the Butcher property. Such an expansion should accomodate about 250 cars.

In view of increases in the faculty for next year the committee recognizes the need for about 21 new faculty offices. This figure is based on the assumption that 25 new faculty will be appointed between the present and September, 1966; the recommendation that the use of rooms 38, 39, 40, and 41 as faculty offices will be terminated as of September, 1966 and that 10 additional faculty offices will be available in the Huckins Building.

The committee recommends that funds be requested for the renovation of four of the residences owned by the university as faculty offices. The committee recommends that the residences at 1920 and 1924 Mishawaka Avenue and two additional residences be so renovated. In view of the experience with the residence at 1916 Mishawaka Avenue the committee recommends that $18,000 be sought for this project.

LIBRARIAN'S REPORT TO THE PHYSICAL PLANT COMMITTEE

WEDNESDAY, NOVEMBER 24, 1965

The library needs of the South Bend Campus are real and urgent. We really should have a new library building for the fall semester, 1966. Our present facilities according to plans which Dr. Reynolds has drawn up will only hold 25,000 volumes. By next fall we will be filled to capacity. Our reading area is now filled to capacity several times a week. What we will do next year? We have seating for 124 (According to college library standards you should have seating for 30% of your student body) with just our present full-time student body of 802 we should have seating for 265. This does not even take our part-time student body in consideration.

The most important thing that first must be resolved is, What is the future of the South Bend Campus, are we going to develop a graduate program, will we have a technical school affiliated with this institution, what are the projected enrollments for the next 10 to 15 years?

The library building should be located in the center of the academic axis. In order for this to be possible, there should be a master campus plan. We have to take into consideration the following points:

a. Geography of the campus.
b. Center of gravity of faculty use of the building.
c. Confluence of student traffic.
d. Access to utilities.
e. Architectural harmonies.

The building should be modular, and it should be air-conditioned. No one knows exactly what forms will be used in the future for storage of information--microfilms, microfiche, tapes, etc. maybe all of these. The best we can do is to make certain that the space we provide is capable of adaptation. We should plan the building to house at least 300,000 volumes. This would take 30,000 square feet allowing space for carrels around the edges of the stacks, stairwells, and aisles. This does not take into consideration the service areas, lounge areas, reading areas, etc. 250,000 to 300,000 volumes is the goal that Colorado College is striving toward. The University of Waterloo in Ontario has a population of 3,000 to serve and their book capacity is 240,000. The State College of Iowa plans to have a population of 10,000 by the 70's, and they planned their library to house 300,000 volumes. They will offer graduate degrees on the master's level and a 6 year specialist program in education.

In this building we should have seating capacity for 30% of the student body. 1/3 of the seating capacity should be individual carrels. I visualize a modular building with 100% open stack areas(even though the plans for the new library at Bloomington provide for closed stacks) with 2 floors, a basement and possibly a mezzaine. We must make provision in this library for 5 kinds of reading facilities:

1. Reading room tables
2. Carrels
3. Research carrels.
4. Conference and discussion rooms
5. Seminars & faculty research offices

The discussion, conference, and seminar rooms should be sound-proof. If the university decides to house the audio-visual equipment in the library (this is fairly common) we should have listening rooms (at the Air Force Academy library, they have a stereo- hi-fi system in a room which seats 40 people), semi-dark rooms for the use of microfilm, microcard readers, areas to store tapes, charts, maps, etc.

I recommend that whatever architectural style is decided upon by the University that we use the modular measurement in our plans. This modular measurement uses 4" as an unit and eliminates much waste in materials. This measurement was devised by the building industry to eliminate waste. This proposed new library will probably cost in the neighborhood of $2,000,000 to $2,500,000.

The architedt should not solely plan the building, but should work in close consultation with the librarian and library faculty committee. The building should be so designed that expansion can easily be made when necessary.

To: All Full-Time Faculty

Subject: Attached Document concerning recommendations for a proposed new campus building.

Date: February 25, 1966

The attached material presents in outline form the spatial alterations to be incorporated in the projected new classroom-lab-office building for the South Bend Campus.

The Physical Plant Committee respectfully submits this material to the faculty at large for their analysis, comments, recommendations and criticisms.

Recommendations of the Physical Plant Committee

for a new Building to be completed in 1969-1970

The Physical Plant Committee has endeavored to make a study of the requirements of the South Bend Campus for space during the next several years. The Committee believes that a new classroom, lab, office building can not be completed until late in the academic year of 1969-70. Further the Committee assumes that such a building must be of sufficient size to accomodate our space needs through the academic year of 1973-74 since we believe it is unrealistic to expect that a second, comparable building will be completed prior to that time. In that year (1973-74) it is anticipated that there will be about 4,800 full-time day students or equivalent in part-time students on the campus. In addition there will be 600 full-time evening students or equivalents in part-time students. The following recommendations assume that the plans for a library and student union building, already proposed, are achieved.

The Committee recognizes that numerous facilities such as teaching labs, art studios, and music rooms available in the present building and the Huckins building will have to be duplicated in a new building. It is not realistic to contemplate that such facilities can be used if spread out over several buildings. The space currently occupied by these facilities can be renovated as general classrooms. Further it is anticipated that as new buildings become available the increasing space requirements of the administration can be met in the present building.

The following requirements are based primarily on answers received from a questionnaire circulated by the Committee to each department represented on the faculty.

A. Teaching Labs

1. Chemistry

General 4 @ 1200 sq. ft.	4800 sq. ft.
Organic	1400 sq. ft.
Analytic and Physical	1400 sq. ft.
Biochemistry	1400 sq. ft.
Undergraduate Research	1200 sq. ft.

2. Biology

Botany 4 @ 1200 sq. ft.	4800 sq. ft.
Zoology 4 @ 1200 sq. ft.	4800 sq. ft.
Undergraduate Research 2 @ 1000 sq. ft.	2000 sq. ft.

3. Physics

General 3 (4?) @ 1200 sq. ft.	3600 sq. ft. (4800 sq. ft?)
Undergraduate Research	1000 sq. ft.

4. Geology

General 3 @ 1400 sq. ft.	4200 sq. ft.
Undergraduate Research	1000 sq. ft.

5. Geography

General 2 @ 1400 sq. ft.	2800 sq. ft.

6. Music

Large ensemble rehearsal rooms 3 @ 2000 sq. ft.	6000 sq. ft.
Small rehearsal rooms 2 @ 1000 sq. ft.	2000 sq. ft.
Rehearsal-Lecture Rooms 3 @ 2000 ft.	6000 sq. ft.
Practice rooms 20 (+) 160 sq. ft.	3200 sq. ft.
Teaching Studios 15 (+) @ 200 sq. ft.	3000 sq. ft.

7. Fine Arts

Studio Rooms, drawing and painting 2 @ 1500 sq. ft.	3000 sq. ft.
Studio Rooms, design and art education 2 @ 1500 sq. ft.	3000 sq. ft.
Studio Rooms, ceramics and sculpture 2 @ 1500 sq. ft.	3000 sq. ft.

8. Education	
Tape viewing facility	1200 sq. ft.
9. Psychology	
General Undergraduate Labs	3000 sq. ft.
Advanced special labs	1500 sq. ft.
10. Statistic Labs.	
Large (30 seats)	
2 @ 1000 sq. ft.	2000 sq. ft.
Small (10 seats)	500 sq. ft.
B. Auxillary Facilities	
1. Chemistry	
a. Instrument room	
2 @ 400 sq. ft.	800 sq. ft.
b. Preparation rooms	1200 sq. ft.
c. Balance Room	600 sq. ft.
d. Faculty Research Labs.	
4 @ 500 sq. ft.	2000 sq. ft.
2. Biology	
a. Preparation Rooms	
8 (one/teaching lab) @ 300 sq. ft.	2400 sq. ft.
b. Storage (several rooms)	1000 sq. ft.
c. Animal Room	1000 sq. ft.
d. Faculty Research labs.	
8 @ 500 sq. ft.	4000 sq. ft.
3. Physics	
Storage	1000 sq. ft.
Faculty Research labs.	
4 @ 500 sq. ft.	2000 sq. ft.
4. Geology	
a. Storage	1000 sq. ft.
b. Faculty Research labs.	
3 @ 500 sq. ft.	1500 sq. ft.
5. Psychology	
Faculty labs (Research)	1320 sq. ft.
Storage and animal rooms	720 sq. ft.

6. General Science Facilities
   a. Stock room [Chemistry, Biology, Physics Geology, Psychology (?)] — 4000 sq. ft.
   b. Glass blowing shop — 600 sq. ft.
   c. Electronics shop — 600 sq. ft.
   d. Wood and metal shop — 600 sq. ft.
   e. Photographic dark room 2 @ 600 sq. ft. — 1200 sq. ft.
   f. Studio for staff illustrator — 300 sq. ft.

7. Music
   a. Lab for acoustical and sound equipment — 400 sq. ft.
   b. Storage — 1200 sq. ft.

8. Fine Arts
   a. Slide storage and viewing — 300 sq. ft.
   b. Faculty Studios 4 @ 500 sq. ft. — 2000 sq. ft.

9. General Facilities
   a. The following special utilities are to be available, where appropriate, in the building:
      1). 220 volt. A.C.
      2). Distilled water
      3). Compressed air
      4). Vacuum
      5). Gas
   b. Faculty lounge or lounges — 2000 sq. ft.
   c. Computer center — 2000 sq. ft.
   d. Staff lounge — 2000 sq. ft.

II. General lecture rooms, seminar rooms, etc.
   A. Total number of stations needed by 1973-75 would be about 3,500. See Appendix 1 for the basis of this figure.
   B. Total stations already available by room size.
      A. Present building

150	Stations	3	(018, 118, 126)
80	"	2	(044, 121)
70	"	3	(020, 021, 120)
60	"	2	(007, 015)
50	"	1	(017)
40	"	2 (3)	(010, 117, 132)
30	"	5	(014, 016, 114, 115, 116)
20	"	2	(009, 011)
		20	

Total stations 1260

Note: 1. Room 132 to become second language lab.
2. Room 044 to become general classroom.
3. Room B03 to become theatre storage.
4. Library, and space equivalent to rooms 134 and 135 to be renovated to meet administrative needs.
5. No plans are proposed for the student lounge area.

B. Huckins Building

50	Stations	7	(105, 107, 116, 117, 118, Lab. 1, Lab. 2)
40	"	10	(100, 101, 102, 103, 104, 106, 109, 110, 111, 112)
20	"	2	(113, 114)
	Total	19	with 790 stations

Note: 1. Labs No. 1 and 2 (Psychology and Biology) are to be duplicated in the new building permitting the renovation of these as general class rooms.
2. No plans are proposed for the student lounge or art studio
3. No plans are proposed for Room 119 which is intended as a Purdue engineering program lab.

C. Library

Current recommendations for the library call for four classrooms with 55 stations each and four with 20 stations. Total 300 stations in eight rooms.

D. Data available from other universities suggests that with an enrollment of 4,800 full-time students that 3,800 classroom stations should be available. (See Appendix A). Current building and those planned will supply 2,350 stations in 47 rooms. Therefore at least, 1,450 stations should be available in the new building. Further, data available suggests that with 4,800 students a total of 70 classrooms should be available. Therefore 23 class rooms should be available in the new building.

The following rooms of stated size are recommended for this building:

300 stations 2 @	4,100 sq. ft.	8200 sq. ft.
150 stations 2 @	2,050 sq. ft.	4100 sq. ft.
70 stations 4 @	945 sq. ft.	3780 sq. ft.
50 stations 7 @	675 sq. ft.	4725 sq. ft.
40 stations 8 @	540 sq. ft.	4320 sq. ft.

Total rooms 23 with 1850 stations

Note: Area of these rooms is based on an average of 13.5 sq. ft. per station.

III. Faculty Offices

A. Current faculty offices

1. Present building - 13

Note: Offices in rooms 130, 137, 138, 133 assumed to be non-functional as faculty offices as use of space within this building changes.

2. Huckins Building - 9

3. Library - 30 of 40 offices expected to be available as faculty offices.

4. Emergency offices in houses are not included since it is anticipated that the houses will have to be domolished to make way for future construction.

5. Total 52.

B. It may be hoped that by 1973 the student:faculty ratios could be reduced to no more than 20:1. With 4,800 students this would require a total of 240 faculty. This means that the new building must contain about 170 faculty offices. (At 120 sq. ft. per office these would require 21,000 sq. ft.)

Note: Twenty more offices will be available as part of the departmental offices.

C. Departmental offices

By 1973 departmentalization on the South Bend Campus may be expected to have proceeded to the place where there will be 22 such units on the campus. It is anticipated that each department will require an office. Each such office can be expected to include a central room for departmental secretaries and two connecting rooms, one a chairman's office the other a general purpose room or vice-chairman's offices. It is anticipated that renovation of space in the present building and the Huckins Building will provide space for two departmental offices. The remaining 20 will have to be housed in the new building. Recommended space requirements are as follows:

Central office	300 sq. ft.
Chairman's office	180 sq. ft.
General purpose room	150 sq. ft.
	630 sq. ft.

20 Departmental offices @ 630 sq. ft.	12,600 sq. ft.

V. Total square fee 141,925. This figure does not include any allowance for hall, general storage, toilets, etc.

Appendix A

Data is available on the comparative utilization of teaching facilities at a number of universities throughout the country.[1] Based on these data three statistics can be obtained which are of interest for our planning: Number of classrooms per 100 students, no. of stations per student, and sq. ft. per station. These are as follows:

	enrollment	classrooms/ 100 students	stations/ student	sq. ft./ station
Indiana U.	19,296	.897	.575	12.9
U. of Maryland	19,121	1.102	.72	15.9
U. of Calif. Berkeley	25,046	1.12	.697	12.4
U. of Calif. L.A.	19,139	1.3	.812	13.1
U. of Calif. Davis	8,306	.47	.355	11.5
U. of Calif. Riverside	2,165	1.615	.727	14.1
U. of Calif. Santa Barbara	4,805	1.46	.715	14.9

Data for no. of classrooms per 100 students was calculated as follows:

$$\text{classrooms/100 students} = \frac{\text{student contact hours per student x 100}}{\text{mean class size x mean room hours}}$$

Data for stations per student was calculated as follows:

$$\text{station/student} = \frac{\text{student contact hours per student}}{\text{mean station hours}}$$

Excluding the data for Davis where the program differs from other schools (better classrooms use, more lab use) the average value for station/student is about .73. For an enrollment of 4,800 students this suggests that about 3,500 classroom stations are needed.

The number of classrooms per 100 students tends to drop as enrollment increases. The data suggests that for an enrollment of 4,800 students about 1.5 classrooms are needed per 100 students. This equals 72 rooms.

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[1] Indiana University, University of Maryland and the University of California--5 campuses at Berkeley, Los Angeles, Davis, Riverside and Santa Barbara.