within any kind of dynamic structural change in the American society, there has never been a fully successful effort in eliminating temporary human distortion and frictions. MSU is deeply committed, along with a cooperative effort of education, government, j

Following discussion by several members of the Board of Trustees, Dr. Wharton stated that the evening would consist of a presentation on the activities of the Michigan State University Agricultural Experiment Station. Dr. Lawrence L. Boger, Dean of the MSU College of Agriculture and Natural Resources, made opening remarks concerning the importance of the Agricultural Experiment Station to the University, the state of Michigan, the nation, and the world.

Dr. Sylvan H. Wittwer, Director of the MSU Agricultural Experiment Station, began the presentation with an overview of the goals and accomplishments of the Experiment Station as well as some of the challenges which it faces in agricultural research. He indicated that the Experiment Station still has as its number-one research goal the efficient production of food and fiber. Another important concern is the whole area of land use in Michigan and the entire nation. He pointed out that another research goal is greater utilization of agricultural byproducts, industrial byproducts, municipal byproducts, and food processing byproducts. He stated that the Experiment Station is also concerned with integrated pest control and pest management in Michigan. He added that as we currently hear of the energy crisis in America, the Experiment Station is concerned in terms of reducing the energy requirements of modern agriculture. Dr. Wittwer mentioned that the Experiment Station is deeply concerned with finding ways that modern agriculture can live in harmony with the rest of society in terms of food production systems as well as environmental impact assessments. He concluded his overview by pointing out that the Experiment Station was deeply concerned with maintaining the integrity of the land-grant university system in America.

He then began a brief slide presentation on some of the problems facing American agriculture and what the Agricultural Experiment Station is doing to help find answers. He stressed the use of space-age technology in assessing environmental impact and land use. He also paid tribute to the research work conducted in cooperation with MSU which has resulted in a vaccine against Marek's disease in chickens. He indicated that this has been one of the most important agricultural developments in recent years. He added that the vaccine may well have application to research in the treatment of cancer in humans.

Dr. Wittwer discussed the production of corn in America, mentioning it as the number-one crop in the nation and a very important one in Michigan. The Agricultural Experiment Station has been concerned with the production of hybrid corn which can resist corn blight. MSU has also been involved in the development of corn high in protein which has an important impact in feeding swine. Dr. Wittwer indicated that high protein corn has great implications for corn diets in parts of the world where protein deficiency is quite common. He added that work is currently under way to develop a corn plant which is shorter, with vertical upright leaves, improved light receiving systems, and which can be planted in very high plant populations.

He also indicated that the Experiment Station is involved in developments and improvements in the wheat industry in Michigan with a special interest in wheat processing problems. MSU is deeply committed, along with a cooperative effort of education, government, industry, and agriculture, to the control of the cereal leaf beetle. He added that work is under way to develop a variety of Michigan winter wheat which is resistant to the cereal leaf beetle. Research is also under way in the area of biological controls.

Dr. Wittwer discussed MSU's research in Michigan's large apple industry which resulted in an important development of apple trees which produce fruit very early in life. He added that major research discoveries in Michigan and in the nation have occurred very rapidly; most of them during the current generation. He cited the important development of improved carrot production through the introduction of hybrid carrots developed at MSU. He added that the Agricultural Experiment Station has a long legacy in agricultural research and that this legacy has continued up to the current time with the major work going on at MSU in the area of pesticide research. He indicated that the pesticide research program is a good example of interdisciplinary support with three MSU colleges and some 35 academic departments working in the program. He also mentioned MSU's work in the development of pollution-resistant trees for use along highways and streets. He briefly reviewed the assistance the Experiment Station has given Michigan's cherry, picking cucumber, grape, potato, food processing, beef, dairy, and sheep industries.

Following discussion by several members of the Board of Trustees, Dr. Wharton stated that within any kind of dynamic structural change in the American society, there has never been a fully successful effort in eliminating temporary human distortion and frictions that occur in adjustments to technological change. He indicated that this is particularly true in respect to outward migratory pressures placed on agriculture as a whole, whether farmers or workers.
Activities of Agr. Exp.Sta., cont.

Dr. Wittwer concluded his presentation by noting that the salvation of the United States is going to depend on food production in the future and that there is a need to identify whatever might be considered prime agricultural land. He added that the question of land use in our society is really one of the most important issues facing us in the future. Dean Boger added that he sees MSU becoming heavily involved in the issue of land use from an educational role. He stated that the time is past due for Michigan to develop a comprehensive land use policy.

The Board of Trustees thanked Dr. Wittwer and Dean Boger for the presentation and President Wharton adjourned the Informal Meeting.

MINUTES OF THE INFORMAL MEETING
of the
MICHIGAN STATE UNIVERSITY
FINANCE COMMITTEE
March 15, 1973

President Wharton called the Finance Committee meeting to order at 7:33 a.m.

The following members were present: Trustees Carrigan, Huff, Martin, Herriman, Radcliffe, Stack, Stevens, and Thompson; President Wharton, Executive Vice President and Secretary Breslin, Vice Presidentes Wilkinson, Nonnamaker, and Scott, Provost Cantlon, Assistant to the President Ballard, Attorney Carr.

1. The Detroit Bank & Trust Co. has completed the following investment transactions for the appropriate Fee Trusts. This report was presented to the Board for information purposes only.

HARRY A. FEE TRUSTS

<table>
<thead>
<tr>
<th>Trust No. 20100</th>
<th>Now</th>
<th>Buy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold</td>
<td>600 shs Marshall Field &amp; Co. Inc. common</td>
<td>$50,000 $11,000 Corporate Bond Common Trust Fund No. 2</td>
</tr>
<tr>
<td></td>
<td>$19,800 $708</td>
<td>11,000 $758</td>
</tr>
<tr>
<td></td>
<td>$30,900 $1,436</td>
<td></td>
</tr>
<tr>
<td>Sell</td>
<td>1,600 shs American Tel. &amp; Tel. Corp. common</td>
<td>$31,200 $1,680</td>
</tr>
<tr>
<td>Trust No. 21169</td>
<td>Buy</td>
<td></td>
</tr>
<tr>
<td>1,000 shs Public Service Co. of Indiana common</td>
<td>$44,000 $2,240</td>
<td></td>
</tr>
<tr>
<td>1,000 shs Marshall Field &amp; Co., Inc. common</td>
<td>$3,000 $2,000</td>
<td></td>
</tr>
<tr>
<td>100 shs International Business Machines Corp. common</td>
<td>$43,400 $1,400</td>
<td></td>
</tr>
<tr>
<td>$167,000 $53,000 Corporate Bond common Trust Fund No. 2</td>
<td>$173,600 $7,560</td>
<td></td>
</tr>
<tr>
<td>$178,600 $64,770 $6,900</td>
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<td></td>
</tr>
</tbody>
</table>

JESSIE T. FEE TRUST

| Trust No. 22323 | Buy |
| 1,000 shs Walter E. Heller International common | $35,000 $800 |

Funds were generated from the sale of Commercial Paper on hand.

It was recommended that this report be accepted by the Board of Trustees.

Trustee Thompson's motion, seconded by Trustee Carrigan, to accept the Detroit Bank & Trust Co. report of Fee Trusts transactions was unanimously approved.
2. The following schedule projects general fund dollars which are available for allocation during the present fiscal year on a non-recurring basis:

**Revenue Projection**

<table>
<thead>
<tr>
<th>Description</th>
<th>Budget</th>
<th>Revised at 3-31-73</th>
<th>Difference</th>
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</thead>
<tbody>
<tr>
<td>Student Fees</td>
<td>$30,361,000</td>
<td>$30,568,000</td>
<td>$207,000</td>
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<tr>
<td>State Appropriations</td>
<td>70,839,000</td>
<td>70,839,000</td>
<td>0</td>
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<tr>
<td>Morrill-Nelson</td>
<td>200,000</td>
<td>-0</td>
<td>(200,000)</td>
</tr>
<tr>
<td>Other Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Fees</td>
<td>325,000</td>
<td>325,000</td>
<td>0</td>
</tr>
<tr>
<td>Departmental Receipts</td>
<td>1,200,000</td>
<td>1,170,000</td>
<td>(30,000)</td>
</tr>
<tr>
<td>Interest on Cash Investments</td>
<td>650,000</td>
<td>800,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Recovery on Research Contracts</td>
<td>3,050,000</td>
<td>568,000</td>
<td>68,000</td>
</tr>
<tr>
<td>Equity</td>
<td>500,000</td>
<td>568,000</td>
<td>68,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$107,125,000</strong></td>
<td><strong>$107,520,000</strong></td>
<td><strong>$395,000</strong></td>
</tr>
</tbody>
</table>

**Expenditure Savings Projection**

- Debt Service -- Osteopathic Medicine: $210,000
- Insurance: 50,000
- Unemployment Compensation: 175,000

*Amount available for allocation: $830,000*

It was recommended by Provost Canton and Vice President Wilkinson that the above funds be allocated for the following projects:

1. Physics Building - electrical system: $290,000
2. Food Science Department - alterations: 168,450
3. Library - book acquisitions, law journals: 100,000
4. Instructional Media - supplies and equipment: 48,000
5. Closed Circuit TV - Hookup to married housing: 18,250
6. Band uniforms: 50,000
7. WKAQ air conditioning (Auditorium): 50,000
8. Beal Gardens - improvements: 35,000
9. Grounds Department equipment: 22,000

*Total allocations: $781,700*

A. An additional $50,000 will be allocated from NSF funds for a total project cost of $340,000.

B. An additional $100,000 will be allocated from the former Dairy Plant Reserve balance for a total allocation of $268,450.

RESOLVED that the allocations as recommended be approved and authorization be granted to engage Warren Holmes Co., architects, following fees established by the State, as consultants in the alterations in the Food Science Department.

Unanimously approved. Motion by Trustee Thompson, seconded by Trustee Carrigan.

3. a. The following gifts of stock which were submitted for acceptance at the January Board meeting have been sold:

Gifts from Mr. Henry L. Caulkins for the Caulkins Foundation Scholarships:

- 7 shares of American Telephone & Telegraph stock were sold on December 12, 1972 for a net amount of $345.22
- 214 shares of The Detroit Edison Co. stock were sold on December 12, 1972 for a net amount of $4,535.59

b. The following gifts of stock which were submitted for acceptance at the February Board meeting have been sold:

- 6 shares of Clorox Company stock, a gift from Mr. and Mrs. Thomas Notaraini for the MSU Development Fund-Unrestricted, were sold on January 17, 1973 for a net amount of $288.65
- 7 shares of Dow Chemical Co. stock, a gift from Mr. and Mrs. R. W. Caldwell for the Richard W. Caldwell Chemical Engineering Fund, were sold on January 24, 1973 for a net amount of $677.07

RESOLVED that the report of the sale of the above stocks be accepted.

Unanimously approved. Motion by Trustee Carrigan, seconded by Trustee Thompson.
President Wharton and Vice President Scott recommended the employment of Brakeley, John Price Jones Inc., 6 East 43rd Street, New York, as fund raising consultants for the University. The depth of the study, time schedule, and cost are contained in Mr. Brakeley's letter to Mr. Scott under date of November 21, 1972, which is on file in the Secretary's Office.

RESOLVED that Brakeley, John Price Jones Inc. be employed as fund raising consultants for the University, as recommended.

Trustee Thompson's motion, seconded by Trustee Radcliffe, to approve the above resolution was approved by a vote of 7 to 1, Trustee Huff voting "No."

President Wharton reviewed the University salary increase requests, the Governor's recommendations, the legislative appropriations, and the actual University allocations over the past several years and requested from the Trustees preliminary guidelines for arriving at salary allocations for 1973-74. This year the University has asked for 10% and the Governor has recommended 4.4%. With the exception of the Fraternal Order of Police contract, which calls for a 6% increase in the second year of a two-year contract, all labor contracts will be up for negotiation this year. Based upon labor settlements elsewhere, it now appears that labor will demand a minimum increase from 8.5% to 11%. The faculty are concerned about (1) the erosion in their purchasing power as the result of their low salary increase last year, and (2) their relative position vis-a-vis State employees at the present time. If the legislative appropriations follow the Governor's recommendation and if salary increases higher than the recommended 4.4% are to be awarded by the University, the administration will have to determine where savings are to occur, that reallocations of resources are to be made, if programs are to be phased out, and whether or not student fees should be increased.

Trustee Carrigan responded that at the January retreat a general Board consensus had been expressed as to the essential efforts that would be required to maintain and encourage the maintenance of a high quality faculty. She also remarked that MSU faculty salaries do not compare favorably with those of K-12 education, Big Ten, or other institutions. She personally would like to have serious thought given to internal departmental accountability.

Trustee Stevens stated that it has been his feeling for some time that the University should not so rigidly adhere to the percentage increase since this aggravates the inequities that exist.

Trustee Merriman remarked that his impression from this discussion was that it would be detrimental to continue to take money for salary increases from supplies and services budgets, and therefore it would be necessary to make very significant program cuts.

President Wharton advised the Trustees that through management effectiveness on the part of Provost Canton and Vice President Wilkinson, an amazing job had been done of keeping up without large incursions in terms of program, but if inequities are to be eliminated, faculty morale is to be maintained and we are to remain competitive, and if we are to carry out negotiations with the labor groups, difficult program decisions would have to be made. Trustee Thompson remarked that he felt this would be good, sound management.

Trustee Stack questioned whether money for a law school would affect salary levels of present faculty. President Wharton replied that he felt that funds provided for the College of Law would not in its absence be available for salary increases. Also, the University has insisted that new programs be fully funded by the legislature so that internal funds do not have to be used. As to the broader question of whether phasing out some programs while adding a new one represents managerial responsibility, President Wharton stated it was his feeling that the University must respond to changing educational needs.

Trustee Stack asked if the administration was taking a comprehensive look at what should be cut back. Provost Canton pointed out that two things to keep in mind in cut-backs are the number of places that can be cut back without a loss in enrollment, and the contractual obligations, including obligation to students. While economies can be effected, it must be by a phasing process.

Trustee Martin asked if it was the feeling that the deficits would be made up without a tuition increase this year, and President Wharton responded that the administration would look at the overall picture in terms of salaries, inflation, etc., and if there is still a deficit, an increase in fees may be recommended but it is impossible to determine at this point.

President Wharton also mentioned that there will be major cut-backs in Federal funds under President Nixon's budget recommendations. The University will also have an additional expense under a new ruling which provides, under certain conditions, for unemployment compensation for retirees.
Finance Committee Minutes, continued

March 16, 1973

6. Vice President Wilkinson gave the Trustees background information on a University-owned building located on Main Street in Wayne, Michigan which for the past 25 years has been rented to the Michigan Bell Telephone Co. The closing of Main Street to through traffic and the finishing of an adjoining office building (surrounded by parking) has resulted in the University building being virtually landlocked with only 18 to 20 parking spaces. Trustee authorization was requested to pursue the possibilities of re-leaseing or selling this building.

Motion was made by Trustee Huff, seconded by Trustee Thompson to grant the requested authorization. Unanimously carried.

7. Progress Reports by President Wharton and Other Executive Officers

a. President Wharton reported that the East Lansing City Council had requested that their meeting with the Trustees, which had been scheduled in conjunction with the April Board meeting, be changed to Thursday evening, May 24. Several of the Trustees wondered if an annual meeting rather than semi-annual meetings with the East Lansing City Council would be sufficient to discuss items of mutual concern.

b. The President also announced that tentative plans have been made to present the 1973 Distinguished Citizen Awards at the luncheon following the May 25 Board meeting.

c. The date for the spring term retreat was discussed and May 12 seemed to be the most satisfactory date for all of the Trustees.

d. President Wharton announced that an anonymous donor had offered a $5,000 reward for information leading to the arrest and conviction of the person or persons responsible for the death of Martin Victor Brown on March 11.

On motion by Trustee Thompson, seconded by all of the Trustees, it was unanimously voted to authorize the President to make a statement at the open Board meeting regarding this death. (See page 7726)

e. Vice President Wilkinson introduced Mr. T. B. Simon, Director, and Mr. Howard Wilson, Associate Director of the Physical Plant Division, who recommended that because of the state of flux in the fuel situation, and until the State has had an opportunity to determine who will burn gas, oil or coal, a decision of the "add" alternate bids for the remaining areas of work on Power Plant 65 - Unit 3, be delayed. (Bids will be found on page 7740.)

Meeting adjourned at 9:50 a.m.

MINUTES OF THE EXECUTIVE SESSION
of the
MICHIGAN STATE UNIVERSITY
BOARD OF TRUSTEES
March 16, 1973

The Trustees met in Executive Session immediately following the Finance Committee meeting.

Present: Trustees Carrigan, Huff, Martin, Merriman, Radcliffe, Stack, Stevens, and Thompson; President Wharton, Executive Vice President and Secretary Breslin, Attorney Carr.

Absent: No one.

1. President Wharton called upon Executive Vice President Breslin for a progress report on the claim of Charles W. Bachman, former head football coach, for payment of special retirement benefits. Mr. Bachman insists that at the time of his resignation, effective January 1, 1947, he was to be paid the sum of $3,000 per year. The records disclose that no retirement was paid to Mr. Bachman until December 1, 1954, when benefits were begun at the rate of $2,000 per year. On July 1, 1964, the rate was increased to $3,000 per year. President Hannah discussed Mr. Bachman's claims with the Board of Trustees, and it was finally agreed that, if some arrangement could be worked out that permitted Mr. Bachman to render himself useful as an alumni representative and fund-raiser, the sum of $30,000 would be paid to him, at the rate of $5,000 per year for a six-year period of time. Mr. Bachman evidenced, in writing, his agreement with the proposed resolution of the situation. At this time the final installment of $5,000 is due, and it was recommended that before such payment is made Mr. Bachman should sign a release of any and all liability to him over and above his normal noncontributory retirement benefits.

It was moved by Trustee Merriman, seconded by Trustee Thompson, to approve the arrangements and authorize final payment upon execution of the recommended release. Approved unanimously.

Adjourned.
MINUTES OF THE MEETING
of the
MICHIGAN STATE UNIVERSITY
BOARD OF TRUSTEES
March 16, 1973

Present: Trustees Carrigan, Huff, Martin, Merriman, Radcliffe, Stack, Stevens, and Thompson; President Wharton, Executive Vice President and Secretary Breslin, Vice President Wilkinson, Provost Cantlon, Vice Presidents Mueller, Nonnamaker, Perrin, and Scott, Assistant to the President Ballard, Attorney Carr.

Absent: No one.

The Board convened in the Board Room at 10:25 a.m., President Wharton presiding.

1. Motion was made by Trustee Merriman, seconded by Trustee Thompson, to adopt the agenda. Unanimously carried.

2. On motion by Trustee Martin, seconded by Trustee Carrigan, it was unanimously voted to accept the minutes of the Finance Committee meeting.

3. Motion was made by Trustee Carrigan, seconded by Trustee Thompson, to approve the minutes of the February 16, 1973 meeting of the Board. Unanimously carried.

President Wharton announced that the Trustees had requested him to make the following statement on their behalf.

The Board of Trustees joins with the entire Michigan State University community in the expression of deep sorrow over the tragic death on the campus of a University student, Martin Victor Brown. The Trustees, individually and as a Board extend their heartfelt sympathy to Martin's family.

As an expression of their sympathy the Board of Trustees has established the Martin Victor Brown Scholarship Fund in the College of Agriculture and Natural Resources.

President Wharton also announced that an anonymous donor had offered a $5,000 reward for information leading to the arrest and conviction of the person or persons responsible for the death of Martin Victor Brown.

A. PERSONNEL CHANGES


2. Lorraine T. Furtado, Instructor, Secondary Education and Curriculum, effective August 31, 1973 to accept a position at California State College, Bakersfield, California.

3. Bettye L. Jennings, Assistant Professor, Mott Institute for Community Improvement, effective April 30, 1973 to accept another position.

4. Lynne C. Appleford, Instructor, Pharmacology, effective March 15, 1973 to become a postdoctoral fellow.

5. Richard Leavitt, Research Associate, Entomology, effective January 31, 1973 to transfer to a specialist position in Entomology.

6. Peter Brockwell, Associate Professor, Statistics and Probability, effective August 31, 1973 to accept chair of probability and statistics at Latrobe University in Melbourne, Australia.

7. Russell W. Allen, Professor and Associate Director, Labor and Industrial Relations, effective August 31, 1973.


Sabbatical Leaves


2. Anthony DeBlasi, Associate Professor, Art, with half pay, effective September 1, 1973 through August 31, 1974 to study in Europe.
Leaves—Sabbatical, continued

5. William B. Hixson, Jr., Associate Professor, History, with half pay, effective September 1, 1973 through August 31, 1974 to study in the United States.

6. Oscar I. Tosi, Professor, Audiology and Speech Sciences, with full pay, effective April 1, 1973 through June 30, 1973 to study in Italy and France.

7. Andrew D. Hunt, Professor and Dean, College of Human Medicine, with full pay, effective April 5, 1973 through July 4, 1973 to study in Spain, France, West Germany, The Netherlands, Denmark, Sweden, and Great Britain.

8. Roger C. Stimson, Jr., Associate Professor, Justin Morrill College, with full pay, effective April 1, 1973 through June 30, 1973 to study in East Lansing and New York City.

9. Donald G. Farnum, Professor, Chemistry, with half pay, effective September 1, 1973 through August 31, 1974 to study at the University of California at San Diego.

10. Alexander Tulinsky, Professor, Chemistry, and Biochemistry, with half pay, effective January 1, 1974 through June 30, 1974 to study and travel in Spain, France, West Germany, The Netherlands, Denmark, Sweden, and Great Britain.

11. William B. Hixson, Jr., Associate Professor, History, with half pay, effective September 1, 1973 through August 31, 1974 to study in the United States.

12. Oscar I. Tosi, Professor, Audiology and Speech Sciences, with full pay, effective April 1, 1973 through June 30, 1973 to study in Italy and France.

13. Andrew D. Hunt, Professor and Dean, College of Human Medicine, with full pay, effective April 5, 1973 through July 4, 1973 to study in Spain, France, West Germany, The Netherlands, Denmark, Sweden, and Great Britain.

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18. Oscar I. Tosi, Professor, Audiology and Speech Sciences, with full pay, effective April 1, 1973 through June 30, 1973 to study in Italy and France.

Leaves—Health


Leaves—Military


Leaves—Other

1. Frances Kay Hollers, Assistant Professor, Nursing, without pay, effective February 1, 1973 through April 20, 1973 due to family illness.

2. Nancy L. Bonvillain, Associate Professor, Anthropology, without pay, effective September 1, 1973 through August 31, 1974 to conduct research at American Council of Learned Societies, New York, New York.
A. PERSONNEL CHANGES, continued

March 16, 1973

Transfers and Changes in Assignment

Mary L. Szydlik

1. Change Mary L. Szydlik, Extension Home Economist, Macomb County, from 100% time at a salary of $10,400 per year to 50% time at a salary of $5,200 per year on a 12-month basis, effective April 23, 1973 through June 8, 1973.

Daniel A. Bronstein


Joan V. Smith

3. Cancellation of leave, no pay, effective September 1, 1973 through December 31, 1973 for Joan V. Smith, Associate Professor, Department of Art.

Donald J. Bowersox

4. For Donald J. Bowersox, Professor, Marketing and Transportation Administration:
   b. Change from 100% time at a salary of $23,800 per year to 50% time at a salary of $11,900 per year on a 10-month basis, effective May 1, 1973 through August 31, 1973.

Patricia S. Walsh

5. For Patricia S. Walsh, Assistant Professor, Audiology and Speech Sciences:
   a. Change from a 10-month basis at a salary of $12,600 per year to a 12-month basis at a salary of $15,750 per year, effective January 1, 1973;
   b. Additional assignment as Assistant Dean, College of Communication Arts, with an increase in salary to $16,750 per year on a 12-month basis, effective February 1, 1973.

Lawrence E. Sarbaugh

6. Change of assignment for Lawrence E. Sarbaugh from Associate Professor, Department of Communication and Assistant Dean, College of Communication Arts, to Associate Professor, Department of Communication, and Assistant Dean for Continuing Education, College of Communication Arts and Continuing Education, effective February 1, 1973.

Gordon L. Thomas

7. Change of assignment for Gordon L. Thomas from Professor, Department of Communication, and Associate Dean for Continuing Education, College of Communication Arts and Continuing Education, to Professor, Department of Communication, and Secretary of the Faculties, Provost’s Office, effective February 1, 1973.

Thomas W. Culpepper


Ann C. Slocum

9. Change Ann C. Slocum, Instructor, from assignment to Human Environment and Design and Family Ecology, to assignment to Family Ecology only, and a change from 100% time at a salary of $11,600 per year to 50% time at a salary of $5,800 per year on a 10-month basis, effective March 1, 1973 through June 30, 1973.

Donald Weston

10. Change of assignment for Donald Weston, Associate Professor, Human Development and Psychiatry, and Associate Dean, College of Human Medicine, to Associate Professor, Human Development and Psychiatry, and Acting Dean, College of Human Medicine, with an increase in salary to $37,400 per year on a 12-month basis, effective April 1, 1973 through June 30, 1973.

William B. Weil

11. Additional assignment as Acting Associate Dean, College of Human Medicine, effective April 1, 1973 through June 30, 1973 for William B. Weil, Professor and Chairman, Department of Human Development.

James M. Youssling

12. Change James M. Youssling, Instructor, Justin Morrill College, from 50% time at a salary of $4,400 per year to 70% time at a salary of $6,160 per year on a 10-month basis, effective May 1, 1973 through August 31, 1973.

Kou-chang Liu


Lawrence Pelavin


Dilip K. Sen Sharma


James E. Bath

16. Designation of James E. Bath, Associate Professor, as Acting Chairman, Department of Entomology, with an increase in salary to $20,650 per year on a 12-month basis, effective March 1, 1973 through August 31, 1973.

Richard O. Hill

17. Reappointment of Richard O. Hill as Assistant Professor, with tenure, effective September 1, 1973.

Anthony J. Malcolm

18. Change Anthony J. Malcolm, Clinical Assistant Professor, Osteopathic Medicine, from 3% time at a salary of $600 to 1.5% time at a salary of $300 for the period September 1, 1972 through June 30, 1973.

Charles Morrison

19. Change Charles Morrison, Associate Professor, Anthropology, from a temporary to a regular appointment subject to tenure rules, effective March 1, 1973.
A. PERSONNEL CHANGES, continued

Transfers and Changes in Assignment, continued

20. Additional assignment for Stanley D. Brunn, Associate Professor, Geography and Computer Institute for Social Science Research, as Acting Director of the Computer Institute for Social Science Research, with an increase in salary to $16,300 per year on a 10-month basis, effective March 16, 1973 through June 15, 1973.


22. Change Ethel Campbell, Instructor, American Thought and Language, from 66-2/3% time at a salary of $4,627 per year to 100% time at a salary of $6,940 per year on a 10-month basis, effective May 1, 1973 through August 31, 1973.

23. Change Wade O. Brinker, Professor, Small Animal Surgery and Medicine, from a 12-month basis at a salary of $28,100 per year to a 10-month basis at a salary of $22,480 per year, effective September 1, 1973.

24. Payment of $4,000 plus retirement pay for the period February 1, 1973 through June 30, 1973 for Frank D. Day, Professor Emeritus, Institute for Community Development.

25. Assignment of John R. Brake, Professor, Agricultural Economics, to Overseas-San Jose, Costa Rica, Ecuador, effective March 5, 1973 through March 18, 1973.


30. Change Wilbur B. Brookover from Professor, Education and Sociology, and Associate Director, Center for Urban Affairs, to Professor, Education and Sociology, and Professor and Acting Chairman, Urban and Metropolitan Studies, effective March 1, 1973.


Promotions

1. Change in title for George P. Steinmetz from Assistant Professor to Associate Professor, German and Russian, with an increase in salary to $12,000 per year on a 10-month basis, effective March 1, 1973.

2. Change in title for Mary R. Josephs from Instructor to Assistant Professor, Justin Morrill College, effective February 8, 1973.

Salary Changes

1. Change in salary for Richard Kushner, Clinical Assistant Professor, Osteopathic Medicine, from no pay to $500 for the period February 1, 1973 through June 30, 1973.

2. Increase in salary for Ian M. Matley, Professor, Geography, to $24,500 per year on a 10-month basis, effective April 1, 1973.

3. Increase in salary for Martha J. Soltow, Librarian, Labor and Industrial Relations, to $13,350 per year on a 12-month basis, effective July 1, 1972.

Appointments

1. Juan Mariner, Program Leader, Special Programs, Cooperative Extension Service, at a salary of $10,500 per year on a 12-month basis, effective March 26, 1973.

2. John Frank Lopez, Extension Assistant, 4-H Youth Programs, at a salary of $9,000 per year on a 12-month basis, effective April 1, 1973.

3. Edith Aliene Mills, Extension Home Economist, Tuscola, Sanilac, and Huron Counties, at a salary of $11,000 per year on a 12-month basis, effective April 1, 1973.

4. Mary Stoutman Patrick, Specialist, Agricultural Economics, at a salary of $8,000 per year on a 12-month basis, effective March 15, 1973 through March 14, 1974.
A. PERSONNEL CHANGES, continued

March 16, 1973

Appointments, continued

5. Lloyd D. Teigen, Research Associate, Agricultural Economics assigned to Overseas-Korea at a salary of $12,100 per year on a 12-month basis, effective January 1, 1973 through December 31, 1973.

6. Yuan-Tseng Pan, Research Associate, Biochemistry, at a salary of $7,500 per year on a 12-month basis, effective April 1, 1973 through June 30, 1973.

7. Edward Wayne Smith, Research Associate, Biochemistry, at a salary of $9,000 per year on a 12-month basis, effective March 1, 1973 through June 30, 1973.


9. Linda Lou Shearman, Instructor, Crop and Soil Sciences, 50% time, at a salary of $5,100 per year on a 12-month basis, effective April 1, 1973 through September 30, 1973.


11. Rodney L. Malkin, Instructor, Art, and Dean's Office, College of Arts and Letters, 50% time, at a salary of $2,100 for the period April 1, 1973 through June 30, 1973.

12. Nancy A. Johnson, Assistant Professor, English, at a salary of $11,400 per year on a 10-month basis, effective September 1, 1973.

13. Larry N. Landrum, Assistant Professor, English, at a salary of $11,400 per year on a 10-month basis, effective September 1, 1973.

14. Timothy Harold Little, Assistant Professor, Elementary and Special Education, at a salary of $13,000 per year on a 10-month basis, effective September 1, 1973.


20. Robert Gee, Research Associate, Biochemistry, at a salary of $11,000 per year on a 12-month basis, effective February 1, 1973 through January 31, 1974.

21. Everett W. Durham, Associate Clinical Professor, Medicine, variable time, without pay, on a 12-month basis, effective October 1, 1972 through June 30, 1973.

22. Clyde Y. Wu, Associate Clinical Professor, Medicine, variable time, without pay, on a 12-month basis, effective October 1, 1972 through June 30, 1973.

23. Lynne Christine Weaver, Postdoctoral Fellow, Pharmacology, at a salary of $7,500 per year on a 12-month basis, effective March 16, 1973 through July 31, 1973.

24. Richard Santos, Specialist, Health Services Education and Research, at a salary of $15,000 per year on a 12-month basis, effective February 12, 1973 through August 14, 1973.

25. Richard W. Wagner, Postdoctoral Fellow, Biophysics, at a salary of $9,000 per year on a 12-month basis, effective February 1, 1973 through December 31, 1973.


27. Bobby L. Barnett, Specialist, Chemistry, at a salary of $9,500 per year on a 12-month basis, effective February 26, 1973 through February 28, 1974.

28. Robert A. Creswell, Research Associate, Chemistry, at a salary of $8,000 per year on a 12-month basis, effective March 1, 1973 through October 31, 1973.

A. PERSONNEL CHANGES, continued

March 16, 1973

Appointments, continued

30. William T. Suggs, Research Associate, Chemistry, 50% time, at a salary of $350 per month on a 12-month basis, effective February 1, 1973 through April 30, 1973.

31. Ray A. Warner, Assistant Professor, Chemistry, at a salary of $12,600 per year on a 12-month basis, effective March 1, 1973 through February 28, 1974.

32. Richard A. Leavitt, Specialist, Entomology, at a salary of $14,500 per year on a 12-month basis, effective February 1, 1973.

33. Arthur L. Wells, Specialist, Entomology, at a salary of $14,500 per year on a 12-month basis, effective February 1, 1973.

34. Hermann Nann, Research Associate, Cyclotron, 40% time, at a salary of $400 per month on a 12-month basis, effective January 15, 1973 through January 15, 1974.


39. Fred C. Tinning, Associate Professor, Community Medicine; Director of Office of Staff Resources, Dean's Office, College of Osteopathic Medicine, at a salary of $24,500 per year on a 12-month basis, effective February 1, 1973 through June 30, 1973.

40. Harry J. DeWore, Clinical Assistant Professor, Family Medicine, variable time, without pay, on a 12-month basis, effective March 1, 1973 through February 28, 1974.

41. Edward A. Fritch, Clinical Assistant Professor, Family Medicine, variable time, without pay, on a 12-month basis, effective March 1, 1973 through February 28, 1974.

42. Robert C. Hazzard, Clinical Assistant Professor, Family Medicine, variable time, without pay, on a 12-month basis, effective March 1, 1973 through February 28, 1974.

43. Calvin U. Price, Clinical Assistant Professor, Family Medicine, variable time, without pay, on a 12-month basis, effective March 1, 1973 through February 28, 1974.

44. Leonard J. Carrnright, Clinical Assistant Professor, Osteopathic Medicine, 4% time, at a salary of $700 for the period January 1, 1973 through June 30, 1973.

45. Phillip G. Cramer, Clinical Assistant Professor, Osteopathic Medicine, 4% time, at a salary of $700 for the period January 1, 1973 through June 30, 1973.

46. Mayer L. Horensten, Clinical Assistant Professor, Osteopathic Medicine, 2% time, at a salary of $300 for the period February 1, 1973 through June 30, 1973.

47. Felix Liddell, Clinical Assistant Professor, Osteopathic Medicine, 4% time, at a salary of $700 for the period January 1, 1973 through June 30, 1973.

48. Bernhard Muller, Clinical Assistant Professor, Osteopathic Medicine, 4% time, at a salary of $700 for the period January 1, 1973 through June 30, 1973.

49. W. Paul Reagan, Clinical Assistant Professor, Osteopathic Medicine, 4% time, at a salary of $700 for the period January 1, 1973 through June 30, 1973.

50. Randolphe Glenn Roulier, Clinical Assistant Professor, Osteopathic Medicine, variable time, without pay, on a 12-month basis, effective January 1, 1973 through June 30, 1973.

51. Joseph H. Wyatt, Clinical Assistant Professor, Osteopathic Medicine, variable time, without pay, on a 12-month basis, effective January 1, 1973 through June 30, 1973.


53. Edward J. Recchis, Assistant Professor, American Thought and Language, at a salary of $11,600 per year on a 10-month basis, effective September 1, 1973.

A. PERSONNEL CHANGES, continued

March 16, 1973

Appointments, continued


On motion by Trustee Stack, seconded by Trustee Carrigan, it was unanimously voted to approve the Resignations, Leaves, Transfers and Changes in Assignment, Promotions, Salary Changes, and Appointments.

Recommendations from the Director of Personnel

1. Establish 2 4-H Youth Program Assistant positions for Extension 4-H Youth Agents.
2. Establish a Senior Clerk Stenographer V position for the Department of Fisheries and Wildlife.
3. Reclassify a Clerk-Typist II to a Departmental Secretary V position for the Department of Communication.
4. Reclassify a half-time Clerk-Typist II to a full-time Senior Clerk Steno V position for the Department of Food Science and Human Nutrition.
5. For the Department of Microbiology and Public Health:
   a. Reclassify a Microbiologist from an VIII to a IX position
   b. Reclassify a Senior Clerk Steno V to a Principal Clerk VI position
6. Establish an Office Assistant VII position for the Department of Botany and Plant Pathology.
7. Reclassify a Senior Clerk IV to a Departmental Secretary V position for the Department of Mathematics.
8. Reclassify a Research Technician from a VII to an VIII position
9. Establish a Medical Technologist, Principal IX position for the Center for Laboratory Animal Resources.
10. Establish a Coordinator, Rehabilitation and Athletic Training AP-V position for Intercollegiate Athletics.
11. Reclassify a Senior Departmental Secretary VII to an Office Assistant VIII position for the Physical Plant Division.
12. Reclassify a Senior Clerk Typist V position for Alumni Relations and MSU Development Fund.

Retirements

1. Retirement, under TIAA-CREF only, of Munns A. Caldwell, Extension Horticultural Agent, Cooperative Extension Service, effective June 1, 1973. Mr. Caldwell was born July 3, 1909 and has been a member of the staff since May 1, 1958.
2. One-year consultanship with agreed-upon duties and responsibilities for Robert L. Carolus, Professor, Department of Horticulture, from October 1, 1973 to September 30, 1974, and retirement as Professor Emeritus effective October 1, 1974. The basic retirement salary will be $3,600 a year. Professor Carolus was born February 26, 1907 and has been a member of the faculty since September 15, 1945.
3. Retirement of Mary K. Cross, Senior Departmental Secretary, Department of Psychology, effective July 1, 1973 at a basic retirement salary of $2,891 a year. Mrs. Cross was born April 1, 1909 and has been employed by the University since June 1, 1955.
4. Retirement of Kenneth L. Deitzen, Painter, Physical Plant, effective March 1, 1973 on the basis of 25 or more years of service to the University. The basic retirement salary will be $2,550 per year. Mr. Deitzen was born January 19, 1921 and has been employed by the University since September 17, 1947.
5. One-year consultanship with agreed-upon duties and responsibilities for Beryl H. Dickinson, Professor, Department of Physics, from July 1, 1973 to June 30, 1974, and retirement as Professor Emeritus effective July 1, 1974. The basic retirement salary will be $3,564 a year. Professor Dickinson was born May 29, 1906 and has been a member of the faculty since September 1, 1946.
6. One-year consultanship with agreed-upon duties and responsibilities for Willa Norris, Professor, Department of Counseling, Personnel Services, and Educational Psychology, from July 1, 1973 to June 30, 1974, and retirement as Professor Emeritus effective July 1, 1974. The basic retirement salary will be $3,600 a year. Professor Norris was born July 14, 1911 and has been a member of the faculty since October 1, 1952.
7. Retirement of Frances Osborne, Custodian, Physical Plant, effective June 1, 1973 at a basic retirement salary of $3,054 a year. Mrs. Osborne was born July 14, 1908 and has been employed by the University since December 7, 1940.
8. Retirement of Beulah E. Pollard, Custodian, Physical Plant, effective June 1, 1973 at a basic retirement salary of $2,054 a year. Mrs. Pollard was born May 25, 1910 and has been employed by the University since November 15, 1955.
A. PERSONNEL CHANGES, continued

Retirements, continued

9. One-year consultantship with agreed-upon duties and responsibilities for E. Paul Reineke, Professor, Department of Physiology, from July 1, 1973 to June 30, 1974, and retirement as Professor Emeritus effective July 1, 1974. The basic retirement salary will be $3,600 a year. Professor Reineke was born January 5, 1909 and has been a member of the faculty since August 1, 1945.

On motion by Trustee Merriman, seconded by Trustee Thompson, it was unanimously voted to approve the Retirements.

Deaths

1. Report of the death of Agnes Sever on March 3, 1973. Mrs. Sever was born April 4, 1883, was employed by the University on December 6, 1918, and was a Maid in the Foods and Nutrition Lab. at the time of her retirement March 1, 1944.

2. Report of the death of Robert Trojanek, Assistant Land Planner, Campus Park and Planning, on March 9, 1973. Mr. Trojanek was born September 12, 1924 and had been employed by the University since January 1, 1957.

B. GIFTS AND GRANTS

1. Gift of 208 pieces of white steel insulated siding with a total value of $3,125.70 from the Dow Chemical Co., Midland, to be used under the direction of R. L. Maddex in Agricultural Engineering and Prodal Husbundy for construction of a new building at the Lake City Experiment Station.

2. Gift of approximately 27,000 curies Cobalt 60 in the form Brookhaven Mark I doubly encapsulated strips valued at approximately $16,000 from the Gamma Process Company, Inc., Ballston Spa, New York, to be used under the direction of G. A. Leveille in Food Science and Human Nutrition to upgrade existing Cobalt 60 gamma source.

3. Gift of a Ciosek-Patterson dynamic impact tester valued at $3,000 from E. I. duPont de Nemours & Co., Inc., Wilmington, Delaware for educational use under the direction of James W. Goff in the School of Packaging.

4. Gift of motors, drills, and other equipment with a total value of $1,089.40 from the Office of Naval Research, ONR Resident Representative, Ann Arbor, to be used under the direction of George Leroi for research in the Department of Chemistry.

5. Gift of miscellaneous equipment including pipe, fittings, electron tubes, printer, and Polaroid camera with a total value of $29,664.59 from the National Science Foundation to be used for research under the direction of R. U. Byerrum in the Department of Chemistry.

6. Gift of a power supply valued at $1,500 from the National Science Foundation to be used for research under the direction of Stanley R. Crouch in the Department of Chemistry.

7. Gift of miscellaneous equipment and supplies including a heater control systems rack with control, vacuum pump, and power supply with a total value of $23,719.64 from the National Science Foundation to be used for research under the direction of Richard Miller in the Department of Chemistry.

8. Gift of equipment including a control-indicator, mode pitch, circuit card assembly, and a printing wiring board with a total value of $29,345.11 from the National Science Foundation to be used for research under the direction of Leonard Cohen in the Department of Osteopathic Medicine.

9. Gift of miscellaneous equipment and supplies including an areograph, waterbath, microelectrode, and microtonometer with a total value of $23,875.24 from Pennsylvania State University, Department of Biology, to be used under the direction of Rodney Houlihan in the Department of Osteopathic Medicine.

10. Grants to be used for scholarship purposes as follows:
   a. $750 from the Michigan Milk Producers Association, Detroit, for recipients to be selected by the Ag. Techn. Office
   b. For scholarships for students in the Department of Horticulture: $500 from Federated Garden Clubs of Michigan - Lansing branch and $1,000 from Foundation of Federated Garden Clubs of Michigan, Detroit
   c. $1,000 from Mrs. Thelma O. Erickson, Lansing, to be invested and interest used, at discretion of chairman of Department of Music, as a scholarship or loan for a Michigan junior or senior woman student majoring in music.
   d. $700 from the Hard Corps Scholarship Fund, Seattle, Washington, for students who are specifically interested in hotel management rather than restaurant, food service and college feeding.
   e. $1,000 from Victoria Station Inc., San Francisco, California, to be awarded, if possible, to a football player enrolled in Hotel, Restaurant and Institutional Management.
10. Grants for scholarship purposes, continued
   f. $250 from Food Executives Club, Boca Raton, Florida, to establish a scholarship
      fund from which a donation will be made annually to the MSU food scholarship fund.
   g. $500 from the Central Michigan Lapidary and Mineral Society, Grand Ledge, for
      a recipient to be chosen by the chairman of the Department of Geology.
   h. $25 from Ann N. Cooper, Grand Rapids, for a part-time woman graduate student.
   i. For the Latin American Research Fund:
      $20 from C. W. Minkel, East Lansing
      $10 from Robert N. Thomas, East Lansing
   j. $50 from the Church of the Mediator Guild, Lakeside, as a contribution to the
      North American Indian Scholarship Fund.

11. Grants as follows to the MSU Development Fund:
   a. $1,000 from an anonymous donor to be deposited in a newly established account
      to be used at the discretion of the chairman of the Department of Art.
   b. $40.83 from Margaret Barbour Humer, Pittsburgh, Pennsylvania, for the J. Murray
      Barbour Music Scholarship Fund.
   c. $750 from the MSU Alumni Club of Mid Michigan for MSU Band Music Royalties.
   d. $250 from Hi Fi Buys of Lansing, East Lansing, for the International Music Festival.
   e. $25 from Richard W. Buschmann, East Lansing, for the Department of Accounting and
      Financial Administration.
   f. For the College of Human Medicine Emergency Student Loan Fund:
      $250 from Mr. and Mrs. Albert Aalbers, Grand Rapids
      $50 from Susan Harold, Chicago
      $330 from various donors
   g. $197 from various donors for research in leukemia in the Department of Medicine.
   h. $500 as a matching gift from the Whirlpool Foundation for a fellowship in Urban
      Planning.
   i. $200 from Mr. and Mrs. Leonard J. Luker, East Lansing; $50 to Special Research
      Projects in Institutional Research and $150 to the Leonard J. Luker Loan Fund
      account.
   j. $100 from Mr. and Mrs. William Pratt, Jr., East Lansing, for research projects
      in the Office of Institutional Research.
   k. $400 from Michael G. Marshall, East Lansing, to be deposited in the Baseball
      account.
   l. $50 from Clare W. Hendee, Chevy Chase, Maryland; $10 for the Karl Dressel Memorial
      Fund, $10 for the Terrill D. Stevens Memorial Fund, $30 for the Forest Strong
      Memorial Fund.
   m. $40.42 from the Michigan State Horticultural Society, Britton, for the A. E.
      Mitchell Travel Fund account.
   n. $25 as a matching gift from Kimberly Clark Corporation for the Julie Klemkosky
      Memorial Fund.
   o. For the CCIP Scholarship Fund:
      $60 from the Ingham County Bar Auxiliary, Lansing
      $25 from Chapter BB, PEO Sisterhood, East Lansing
   p. $100 as a matching gift from the Dow Corning Corp. for awards to students.

12. Grant of $2,333.34 from County of Clinton, Commissioners, St. Johns, Michigan, to be
    used under the direction of G. S. McIntyre in the Cooperative Extension Service to
    cover part of the salary of an additional area 4-H Youth Agent, serving the Tri-County
    areas of Clinton, Gratiot and Shiawassee, for the period January 1, 1973 through

13. Grant of $10,666.66 from County of Genesee, Commissioners, Flint, Michigan, to be
    used under the direction of G. S. McIntyre in the Cooperative Extension Service to
    cover part of the salaries of additional Extension Agents assigned to Genesee

14. Grant of $2,333.33 from County of Gratiot, Commissioners, Ithaca, Michigan, to be
    used under the direction of G. S. McIntyre in the Cooperative Extension Service to
    cover partial support of an additional area 4-H Youth Agent, serving the Tri-County
    areas of Clinton, Gratiot and Shiawassee, for the period January 1, 1973 through

15. Grant of $3,500 from County of Kalamazoo, Commissioners, Kalamazoo, Michigan, to be
    used under the direction of G. S. McIntyre in the Cooperative Extension Service to
    cover part of the salary of a second Extension Agent assigned to Kalamazoo County

16. Grant of $4,000 from County of Kent, Commissioners, Grand Rapids, Michigan, to be
    used under the direction of G. S. McIntyre in the Cooperative Extension Service to
    cover part of the salary of an additional Extension Agent assigned to Kent County for

17. Grant of $5,000 from County of Presque Isle, Commissioners, Rogers City, Michigan, to
    be used under the direction of G. S. McIntyre in the Cooperative Extension Service to
    cover part of the salary of an additional Extension Agent assigned to Presque Isle

18. Grant of $7,000 from County of Washtenaw, Commissioners, Ann Arbor, Michigan, to be
    used under the direction of G. S. McIntyre in the Cooperative Extension Service to
    cover part of the salary of an additional Extension Agent assigned to Washtenaw County
19. Grant of $6,250 from County of Washtenaw, Commissioners, Ann Arbor, Michigan, to be used under the direction of G. S. McIntyre in the Cooperative Extension Service to cover part of the salary of an additional Extension Agent assigned to Washtenaw County for the period January 1, 1973 through June 30, 1973.

20. Grant of $148,905 from Michigan State Employment Security Commission, Detroit, Michigan, to be used under the direction of J. H. Booth in the Department of Agricultural Economics to improve manpower services in rural areas.

21. Grant of $4,170 from Consumers Power Company, Jackson, Michigan, to be used under the direction of R. L. Maddex in the Department of Agricultural Engineering as support toward the radio program "Energy for Living" and other educational programs related to the application and use of electricity for the year 1973-74.

22. Grant of $500 from Farm Bureau Services, Inc., Lansing, Michigan, to be used under the direction of C. J. Mackson in the Department of Agricultural Engineering for research, supplies, equipment, and travel.

23. Grant of $11,655 from Food and Agriculture Organization of UN, Rome, Italy, to be used under the direction of R. H. Wilkinson and C. J. Mackson in the Department of Agricultural Engineering to plan a training program for instructors in Buga, Colombia Farm Mechanization Center.

24. Grant of $350 from Hancor, Inc., Findlay, Ohio, to be used under the direction of G. E. Merva in the Department of Agricultural Engineering to model, using digital computers, the thermal characteristics of soil surrounding tile lines in which the outlet may be submerged during certain periods of the year.

25. Grant of $200 from Vinylast Corporation, Toledo, Ohio, to be used under the direction of G. E. Merva in the Department of Agricultural Engineering to model, using digital computers, the thermal characteristics of soil surrounding tile lines in which the outlet may be submerged during certain periods of the year.

26. Grant of $3,500 from Pickle Packers International, Inc., St. Charles, Illinois, to be used under the direction of D. R. Heldman in the Department of Agricultural Engineering to improve the quality of green stock and brine stock cucumbers through analysis of handling methods between mechanical harvesting and packaging.

27. Grant of $46,301 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of R. J. Evans in the Department of Biochemistry for research in lipid-protein binding in lipoproteins.

28. Grant of $5,000 from Dow Chemical Company, Midland, Michigan, to be used under the direction of B. D. Knezek in the Department of Agricultural Engineering to model, using digital computers, the thermal characteristics of soil surrounding tile lines in which the outlet may be submerged during certain periods of the year.

29. Grant of $5,000 from Dow Chemical Company, Midland, Michigan, to be used under the direction of J. M. Tiedje in the Department of Crop and Soil Sciences to study fate of ethylenediaminetetraacetate (EDTA) in the environment.

30. Grant of $500.55 from Eaton County Board of Commissioners, Charlotte, Michigan, to be used under the direction of E. P. Whiteside and I. F. Schneider in the Department of Crop and Soil Sciences to assist in doing the field mapping of Eaton County for 1972 fiscal year.

31. Grant of $5,000 from Michigan Foundation Seed Association, Inc., East Lansing, Michigan, to be used under the direction of E. H. Everson in the Department of Crop and Soil Sciences for the development of new varieties which carry quality factors and the resistance to disease, insects, and winter killing where it is possible and feasible to incorporate such resistance in wheat.

32. Grant of $4,000 from Michigan Hybrid Seed Corn Producers, East Lansing, Michigan, to be used under the direction of E. C. Roseman in the Department of Crop and Soil Sciences to continue present corn breeding research program.

33. Grant of $243,650 from Michigan Water Resources Commission, Lansing, Michigan, to be used under the direction of B. G. Ellis in the Department of Crop and Soil Sciences to study the influence of soil phase on the adsorption of nutrients and changes in physical properties during spray irrigation of effluent.

34. Grant of $4,000 from Michigan Water Resources Commission, Lansing, Michigan, to be used under the direction of B. G. Ellis and A. E. Erickson in the Department of Crop and Soil Sciences for contribution of phosphorus from septic systems to Water Quality at Houghton Lake.

35. Grant of $22,015 from Netlon Limited, Blackburn Lancashire, England, to be used under the direction of J. B. Beard in the Department of Crop and Soil Sciences for sod production development studies.

36. Grant of $103,008 from Consumers Power Company, Jackson, Michigan, to be used under the direction of P. I. Tack in the Department of Fisheries and Wildlife for renewal for continuation of ecological study on Lake Michigan in the vicinity of Ludington, Michigan.
37. Grant of $6,500 from Consumers Power Company, Jackson, Michigan, to be used under the direction of L. W. Gysel in the Department of Fisheries and Wildlife to analyze plant communities and animal populations in the vicinity of the Whiting Power Plant.

38. Grant of $500 from Anheuser-Busch, Inc., St. Louis, Missouri, to be used under the direction of J. F. Price in the Department of Food Science and Human Nutrition to study the quality and stuffing characteristics of emulsion sausages containing various non-meat additives and extenders.

39. Grant of $1,000 from General Mills Foundation, Minneapolis, Minnesota, to be used under the direction of G. A. Leveille in the Department of Food Science and Human Nutrition for graduate program support.

40. Grant of $31,868 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of G. A. Leveille in the Department of Food Science and Human Nutrition to determine the metabolic effects of varying the periodicity of eating particularly with regard to lipid metabolism and enzyme adaptation.

41. Grant of $900 from Pickle Packers International, Inc., St. Charles, Illinois, to be used under the direction of C. L. Bedford in the Department of Food Science and Human Nutrition to determine the brining performance of pickle varieties under various controlled laboratory conditions.

42. Grant of $500 from an anonymous donor to be used under the direction of J. L. Taylor in the Department of Horticulture to provide funds to send delegates to the National Junior Horticultural Association Annual Convention.

43. Grant of $5,000 from E. I. duPont de Nemours & Co., Wilmington, Delaware, to be used under the direction of J. Carew in the Department of Horticulture as an unrestricted grant.

44. Grant of $500 from Michigan Package Carrot Council, Grant, Michigan, to be used under the direction of L. R. Baker in the Department of Horticulture to support on-going research to develop high quality hybrids adapted for production in Michigan.

45. Grant of $2,000 from Michigan Vine Institute, Lansing, Michigan, to be used under the direction of G. S. Howell, Jr. in the Department of Horticulture to evaluate new grape cultivars for productivity, economics of production, and wine quality.

46. Grant of $1,000 from Union Carbide Corporation, Salinas, California, to be used under the direction of R. C. Carlson in the Department of Horticulture to support on-going research on bedding plants.

47. Grant of $4,000 from Mink Farmers Research Foundation, Pittsville, Wisconsin, to be used under the direction of R. J. Aulerich in the Department of Poultry Science for renewal of research on artificial insemination.

48. Grant of $8,954 from University of Wisconsin on behalf of WCOA/ARC, Madison, Wisconsin, to be used under the direction of W. J. Hooker and I. R. Uyeth in the Institute of International Agriculture to support Professor W. J. Hooker's short term assignment to higher agricultural education in Indonesia.

49. Grant of $100 from Dennis R. Diebolt, Dearborn, Michigan, to be used under the direction of G. M. Jones in the Department of Accounting and Financial Administration for faculty development.

50. Grant of $1,500 from Peat, Marwick, Mitchell & Co., Detroit, Michigan, to be used under the direction of G. M. Jones in the Department of Accounting and Financial Administration for departmental fellowship fund.

51. Grant of $200 from Creamette Company Foundation, Inc., Minneapolis, Minnesota, to be used under the direction of J. V. Allen in the Department of Marketing and Transportation Administration to sponsor activities and research in the Food Systems Economics and Management Program.

52. Grant of $500 from Motor Wheel Corporation, Lansing, Michigan, to be used under the direction of D. A. Taylor in the Department of Marketing and Transportation Administration to support the development of the marketing program and faculty.

53. Grant of $750 from Lincoln Telephone and Telegraph Co., Lincoln, Nebraska, to be used under the direction of H. M. Trebing in the Institute of Public Utilities to support the activities of the Institute.

54. Grant of $3,100 from Kenny-Michigan Rehabilitation Foundation, Detroit, Michigan, to be used under the direction of G. A. Miller in the Department of Counseling, Personnel Services and Educational Psychology for financial assistance to graduate students in the field of rehabilitation counseling.

55. Grant of $565 from various donors to be used under the direction of N. Ragan in the Department of Counseling, Personnel Services and Educational Psychology for interpersonal process recall research.
Gifts and Grants, continued

March 16, 1973

Gifts and Grants

56. Grant of $22,400 from Michigan Department of Education, Lansing, Michigan, to be used under the direction of P. Haines and R. E. Ray in the Department of Secondary Education and Curriculum in support for four Michigan participants enrolled in a leadership development program in vocational and technical education.

57. Grant of $11,595 from Mid-continent Regional Educational Laboratory, Kansas City, Missouri, to be used under the direction of R. A. Noon in the School of Teacher Education to install and monitor a McRel developed and tested system for training urban innercity education personnel.

58. Grant of $3,000 from Humble Companies Foundation, Houston, Texas, to be used under the direction of L. W. Von Tersch in the College of Engineering; $1,000 for unrestricted use and $2,000 for engineering program for minorities.

59. Grant of $5,000 from E. I. duPont de Nemours & Co., Wilmington, Delaware, to be used under the direction of F. X. Koenig in the Division of Engineering Research for studies in the management of environmental systems.

60. Grant of $11,880 from Ford Motor Company, Dearborn, Michigan, to be used under the direction of J. L. Lubkin in the Division of Engineering Research to provide methodology for predicting vibrational behavior of a typical fillet-welded joint in vehicle structural frame.

61. Grant of $193.66 from Ann Arbor-Detroit-East Lansing-Toledo Chapter American Federation for Clinical Research to be used under the direction of A. D. Hunt in the College of Human Medicine as an unrestricted grant.

62. Grant of $1,000 from Ingham County Medical Society, East Lansing, Michigan, to be used under the direction of A. D. Hunt in the College of Human Medicine to purchase books for the Human Biology Laboratory library.

63. Grant of $64,686 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of A. D. Hunt in the College of Human Medicine for general research support.

64. Grant of $294,274 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of C. C. Sweeney in the Department of Biochemistry for the mass spectrometry facility.

65. Grant of $35,523 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of W. E. Kottman in the Department of Biochemistry for RNA processing in tumor and transformed cells.

66. Grant of $32,602 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of W. E. Tolbert in the Department of Biochemistry for studies in metabolism of myoinositol during development.

67. Grant of $66,185 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of W. E. Tolbert in the Department of Biochemistry for studies in peroxisomes in developing liver and kidney.

68. Grant of $32,503 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of M. D. Bailie in the Department of Human Development to continue the study on possible mechanisms of the intrarenal action of angiotensin.

69. Grant of $26,678 from National Institutes of Health to be used under the direction of G. J. Grega in the Department of Physiology for research in pathophysiology of circulatory shock.

70. Grant of $9,400 from Kidney Foundation of Michigan, Ann Arbor, Michigan, to be used under the direction of E. D. Coppola in the Department of Surgery for transplantation biochemistry.

71. Grant of $2,500 from Transplantation Society of Michigan, Ann Arbor, Michigan, to be used under the direction of E. D. Coppola in the Department of Surgery as discretionary funds for technical help in procuring kidneys.

72. Grant of $35,000 from Mathy Bishop, Inc., Mulvera, Pennsylvania, to be used under the direction of B. Rosenberg in the Department of Biophysics for research on the biological effects of platinum group metal compounds in cancer chemotherapy.

73. Grant of $500 from Miller Chemical & Fertilizer Corporation, Hanover, Pennsylvania, to be used under the direction of E. S. Potter in the Department of Botany and Plant Pathology to continue investigations with spray adjuvants for improving effectiveness of fungicides.

74. Grant of $3,100 from A.S.M.T. Education & Research Fund, Inc., Bellaire, Texas, to be used under the direction of J. G. Enke and Ms. Schoepke in the Department of Chemistry for the ASMT instrumentation workshop, March 12-16, 1973.
75. Grant of $38,949 from U.S. Atomic Energy Commission, Bethesda, Maryland, to be used under the direction of J. Dye in the Department of Chemistry to study the properties of solvated electrons and associated species in metal solutions and kinetics of electron- and proton-transfer reactions.

76. Grant of $5,682 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of A. I. Popov in the Department of Chemistry to study physio-chemical properties of convulsant tetrazoles.

77. Grant of $1,500 from American Cyanamid, Princeton, New Jersey, to be used under the direction of G. Guyer, A. Howitt, and R. Ruppel in the Department of Entomology for evaluation of insecticides.

78. Grant of $1,200 from American Cyanamid, Princeton, New Jersey, to be used under the direction of A. Howitt in the Department of Entomology for evaluation of insecticides.

79. Grant of $3,000 from E. I. duPont de Nemours & Co., Wilmington, Delaware, to be used under the direction of A. Howitt in the Department of Entomology for evaluation of insecticides and miticides.

80. Grant of $300 from E. I. duPont de Nemours & Co., Wilmington, Delaware, to be used under the direction of C. Laughlin in the Department of Entomology for evaluation of nematicides.

81. Grant of $1,000 from E M Laboratories, Inc., Elmsford, New York, to be used under the direction of A. Howitt in the Department of Entomology for evaluation of insecticide.

82. Grant of $150 from Michigan Fruit Canneries, Benton Harbor, Michigan, to be used under the direction of A. Howitt in the Department of Entomology for fruit research.

83. Grant of $40,397 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of H. L. Sadoff in the Department of Microbiology and Public Health to study cell differentiation in procaryotic organisms.

84. Grant of $21,100 from National Science Foundation, Washington, D.C., to be used under the direction of B. W. Costilow in the Department of Microbiology and Public Health for control of sporulation in bacilli pathogenic for insects.

85. Grant of $1,163,000 from U.S. Atomic Energy Commission, Washington, D.C., to be used under the direction of A. Lang in the MSU/AEC Plant Research Laboratory for research and training at both the graduate and postdoctoral levels in experimental plant biology.

86. Grant of $22,701 from National Science Foundation, Washington, D.C., to be used under the direction of B. Cheney in the Science and Mathematics Teaching Center to conduct a cooperative implementation program for Science-A Process Approach materials with the Traverse City Schools for elementary classroom teachers.

87. Grant of $18,377 from National Science Foundation, Washington, D.C., to be used under the direction of L. G. Woodby and J. Wagner in the Science and Mathematics Teaching Center to conduct a two-week conference for school administrators in three mathematics curriculum efforts.

88. Grant of $191,646 from Michigan Association of Regional Medical Programs, Inc., East Lansing, Michigan, to be used under the direction of J. P. Howard in the Department of Community Medicine to develop a system model for the delivery of comprehensive health care services to low-income population in Pontiac, Michigan.

89. Grant of $4,600 from National Institute of Mental Health, Washington, D.C., to be used under the direction of I. Ishino in the Department of Anthropology to provide funds for Edward O. Henry.

90. Grant of $1,000 from Consumer Support Group., Lansing, Michigan, to be used under the direction of G. Fairweather and A. Beck in the Department of Psychology to cover computer costs necessary to analyze parts of the consumer participation program research data.

91. Grant of $2,500 from Michigan Department of Public Health, Lansing, Michigan, to be used under the direction of G. Andrew in the School of Social Work for graduate training in alcoholism.

92. Grant of $2,500 from African Studies Association, Brandeis University, Waltham, Massachusetts, to be used under the direction of A. E. Opobor in the African Studies Center to pay part of the expenses for the publication of the African Studies Review.

93. Grant of $1,500 from Embassy of Japan, Washington, D.C., to be used under the direction of W. T. Ross in the Asian Studies Center to support expenses for Japan Week as part of Focus on Japan program.

94. Grant of $25,275 from National Institutes of Health, Bethesda, Maryland, to be used under the direction of W. W. Armistead in the College of Veterinary Medicine for general research support.
B. GIFTS AND GRANTS, continued

March 16, 1973

95. Grant of $53.62 from Northwestern Michigan Aquarium Club, Williamsburg, Michigan, to be used under the direction of W. W. Armistead in the College of Veterinary Medicine as an unrestricted grant.

96. Grant of $300 from Women's Auxiliary to Michigan Veterinary Medical Association, Hartford, Michigan, to be used under the direction of W. W. Armistead in the College of Veterinary Medicine for the Veterinary Clinic Library.

97. Grant of $37,951 from American Cancer Society, New York, New York, to be used under the direction of C. W. Welsch in the Department of Anatomy to study the prophylactic and chemotherapeutic potential of certain ergot alkaloids in the management of breast cancer.

98. Grant of $25,000 from Elsa U. Pardee Foundation, Midland, Michigan, to be used under the direction of L. Velicer in the Department of Microbiology and Public Health to study proteins in cells infected with cancer related viruses.

99. Grant of $8,897 from Parke, Davis & Company, Detroit, Michigan, to be used under the direction of G. H. Conner in the Department of Large Animal Surgery and Medicine for the continuation of effects of a hormonal study on reproduction in heifers.

100. Grant of $100 from Ihor John Basko, Van Nuys, California, to be used under the direction of W. F. Keller in the Department of Small Animal Surgery and Medicine as an unrestricted grant.

101. Grant of $500 from Fraser Sweatman Inc., Scarborough, Ontario, to be used under the direction of D. C. Sawyer in the Department of Small Animal Surgery and Medicine for research.

102. Grant of $394.66 from Parke, Davis and Company, Detroit, Michigan, to be used under the direction of W. F. Keller in the Department of Small Animal Surgery and Medicine for continuation of research.

103. Grant of $2,000 from The Sampson Corporation, Pittsburgh, Pennsylvania, to be used under the direction of W. O. Brinker in the Department of Small Animal Surgery and Medicine for continuation of comparative study of various methods of fracture fixation for the long bones, mandible and pelvis of the dog.

104. Grant of $771 from Travenol Laboratories, Inc., Morton Grove, Illinois, to be used under the direction of D. C. Sawyer in the Department of Small Animal Surgery and Medicine for continuation of research in subacute toxicity of BAX 3224 in macaca speciosa.

105. Grant of $8,000 from The Danforth Foundation, St. Louis, Missouri, to be used under the direction of P. L. Dressel in the Office of Institutional Research for the study of educational objectives and evaluation procedures developed in connection with external degree and non-traditional educational programs.

106. Grant of $40.86 from Dirk Gringhuis to be used under the direction of R. H. Baker in the Museum for publications.

107. Grant of $205,800 from Michigan Department of Mental Health, Lansing, Michigan, to be used under the direction of H. Fowler in the Department of Psychiatry and the Continuing Education Service for a program of staff development, continuing education and program consultation for state hospitals and community mental health programs.

108. Grant of $4,829.88 from State of Michigan Commission on Aging, Department of Social Services, Lansing, Michigan, to be used under the direction of W. F. Keller in the Department of Small Animal Surgery and Medicine for television service to televise programs aimed at retired persons.

109. Grant of $300 from W. J. Bradford Paper Company, Holland, Michigan, to be used under the direction of C. R. Wharton, Jr. in the President's Office as an unrestricted grant.

110. Grant of $350 from Holland Evening Sentinel, Holland, Michigan, to be used under the direction of C. R. Wharton, Jr. in the President's Office as an unrestricted grant.

111. Grant of $240 from Sybron Community Fund, Rochester, New York, to be used under the direction of C. R. Wharton, Jr. in the President's Office as an unrestricted grant.

112. Grant of $500 from American Metal Climax Foundation, Inc., New York, New York, to be used under the direction of J. D. Shingleton in the Placement Bureau to compile data regarding career plans for graduates after graduation, covering all disciplines and all degree levels.

113. Grant of $13,287.06 from U.S. Office of Education, Washington, D.C., to be used under the direction of C. W. Minkel in the School for Advanced Graduate Studies to cover the cost of the NDEA Title IV fellowship program for 1971-72.


Motion was made by Trustee Thompson, seconded by Trustee Carrigan, and unanimously approved to accept the Gifts and Grants.
C. BIDS AND CONTRACT AWAIDS

March 16, 1973

1. Bids were received on March 7, 1973 for the remaining areas of work — building, electrical, and mechanical trades — for Power Plant 65 - Unit 3. A single bid was solicited for these trades.

The base bid included provision for firing the new boiler (#3) with oil, coal or natural gas. Two "add" alternate bids were solicited. Number one was for an oil storage and handling facility. Number two was for oil firing conversion for Boilers #1 and #2. Following is a tabulation of bids received:

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Base Bid</th>
<th>Alternate #1</th>
<th>Alternate #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lome Company, Pontiac</td>
<td>$3,830,000</td>
<td>$978,000</td>
<td>$308,000</td>
</tr>
<tr>
<td>Christman Company, Lansing</td>
<td>3,859,900</td>
<td>1,028,700</td>
<td>378,000</td>
</tr>
<tr>
<td>Hickey Co., South Bend, Indiana</td>
<td>3,897,500</td>
<td>1,054,000</td>
<td>393,000</td>
</tr>
<tr>
<td>Clark Construction Co., Lansing</td>
<td>3,904,686</td>
<td>977,792</td>
<td>344,775</td>
</tr>
<tr>
<td>Granger Construction Co., Lansing</td>
<td>3,999,000</td>
<td>1,040,000</td>
<td>383,000</td>
</tr>
<tr>
<td>P.H.I. Construction Co., Lansing</td>
<td>4,087,000</td>
<td>1,156,000</td>
<td>375,000</td>
</tr>
<tr>
<td>John E. Green Co., Saginaw</td>
<td>4,230,000</td>
<td>899,000</td>
<td>310,000</td>
</tr>
</tbody>
</table>

The architects, Commonwealth Associates, and our Mr. Simon, have agreed that the University should delay action on the oil firing issue covered by alternates one and two until they investigate the various fuel issues and consult with responsible parties at the State level.

Lome Company advised that they will hold their quotation firm for ninety days (June 5, 1973) for alternatives one and two.

It is recommended that a contract be awarded to Lome Company of Pontiac, Michigan, for the construction trades for the amount of their base bid of $3,830,000, with the understanding that alternatives one and two will be considered later.

Awarding of this work completes the bidding areas for Power Plant 65 Addition. These awards are within the project budget authorized by the State. A final budget will be presented to the Board when a decision is reached on alternatives for oil firing.

RESOLVED that a contract be awarded in the amount of $3,830,000 and that alternatives one and two be deferred for review.

Unanimously approved. Motion by Trustee Huff, seconded by Trustee Carrigan.

D. OTHER ITEMS FOR ACTION

1. The Board action of May 19, 1972 approved the plans for the establishment of a College of Urban Development. Since that date a great deal of effort has been devoted to getting ready to accept the first students fall quarter, 1973. Considerable progress has been made in formulating for these two departments the areas of responsibility, the relationships with existing units in other colleges, and in identifying potential faculties and acting department chairmen.

Also, during this period the broad outlines of academic programs which articulate effectively with existing programs have been outlined. Recommendations concerning the actual courses, who will teach them, and other details will move through the normal channels of academic governance.

The Administration recommends that the two departments identified in the Board's action of May 19, 1972 be officially created by the Board. At the April Board meeting there will be a series of "Change of Status" actions which will request official transfer to these units of the faculty members identified at that time. An acting chairman for the Department of Urban and Metropolitan Studies, Professor Wilbur Brookover, is recommended elsewhere for approval.

RESOLVED, that the Department of Urban and Metropolitan Studies be established in the College of Urban Development, and the Department of Racial and Ethnic Studies be created jointly in the College of Social Science and the College of Urban Development. The effective date for establishment of both departments is March 1, 1973.

Unanimously approved. Motion by Trustee Radcliffe, seconded by Trustee Carrigan.

Adjourned at 11:10 a.m.