Chapter 6 1951 - 1957

Aerial view of Brigham Young University Upper Campus - 1954
On February 4, 1951, Ernest L. Wilkinson assumed the duties of President of the Brigham Young University. He had been appointed five months earlier, but his law practice in Washington D.C. required his attention during this time (In This Brief Span, T. Earl Pardoe and Newburn I. Butt).

The first seven years of President Wilkinson’s term, 1951 to 1957, were years of great significance. It was during this time that the 1957 campus master plan was developed. The following thirteen years of his term were years of great change to the campus for it was during these years that the major portion of construction as previously master planned was accomplished.

Introduction
The department of Buildings and Grounds had been expanded and reorganized in 1947. Leland M. Perry was appointed Superintendent at that time and continued on through President McDonald’s term and into President Wilkinson’s. In September of 1954, the name of the Department was changed from Department of Buildings and Grounds to the Physical Plant Department. With this name change came another reorganization including new assignments, titles and responsibilities. Leland M. Perry continued on as Superintendent with Maccene Grimmett, secretary. Robert B. Hellewell was Assistant Superintendent in charge of maintenance of buildings and facilities, including custodial work in academic buildings, supervision of campus telephone exchange, keys, scheduling of buildings, locker rentals, in-service training program, and research and studies of materials and methods. Karl A. Miller, also Assistant Superintendent, continued to be in charge of heating, to include operation of the heating plants and supervision of the plumbing and heating shops. J. Alvin Higbee was appointed supervisor of shops and construction with responsibility for the Carpenter Shop, Paint Shop, Electric Shop, Sheet Metal Shop, Furniture Repair, the Locksmith, General Services and the Motor pool. The following other areas of the Physical Plant Department reported directly to Mr. Perry: Payroll and Accounting, Lawns and Gardening, Engineering and Surveying. (Consolidated Report of the Physical Plant Department, Brigham Young University, from 1947 through 1957, pp. 5-6)

This organization continued on from 1954 with minor changes in personnel and assignments until the latter part of 1957 when Mr. Perry was granted a leave of absence to serve as President of the West Spanish American Mission. Just prior to his departure for the mission field, Mr. Perry and his staff prepared a report covering the previous ten years. In the conclusion of this report on pages 55 to 71 is an unusually clear and complete picture of the Department of Physical Plant at that point in history (1957). Because of its completeness and accuracy, it is felt justifiable to include all of it in this history.

Personnel - 1951-1957
Physical Plant Department - 1947-1957

1. General

The Physical Plant Department is charged with the responsibility of maintaining the physical facilities of the University which are devoted to the academic program. This includes the cleaning and maintenance of buildings; the care and maintenance of roads, walks and parking areas, including snow removal; the care of lawns, shrubbery and flowers; the removal of waste from the academic buildings; the operation of the heating plants and distribution systems; the maintenance of all campus utility distribution systems; the scheduling of academic buildings for the extracurricular activities; and the maintenance of the master campus key file.

In addition, the department has been responsible for more than one hundred special projects for construction of roads, walks, curbs and gutters, new lawns and sprinkling systems, extensive remodelings and new construction such as the new Press Box and the conversion of the Central Heating System.

The principal departmental operations and procedures being followed at the present time are reviewed herein.

2. Keys and Scheduling

In order to maintain the security of the buildings, keep a record of all the keys issued, provide keys for authorized persons, and keep the locks and hardware in good operating condition, a complete key department is operated. File keys are maintained for every lock on campus, using the P. O. Moore Tel-Kee system. Each key is coded and numbered for identification. Keys are issued to faculty and administrative personnel only upon written authorization of the Dean or head of the Department. The person receiving the key must agree to the following regulations:

1. Keys are to be used only by persons to whom issued.
2. All keys remain the property of BYU
3. Duplicates of keys are not to be made. Replacements for lost keys will be issued upon request.

The department employs a full-time locksmith, who is experienced and capable of handling the work, including the design of keying systems and the re-keying of buildings.

Scheduling of campus buildings and facilities for non-academic use is handled by the Physical Plant Department. A full-time scheduling service is maintained in order to meet the requirements. The lack of adequate building facilities on the one hand and the unusual activity brought on as a result of the BYU Stake and Wards program requires this service in order to avoid conflicts in usage and to provide directions to the building custodians for taking care of arrangements.

All schedules are coordinated with the Dean of Students and are cleared by the Physical Plant Department through the Student Coordinator’s Office. Scheduling of main events is handled through a Campus Scheduling Committee headed by the Dean of Students.

During 1956, University facilities were scheduled for 4800 non-academic functions, not including the regular meetings of the BYU Wards and Stake. In 1957 there was a total of over 7500 non-academic events scheduled through the Department.

Personnel 1951-1957

186
3. Custodial

The custodial work in all academic buildings is the responsibility of the Physical Plant Department. The Department does not have any responsibility for custodial work in the housing buildings except on specific order.

Custodial operations include: daily cleaning of floors and dusting of furniture, woodwork, and fixtures; regular waxing of polished floors (terrazzo tile, hardwood, etc.); daily removal of waste materials from the buildings; cleaning and maintenance of window shades and Venetian blinds; cleaning of walls, windows, air ducts, rugs, carpeting, drapes, etc.; regulation of building heating and ventilating facilities; setting up (and taking down) for activities such as banquets, socials, concerts, assemblies, etc., including hauling and moving furniture, unlocking and opening up of all buildings for the regular academic program and for scheduled special activities; night check and lock-up of buildings following regular activities and special events which carry on to a late hour, including stand-by duty during dances, concerts, etc.; operation of night lights; and cleaning of building steps and connecting walks, including snow removal and de-icing.

Contrary to the practice at most universities, the custodial operation at BYU is a seven-day per week program. The Sunday and week-day program of the BYU Wards and Stake require extra services from the custodial staff to open and close buildings and to do extra janitorial work required for the following school day. The Department is reimbursed by the BYU Wards and Stake to compensate for the extra costs incurred.

Many services and expenses which are normally charged elsewhere at other institutions are included in the custodial budget at BYU, such as replacement of lamps, including the cost thereof, security of buildings, night stand-by service, etc.

The gross floor area of all academic buildings served by the Custodial Department has increased from 266,154 sq. ft. in 1947 to 869,000 sq. ft. in 1957, an increase of approximately 227 percent. A schedule included in this report indicates that after allowing for inflation due to increases in wages and cost of materials, the unit cost has actually decreased during the period under study.

The custodial staff is comprised of 37 full-time and 130 part-time student employees, as follows:

- The Custodial Supervisor
- Six area or building Foremen
- One full-time Custodian for each major building or group of minor buildings
- Eight matrons assigned to Women’s Restrooms
- Part-time student employees, restricted to 20 working hours per week
4. Maintenance and Construction Shops

General

The Physical Plant budget has a number of accounts covering repairs, maintenance and replacements. These are shop operations covering the customary trades. Mechanics from these shops take care of the repairs, maintenance and replacements (RM&R) on all academic buildings. This cost is included in the Physical Plant budget.

These shops also do work for housing and Auxiliaries and during the past several years have done many thousands of dollars worth of work on Special Projects. In addition, the shops do considerable work for academic departments—work which is not part of the Physical Plant, but departmental in nature, such as work on equipment and facilities.

In order to carry this extra workload, beyond the need for maintenance of academic buildings and facilities, the shops are overstaffed insofar as the Physical Plant budget is concerned. As pointed out elsewhere in the report, each employee of the Physical Plant Department, whether salaried, full-time hourly or part-time student, is charged to a particular budget account and his wages each pay period are paid from this budget account. Each month the Physical Plant Accounting Department bills the Special Projects, Housing and/or Auxiliaries, or the academic area for work performed. Obviously, the number of extra mechanics employed, beyond the number actually needed to maintain the academic buildings, must be carefully and judiciously regulated to prevent a disastrous overrun in the departmental budget. There is an admitted hazard in the present method of operation, but by careful management and scheduling of work it has been made to function satisfactorily. Consideration has been given to the idea of splitting the crew and charging to the Physical Plant budget only those mechanics who actually work on maintenance of academic buildings and facilities, and setting up another crew which would fluctuate in size according to the demand for services on Special Projects and “outside” work. While this scheme has been considered, it presents so many additional problems that it has been considered wise not to move in this direction.

The Physical Plant Shops

A brief description of the scope of operations of each day of the Physical Plant shops follows. The Plumbing and Heating Shops, and Office Equipment Repair Shop are presently under the supervision of Karl Miller; all other shops, consisting of Carpentry, Electrical, Painting, Sheet Metal, Furniture Repair and General Services, are under the supervision of John L. Smith. Each shop is under the direction of a Foreman.

The shops do not actually have an operating budget; rather, the budget for the various classifications of work is for Repairs, Maintenance and Replacements on the academic buildings. In a sense the shops are separate operating units expected to make their own way. A central shops office is maintained in a temporary building in the shops area. This office houses the Shops Superintendent, plus clerical help to write all work directives; to receive calls for services; to collect daily time cards from the shops and process them to Physical Plant Accounting; to process requisitions and procure materials and supplies for the shops; and to operate the base station of the two-way radio system used by the department.
Carpentry and General

Included in this shop and budget classification are the Carpenters, Cabinet Makers, Sheet Metal workers, Concrete Finishers, and Locksmith. The shop is operated in a 20 x 100 ft. temporary barracks buildings with adjacent sheds for storage of lumber and materials. A supply room within the building contains a stock of hardware and materials regularly used in the shop operations.

The Carpenter Shop is equipped with power tools: planer, jointer, cut-off saw, table saw, band saw, drill press, skill saw, power drills, etc. The Carpenters furnish their own hand tools.

The sheet metal work is done in a separate building. This shop is equipped with cutter, brake, shaper and welding equipment.

The regular shop crew consists of a foreman, six full-time carpenters, a sheet metal foreman and a locksmith on a salary basis, in addition to part-time students. Also, full-time carpenters are hired when needed.

Paint Shop

The Paint Shop is housed in a temporary barracks building at the south side of the Physical Plant yard (stockade). The Furniture Repair Shop is housed in the same building. A paint spray booth is situated between the two shops, available to both. Space is available in the same building for the storage of paint and other supplies. An adequate working stock of glass is maintained in the Paint Shop.

A maintenance painting schedule is carried on continuously throughout the year. In addition the Paint Shop performs work on Special Projects and renovation work.

The present crew consists of a foreman and five full-time, salaried workers. Part-time students help and full-time painters are employed in accordance with the workload. At times the paint crew has numbered over 30 employees.

Furniture Repair Shop

The furniture Repair Shop occupies a space 20 x 40 ft. in the same building with the Paint Shop. The shop is equipped with two electric-powered sewing machines, a wood lathe, and a rather complete assortment of tools and equipment for upholstery work, for doing all staining, lacquer work and refinishing in connection with furniture repair.

The shop repairs furniture for not only the academic plant but also housing, and in addition takes care of window shades, curtains, draperies, motion picture screens, rugs, carpets and floor coverings. Furniture is repaired, rebuilt, restyled and recovered. Several major special jobs have been handled by the Furniture Repair Shop, such as replacing the upholstery on the seats in the Joseph Smith Memorial Building.

The present staff consists of a foreman and two part-time helpers.

Personnel 1951-1957

189
Office Equipment Repair Shop

The Office Equipment Repair Shop is in a space 12 x 20 ft. in the end of the Paint and Upholstery Shop building. This shop has the responsibility for the servicing and repair of all typewriters, adding machines and other office machines on campus except I.B.M. machines. Cleaning tanks, compressed air and other necessary facilities are available. A small stock of regularly used parts is maintained. Some special tools are provided by the shop, but the serviceman furnishes most of the tools used.

The Physical Plant budget provides routine servicing and maintenance for most of the office machines used in the academic plant, but the respective departments are charged for major repairs.

The present shop staff consists of a full-time foreman and two part-time student helpers.

Electrical Shop

The Electrical Shop is housed in a 20 x 30 ft. temporary building. The shop is equipped with tools and equipment for repair of appliances and small equipment. The bulk of the work of this shop is done in the campus buildings. An ample stock of small parts, wire, conduit, etc. is maintained in the Shop.

This shop maintains the campus lighting system, campus electric distribution system and all electric facilities and appliances in the academic building. Work is also performed for housing and auxiliaries, and on departmental equipment. Stand-by service is provided at all large gatherings such as football games, pageants, basketball games, etc.

In addition to a full-time shop foreman, the crew consists of two full-time electricians and from three to five part-time student helpers.

Plumbing and Heating Shops

Although set up under separate budget accounts, the Plumbing and Heating Shops are operated jointly under the direction of Karl Miller. A 20 x 60 ft. space in a temporary barracks building houses the operations. Storage space is provided in the shop for an ample supply of fittings, pipe, repair parts, etc. The shop is equipped with power operated pipe cutting and threading equipment, a roto-rooter for cleaning sewer lines, tapes, tools, etc.

The Plumbing and Heating Shops maintain all plumbing and heating systems within the academic buildings, making regular service checks, and repairing and cleaning defective equipment.

The Plumbing and Heating Shops have handled a number of new installations under Special Projects, including major work in the Brimhall Building, Engineering Laboratory Building, Physical Plant Building, Speech Center, etc.

The combined shops employ three full-time men—a plumber, a pipe fitter and heating man, and a repairman on heat controls. In addition, from three to ten part-time students have been employed.

Personnel 1951-1957

190
General Services

The General Services Shop handles a variety of services and operates from space in the south end of the Motor Pool Quonset. This shop handles such jobs as moving furniture, band instruments, etc.; erection and/or dismantling of bleachers; unloading paper, equipment and furniture from railroad cars; grading and repair of roads, walks and parking lots; installation of power poles; regular removal of ashes from the Central Heating Plant; clean-up and removal of trash, etc.; installation of traffic signs.

The shop has a back-hoe, motor patrol grader, road maintainer grader, fork lifts, dump trucks, compressors, jack hammers, welding outfits, together with hand tools such as picks, shovels, etc.

A foreman, three full-time equipment operators and from four to ten part-time students are employed to take care of General Services.

5. Motor Pool

The majority of University-owned automotive equipment is under the jurisdiction of the Motor Pool. Although the Motor Pool is under the supervision of the Director of Physical Plant, it is not operated under the Physical Plant budget. The Motor Pool is housed in a 40 x 120 ft. Quonset building and employs two full-time mechanics, one of which is Foreman, and an average of two part-time student helpers who have charge of the maintenance of the equipment. Lubrication and tire repair services are done by off-campus firms.

Equipment may be rented from the motor pool by the Physical Plant Department and by all other departments of the University. Equipment used regularly by a department is charged for on a monthly basis with the user furnishing all gas and oil. A number of station wagons are used for group trips to other universities. Charges for such vehicles are computed on a mileage basis. Trucks and heavy-duty equipment used principally by the Physical Plant Department are charged for on an hourly basis.

The rate schedule is designed to provide sufficient income to maintain the particular piece of equipment in service and to build up a sinking fund sufficient to replace it.

6. Domestic and Irrigation Water

The University has water rights in two irrigation canals which pass through the campus. Some of the playfields are irrigated from these canals, but in order to schedule the time and amount of irrigation in keeping with the academic program, these fields are irrigated during the school year by the regular sprinklers served from the domestic system.

All water for domestic use and lawn sprinklers is purchased from Provo City. This water is delivered to the University system through 18 metering points situated at different places on University property. The water used by Housing and Auxiliary operations is distributed through the University system and these agencies are billed for the water used.

In 1956 the Physical Plant budget paid $20,308.08 for water used in the academic buildings and on the grounds. The average cost was $.0836 per 100 cu. ft.
In 1957 the water used by the academic plant, exclusive of Housing and Auxiliaries, cost $21,183.04. To this amount is added $12,478.77 for water used by Housing and Auxiliaries, making a total of $33,661.81 for water purchased from Provo City.

In 1955 the University started the development of an independent domestic water supply. The first stage consisted of the drilling of a 16-inch well near the Men’s Residence Halls site, which produces 1800 gallons of water per minute from a depth of 113 feet, with a draw-down from the static level of only 21 feet. The project, on which the preliminary engineering work has been completed, provides for the construction of a 500,000 gallon reservoir on University property near the Provo City reservoir, with necessary connecting and service lines. It is also planned that an exchange agreement will be worked out with Provo City to provide stand-by water service in the event of failure of the pumping equipment.

The present rate for water purchased from Provo City ranges from $.08 to $.089 per 100 cu. ft. It is estimated by the engineers that the cost of pumping water from the well to the proposed reservoir would be about $.0138 per 100 cu. ft. After adding maintenance, depreciation and other costs, it is believed that the University can supply its water for less than half the cost of purchasing water from Provo City.

7. Electric Power

Electric power used by the University is purchased from Provo City Department of Utilities, (a municipal steam generating plant) with exception of a few isolated services. The power is delivered to a substation on the Upper Campus near the Central Heating Plant through two circuits, one an 11 KVA service line and the other a 4 KVA service line. The transformer sub-station furnished by the Power Company reduces the voltage for distribution over the University lines to the points of use. Adjacent to the sub-station is a metering station and a bank of heavy-duty switches which control the basic distribution circuits.

From this switch point, transmission lines lead to transformers convenient to all buildings, parking lots, street lights and other facilities, including the Lower Campus and Housing units.

The University has two principal peak loads during each 24 hours. These are of relatively short duration, but they result in increased power costs because of the demand factor in the power rate structure. Consideration has been given to the feasibility of installing auxiliary generating equipment to absorb these peaks, but studies made so far have not produced a satisfactory solution.

8. Sewer System

The University sewage disposal is handled through a rental arrangement with Provo City. Two principal trunk lines lead from the Upper Campus to connections with the City sewer systems, one on 700 East and 900 North Streets, and the other at 150 East and 1200 North Street.

Provo City constructed a sewage treatment plant in 1955 and, by ordinance, established a rental rate for all users in order to provide revenue to retire the improvement bonds. The University pays $.08 per month for each full-time student enrolled at

Personnel 1951-1957

192
the university or in the Training School. This was a special rate worked out with the City. The base rate is reviewed and revised periodically during the year as the enrollment changes.

The above rate applies to and covers all Academic and Housing uses on-campus and in the University-owned housing units. Housing and Auxiliaries are charged a proportional part of the cost of sewer rental.

9. Waste Removal

So-called “wet garbage” from the cafeterias and dining halls, and from the apartments and dormitories, is picked up and disposed of by Provo City Department of Utilities. The University handles the disposal of waste paper and “dry” garbage from the academic buildings.

A modern Pak-Mor garbage truck mounted on a 1955 1-1/2 ton Ford truck is used. One full-time employee and a part-time student are employed in this daily operation. The waste material is hauled to the Provo City Dump south of Provo City, a distance of 6.6 miles round trip.

The David O. McKay Building and the Joseph F. Smith Family Living Center have been equipped with built-in incinerators which have materially reduced the waste disposal problem from these buildings. It is intended that all new buildings to be constructed be equipped with an incinerator built into the building.

Consideration has also been given to the construction of an incinerator at the Central Heating Plant for handling both wet and dry waste, but a feasible scheme has not been worked out.

10. Grounds and Lawns

The care of the grounds, shrubs, flowerbeds and lawns is the responsibility of the Physical Plant Department. Most of the permanent planted areas have sprinkling systems and most of these are equipped with automatic time clocks to control the sprinklers.

Modern gang mowers are used on the larger areas while smaller units are available for trimming and taking care of the smaller plots. The department also has a powered street sweeper and sidewalk brooms.

Periodical pick-up of waste paper from the lawns and grounds is the responsibility of this Department. Also, the Grounds crew takes care of the marking of athletic play fields and the setting out of equipment. Removal of snow from sidewalks and steps is also the responsibility of the Grounds Department, as well as the cleaning of all walks and gutters.

During the past several years the Grounds Department has handled several major landscaping projects in connection with new buildings, including grading, placement of top soil, planting of lawns and shrubs and in some cases the sprinkling systems.

The lawns, gardening and grounds work is under the direction of Carl Morrison, with Wendyl Jarvis as his assistant. In addition there are six full-time men on the crew. Part-time student help is employed as conditions warrant, ranging from 8 to 12 men.

Personnel 1951-1957

193
11. Roads and Walks

The Physical Plant Department has responsibility for the maintenance of all roads, walks and parking lots; the maintenance of all gutters, culverts, drains and sumps; and the removal of snow from the roads and parking areas.

Equipment available on a rental basis from the Motor Pool includes a motor patrol grader, road maintainer grader, trucks equipped with snow plows and devices for sanding roads in wet weather and tar pots for hot patching of roads.

Roads and walks are under the supervision of Lynn Rogerson, but there are no regular employees charged to this account. Rather, when work is done on roads and walks, the time is charged to that account, and the budget account which supplies the manpower, or equipment, it credited for the services rendered.

12. Electronics and Public Address

An efficient and unique public address system has been developed over the past years for handling large crowds and for recording important events. Two major control centers have been established, one in the George Albert Smith Fieldhouse and the other in the Joseph Smith Memorial Building. High fidelity recording equipment is also provided in the Control Room at the Smith Building.

Through a system of telephone lines which have been installed in the heat tunnels by the department, programs originating at several points on campus may be transmitted over these private lines to the Smith Building for recording. All assemblies are recorded, as are most concerts and productions by the Music Department. Over the years a duplicate tape library has been built up of assembly talks, graduation exercises and concerts and programs which is irreplaceable.

In several of the newer buildings public address equipment has been installed to assist the handling of large classes or other academic work. These P.A. systems are maintained by this Department. In addition, portable public address equipment is available for handling special events.

The Electronics and Public Address Department is headed by Francis Boyer. Student assistants are employed on a part-time basis to assist with the increasing work load.

The departmental budget covers all events of a general nature, but the Music, Speech, Motion Pictures, student groups and others are charged on a time basis for services rendered.
13. Heating Plant Operations

The operation of the heating plants and systems is divided. Wilfred (Bill) Day has charge of the operation of the Central Heating Plant, the high temperature water distribution system including the conversion units, and the high pressure steam distribution system. Karl Miller has charge of the low pressure heating plants and the heating systems within the buildings.

There are several heating plants in service in addition to the Central Heating Plant. At the lower campus there are two plants. These are gas-fired and semi-automatic, requiring only periodic inspection visits. One plant, located adjacent to the Arts Building, furnishes heat for the Arts building, Training Building, Education Building and College Building; also, hot water for the Men’s Gymnasium (top floor Training Building).

The second plant is located in the Women’s Gymnasium, on the west side of University Avenue, and furnishes heat and hot water for that building. The isolated buildings on the south side of 5th North Street are heated by gas-fired space heaters.

The Karl G. Maeser Building, Heber J. Grant Library, and George F. Brimhall Building on the Upper Campus have been heated over the past years from a gas-fired plant located on the hillside south of the Library Building. This plant is semi-automatic and requires only periodic inspection. The Joseph Smith Memorial Building has an independent gas-fired plant.

All four of the above buildings can be supplied with heat from the central high temperature water system by simply operating control valves. To accomplish this a steam generator (high temperature water to low-pressure steam) has been installed in the old broiler plant south of the Library.

The President’s Home and the Stadium House each have an independent gas-fired heating plant.

The Central Heating Plant and system was converted to high temperature water in 1956 and 1957. Two new 50-million Btu/hr hot water boilers were installed in the Central Heating Plant and the distribution lines to the west, in the tunnels, now carry water at 375 degrees F. instead of steam. Converter units are provided in or convenient to each building or group of buildings, which supply low-pressure steam or low temperature water (180 degrees F. – 210 degrees F.) for the building heating systems.

The Central Heating Plant also has a steam boiler which supplies steam at 60 lbs. to 80 lbs. to Wymount Village, Heritage Halls, the Speech Center, Motion Picture Studio and the temporary buildings in the Physical Plant shop area.

The Central Heating Plant uses coal from the Church Welfare Mine in Emery County. The new high temperature water boilers use spreader stokers and the steam boiler uses a coal pulverizer.

The operation of the heating plants is not included in the Physical Plant budget. Rather, these operations are handled under the account numbers shown above and operate as independent units. Costs are incurred for fuel, maintenance and labor and Physical Plant budget and Housing and Auxiliaries are billed each month for the heat furnished. This is calculated on an actual cost basis, with no charge made for retirement of the capital investment in the plant.

The operating crew at the Central Heating Plant consists of Bill Day, Chief Engineer, and seven full-time operators. Part-time student help is employed for clean-up and maintenance work.

Attendance checks and summer renovations of the low pressure heating plants are handled by the Heating Plant.

Personnel 1951-1957

195
Employment - Part-time Student Help

General

All employees of the Physical Plant Department are cleared through the University Placement Office. A few of the key administrative personnel are carried on the faculty payroll. Salaried employees are extended the customary benefits of vacation leave, sick leave, free tuition up to five hours each quarter for University classes for the employee and spouse, and activity card privileges.

Announcement has been made by the Administration that the Retirement Program will be extended to the salaried, non-academic personnel after January 1, 1958. This will affect all salaried workers in the Department.

Consistent with University policy, the Physical Plant Department has made it a policy to employ the maximum number of students. Present regulations permit them to work a maximum of 20 hours per week. A large number of students are employed in the Custodial Department. Students who are skilled in the building trades and other fields are used to the greatest extent possible, at increased wages over the unskilled person.

The ratio of part-time student employees to full-time employees maintains at about three to one. The total man-hours of student help is greater than the man-hours of full-time workers. During a peak period in 1956 and 1957 there were over 235 students employed by the Physical Plant Department. The average number of students employed runs around 200.

In the main the Physical Plant Department has found part-time help to be efficient. The employment of students has permitted the department to carry on operation and maintenance of buildings and facilities, and to perform new construction work, at a greatly reduced cost. (Consolidated Report of the Physical Plant Department, Brigham Young University, from 1947 through 1957, pp. 55 to 71.)
Incidents of thievery and vandalism in 1950 and 1951 prompted the administration to employ a full-time security officer. Brother Cleon Skousen of the faculty was asked by the administration to contact someone who might be interested in, and have the ability to establish a security program at the University. He subsequently contacted Leonard E. Christensen, a retired Los Angeles Police Department Captain, who was then serving as the Chief Security Officer at UCLA.

As a result of this contact, Captain Christensen came to BYU in October of 1952 and established the BYU Security Office which was later housed in the south end of the Wymount Cafeteria, a war surplus army barracks. In a joint agreement between the University and Provo City, Captain Christensen’s salary was shared equally between the two. (Interview with Leonard Christensen by Swen C. Nielsen.) Captain Christensen was assigned to administratively answer to the Dean of Students, Wesley P. Lloyd. During the entire period from 1952 to 1957, Security was not a part of the Physical Plant Department. It was not until 1960 that it was transferred to Physical Plant.

A considerable amount of faculty resistance was felt by the new security director as he began to function. However, he showed a need for security services even at a Church university and gradually gained acceptance from both faculty and students.

As the thefts at the Fieldhouse had to a large extent precipitated the hiring of a security officer, he naturally focused most of his attention there. This resulted in twenty to thirty apprehensions of individuals who were stealing from the lockers there.

For the first year or so, Captain Christensen had no office, but simply worked “out of his briefcase.” Eventually, he was given office space, and then the responsibility for the lost and found program. As the security program grew, additional personnel were hired. (Interview with Leonard Christensen by Swen C. Nielsen.) Walter Read was employed September 1952 to work with Captain Christensen. Kelly Pugh was added to Security in 1953 but stayed for only a short time during the next summer. On September 1, 1954, Gerald Matthews was added to the Department. Prior to accepting this position Gerald Matthews had been with the Utah State Department of Public Safety Drivers License Division at Provo. After returning from the service with the army in Korea, Golden Hardy was added to the force, September 15, 1954, on a full-time basis. (Interview with Golden Hardy by Karl Miller.)

In those days, the only officer who had formal police authority was Captain Christensen. Other members of the Department had to make arrests as private persons.

A patrol car was added to the security office in 1954, followed later by a motorcycle. The motorcycle had been found
abandoned on the campus and, being unclaimed, was given to the security office. Golden Hardy used it for general patrol of the campus. Initially, the officers did not have uniforms other than their own army khakis. (Interview with Golden Hardy by Karl Miller.)

Some discussions had arisen in the early days of the security office regarding the need for ambulance service on the campus. It was not until a serious industrial accident occurred during the construction of the Heritage Halls complex that the University decided to establish this service. A 1957 Plymouth station wagon was procured and converted for ambulance service. This was at a time when only a private ambulance firm was servicing the Provo-Orem area. The Fire Department had not yet begun to provide ambulance service. (Interview with Leonard Christensen by Swen C. Nielsen.)

Patrol of the campus was only maintained during the day until 2:00 a.m. Sergeant Hardy, who was the evening patrolman in those days, reports that “I felt like guys were watching me when I left at 2:00 a.m. and were waiting to carry away the whole campus after I left.” (Interview with Golden Hardy by Swen C. Nielsen.)

Leonard E. Christensen

Left to right: Golden Hardy, Gerald Mathews, and Alan Holyoak

Personnel 1951-1957
Campus - 1951-1957

Campus Planning

Campus planning immediately after World War II was extremely difficult because no one could say what the ultimate size of the student body would be. It was the desire of the Board of Trustees “to provide for as many LDS students as want to come.” (Interview with Fred L. Markham by Ephraim Hatch, November 1, 1973, BYU Archives.) Just before the war there were nearly 3,000 students. By the end of the war, to 1951, enrollments had increased to 5,429 with no indication of a leveling off. (BYU Enrollment Resume, Prepared by the Office of Institutional Research, Sept. 1971. BYU Archives.) The 1948 campus master plan was obviously inadequate and a restudy was in order. President Wilkinson obtained authorization from the Board of Trustees to retain consultants William Wurster, Dean of the College of Architecture and Planning, University of California; George H. Smeath, Salt Lake City and County Planning Director and formerly a BYU landscape faculty member; and architect Fred L. Markham of Provo who had done the 1946 and 1948 master plans of the campus. This group of consultants worked with Ben E. Lewis, Associate Treasurer in charge of new buildings, Leland M. Perry, Superintendent of Buildings and Grounds, Wesley P. Lloyd, BYU faculty, and others in the development of a campus master plan covering more land area than the 1948 plan and capable of accommodating more students. (“Brigham Young Alumnus” June 1953.)
The BYU campus as it looked from the air in 1953.
First phase of Heritage Halls nearing completion at top of picture. Smith Fieldhouse is completed, bottom of picture.
The following interview with Fred L. Markham by Ephraim Hatch, November 1, 1973, reveals several pertinent facts about this planning study:

**FM**: Early in his administration, President Wilkinson called a group in together to talk over the plans for the balance of the campus. Prior to this, he had asked me if I would like to expand my staff and do all of the work on the campus. I declined for several reasons.

**MEH**: This was about what year?

**FM**: This was about 1952, soon after he came into office. Out of this meeting several things developed. One was that the Classroom and Home Economics Building would be assigned to my office, that Willard Nelson would handle the Physical Plant Building, that the Fetzer firm was to be retained for a project which I don’t immediately recall. About that time the Brethren thought they would like to have the work done more directly under the Building Department offices in Salt Lake. Soon after this move, Fetzer and Fetzer were commissioned to do the Health Services Building, and I was instructed to move ahead with a Classroom and Home Economics Building. Upon study, it was decided to make two separate buildings. The first one, a classroom building, and the second a home economics building. That resulted in the McKay Classroom Building and the Joseph Smith Family Living Center.

As a part of this development at the time, the Executive Committee of the Board of Trustees working with President Wilkinson asked to bring in some consultant of national prominence. I had gotten acquainted with Bill Wurster a few years before, who was at that time Dean of the School of Architecture and Planning at Berkeley. For a number of years previously he had served as Dean of a comparable school at MIT. I also suggested Walter H. Kilham of New York City who had done a number of schools in the east. Each of them was willing to come, but the board decided on Bill Wurster. We took the plan of 1948 as it had been modified. Mr. Wurster spent two or three days with us criticizing it.

**MEH**: Now, about when would this have been?

**FM**: 1953. With his critique of the 1948 modified plan, we developed a further plan of which a large scale model was made. This is the one shown in the photograph, 1953. Out of this one developed a full horseshoe stadium, and the Physical Education Building south of the Feildhouse. The student center was shown on the west side of the hill, south from where the Alumni Building is located. Wes Lloyd was very critical. He felt that we didn’t have enough parking in connection with it. You will note that next to it was the Fine Arts Building. We had thought the student union and the fine arts building being closely related as they are now, but using the parking lot to the north. It was felt that probably this parking would not be sufficient. At this time, we relocated a larger library in the center of the campus east of the Family Living Center, and by this time we had already developed the Fletcher Engineering Building as shown. The other buildings were not identified. We had left the one large mall that is west of the Eyring Science Center and north of the Joseph Smith Building, but we provided another larger mall running east and west north of the library. That was a little fatter mall than we have at the present time with buildings at each end.

**Campus 1951-1957**

201
MEH: Where was the administration building proposed to be?

FM: The administration building was thought of in this position here, east of the Eyring. Still we don’t have it expanded in size and it looks like the Eyring Science Center. With the large parking lot on the brow of the hill to the south to serve this area. By this time the first group of Heritage Halls was in, so we have that identified.

MEH: Now would you speak a little bit on the roads of the 1953 Wurster plan?

FM: In this case we had moved up near Phillips Lane. We placed the campus road below the hill at that time. Phillips Lane was shown higher there. We brought the road in around the edge of the north parking lot, not far from where it is at the present time. But at that time, instead of carrying it south as it is now, we carried it into the east end of Phillips Lane. This was at the suggestion of the Board of Trustees. They felt that it was unwise to have a road here that might become a through traffic road. The city lived up on the hill were coming into town on Phillips Lane. That became a real problem for us because they wouldn’t let us close off Phillips Lane. So we went through the campus this way and made it tie up with Phillips Lane at that point, and then came south on the west edge of Heritage Halls and out to the east on the south side of Heritage Halls connecting into Ninth East, right by Carson’s Market. Then, the major road on the campus from the east was still coming up through the old Briar Avenue and swinging around into the campus and up the hill where we substantially carry it now. But our road through was to the east of Wymount Village. At this time we did not own some of the properties in the lower part where the Physical Plant Building is at the present time.

MEH: Now, there appears to be a peripheral road clear around the campus. It is just a little longer area within the peripheral road than we now have.

FM: Yes, that’s right. We had kept this road to the west, swinging it around and tying it into the diagonal, not very far from where it is at the present time. Now, at this time we were still using the road coming up form Eighth North and Second East. We had the three roads coming in from downtown Provo.

Bill Wurster made three visits to the campus spending about two days each time, and then we would absorb his ideas and put them into another scheme for him.

MEH: Who buildt this model that we have a photograph of?

FM: That was built by the boys in my office. Much of it was the work of Bruce Dixion and Grant Larsen. (Interview with Fred L. Markham by Ephraim Hatch, November 1, 1973, BYU Archives.)

In June of 1953 with Mr. Wurster present, this model was presented to the Board of Trustees and there approved. (Report of Planning Committee for Brigham Young University Comprehensive Campus Plan, 1957, p. 6)

A ten million dollar expansion program was also announced at this same time. (Brigham Young Alumnus, 1953.)
The following six building projects were located from this 1953 study: David O. McKay Building, Joseph F. Smith Family Living Center, Heritage Halls, McDonald Health Center, Fletcher Engineering Building, and Cluff Plant Science Laboratory (Report of Planning Committee for BYU Comprehensive Campus Plan, 1957, p.6.)
Henry D. Moyle, left, Howard McKean and Harold B. Lee are shown new plans on scale model of Brigham Young University by Dr. Ernest L. Wilkinson, president, during a Saturday meeting” (S.L. Tribune 4 Jan. 1953).

Ten million dollar expansion program announced
These were times of dramatic changes in both academic structure and campus needs. The ink on the 1953 campus master plan was scarcely dry when it became evident that conditions had changed and a restudy was necessary. A seven man ad hoc campus planning committee was appointed to work with a new group of consultants. The developments that prompted the restudy of the campus plan are excerpted from their report and the “Planning Principles and Objectives” they developed are also included below to show their thinking at that time. Members of this committee were as follows: Ben E. Lewis, Director of Auxiliary Service; J. W. Tippetts, Director of Campus Planning; Fred L. Markham, Supervising Architect; Leon Frehner, Landscape Architect; Robert B. Fowler, Associate Architect; I. Dale Despain, Planning Consultant; Leland M. Perry, Superintendent Physical Plant Department:

Subsequent to the approval of the Master Plan in 1953, certain developments have made necessary reconsideration of the plan previously approved. These became evident in late 1955 and resulted in a request to have a second set of consultants review the campus situation. On November 9-12 of that year, Simon Eisner, a Consulting Planner from Los Angeles, California; Carl E. McElvy, an Architect employed by the State of California Working directly upon the campus of the University of Southern California; and Robert J. Evans, Supervising Architect for the University of California as a whole, visited the campus and reviewed all previous work. Their recommendations have been carefully considered in the development of this report. One of the important results of their visit was the pointing of circumstances which made a restudy of the campus plan desirable. Some of the developments which the committee considers important are as follows:

1. In the 1953 study, 12,000 students was established as the ultimate student population on the campus. Since that time it has been recognized that this figure needs to be increased to at least 15,000 students.

2. The effect which the reorganization of the Church School System under a single administrative head might have upon Brigham Young University has become increasingly evident. The determination to establish junior colleges in areas where the demand justifies and the policy to encourage young people in the vicinity of these junior colleges to remain at home, will undoubtedly place more emphasis at Brigham Young University upon upper division and graduate work.

3. The impact of the general upgrading of academic standards is not fully observable at the present time, but it has and will exert a strong influence upon the University program. Equally important are the studies presently under consideration of optimum class size. These, together with possibilities for additional research, which corporation gifts have made possible, will continue to modify the general situation.
4. With the increase in the student body, there has developed a general increase percentage-wise in the number of out-of-state students as compared with students from within the state, and particularly students living at home. This situation is reflected in detail in the reports of the campus housing committee. Of special interest also is the increase in number of percentage in the student body of married students.

5. The decision to organize a new stake at Brigham Young University has had a direct influence upon campus accommodations and is a definite factor in further planning.

6. The evident need for additional land immediately adjacent to the campus which was pointed out during the 1955 visit of Mr. Evans and his group to the campus, together with the rapid community development in those areas, led to the appointment of a special committee to consider land acquisition.

7. The effect which the reorganization of the university structure has had upon distribution of students through the colleges. This is particularly marked in the instance of the new colleges, Physical and Engineering Sciences, Nursing and Family Living. (Report of Planning Committee for Brigham Young University Comprehensive Campus Plan, 1953, pp. 8-10.)

From these seven conditions or developments listed above this 1956 committee formulated the following “Planning Principles and Objectives”:

1. Facility needs have been planned for a student body of 15,000 students. Such facilities include academic, administrative, social, athletic, recreational and living accommodations.

2. All buildings are to be of permanent, rather than temporary construction, with the understanding that flexible and temporary uses be permitted within the buildings. The placement of permanent buildings will involve the moving and eventual elimination of existing temporary buildings.

3. The campus plan anticipates construction in such stages that at each point in the development, the campus will appear complete to the point reached and will function and look well.

4. Buildings have been located with a view to maintaining desirable working relationships between departments.

5. The buildings are arranged in a series of courts, each having an open relationship to those adjoining, so as to provide a freedom of pedestrian movement from one court area to the other. Standing in such a court, it
is anticipated the visitor will be pleasantly surrounded by buildings which frame a complete view, the whole being developed against the backdrop of the mountains.

6. The plan contemplates four major access roads to the campus and one secondary access. The major entrances are from 12th North at the west of the campus from 17th North at the northwest corner of the campus, from 9th East at the east of the campus, and from Seventh, Eighth, and Ninth East at the south of the campus. The secondary access is at Second East and Eight North. These campus entrances connect to the principal highways of Provo City and Utah County.

7. The major roadways are to relate not only to the city and county streets in the immediate vicinity, but likewise are to have a direct connection to the interstate limited access highway proposed by the State.

8. The campus roadways and parking areas have been laid out to accomplish the following objectives:
   a. A perimeter loop road connecting the major entrances will permit movement around the campus offering a minimum of conflict with pedestrian traffic. Where it becomes necessary for student pedestrian traffic to cross the peripheral road, underpasses and overpasses are to be provided. Vehicular traffic across the academic portion of the campus will be eliminated.
   b. Automobile parking areas for students who live on campus will be provided in connection with the housing facilities. Accommodations for students who live off campus and must drive to school, together with the parking accommodations for visitor and business vehicles, will be provided in a series of parking spaces fed directly from the peripheral road. Parking for faculty and staff members will be provided adjacent to buildings insofar as this is possible.

9. In previous studies, accommodations for academic, athletic, and living facilities were conceived as extending northward in three relatively parallel lines of development.

10. Recognizing the necessity for service building areas situated in a position that will permit free access from the outside, and with least interference with on-campus traffic, these service areas have been located adjacent to the peripheral road and in a position that will give ready access to the campus, but not conflict undesirably with academic or housing areas.

11. Recognition is given areas which are geographically separated from the main campus. The specific development of these will constitute individual planning problems.
12. It is anticipated that the lower campus academic buildings will ultimately need to be abandoned. Until that time, however, it is recognized that it will be necessary to use the floor space there available for certain academic departments. It is proposed that the buildings be kept in repair and receive proper care and protection, but that no major expenditures be made.

13. Recognition is given to the fact that a master plan, no matter how conscientiously studied, cannot foresee all of the changes and circumstances to which an institution may be subject in the future. Even the near future is uncertain. It is therefore anticipated that the planning process will be continued by an active unit of the institution’s staff with periodic reviews of the total plans to be undertaken at future dates as the needs become evident. (Report of Planning Committee for Brigham Young University Comprehensive Campus Plan, 1953, pp. 13-15.)

Additional land would be necessary in order to realize the objectives listed above. Actually the acquisition of land had been going on at an accelerated rate from 1950 to 1956. Property purchases in excess of $1,600,000 had been made during that six year period bringing the total main campus area to 433 acres. Farm land was also purchased, some north of the campus and some in Spanish Fork. An 18 acre tract in the river bottom northwest of the main campus was acquired for the development of a Motion Picture Lot. (BYU Physical Plant Facilities Self-Evaluation Survey, Spring 1956, University Archives 92.)

With suggestions from consultants; with information from several studies on academic offerings and student body growth, which they and others had made; and with critically needed land recently acquired, the Committee was ready to finalize a campus master plan that had been evolving since 1953. The high quality of work that went into those studies is attested by the fact that the plan that was developed has successfully guided campus development through 17 years of extensive growth. (Existing Campus Plan, October 1956.)

Campus planning from 1951 to 1955 was done by consultants under the direction of the BYU administration. Various committees were organized to perform specific functions as the need arose.

The physical Plant Committee consisting of Ben E. Lewis, Leland M. Perry and Glenn Enke was organized in 1952 to coordinate problems resulting from campus construction and to make recommendations to Vice President William F. Edwards relative to campus planning. (Interview with Leland M. Perry, by M. Ephraim Hatch, March 14, 1974.)

The Office of Campus Planning and Development was established in September of 1955. This new department functioned independently of the Physical Plant Department which continued on in a maintenance capacity. Personnel of the new Campus Planning and Development Department were as follows: Joyce W. Tippetts, Director; Harold J. Anderson, Administrative Assistant; Paul Rasmussen, Construction Supervisor; Elroy Laws, Building Inspector; Richard Davidson, Furniture Purchaser; Carr Greer, Civil Engineer; Dee Taylor, Architect; John Jensen, Building Inspector; and Arnold Boshard, Building Inspector. (Self-Evaluation Report I, October 1956, and interview with Harold Anderson by Ephraim Hatch, April 3, 1974.)

The Physical Plant Committee was reorganized October 25, 1955, with Joyce Tippetts, Chairman, Ben E. Lewis and Leland Perry. This committee was to work closely with departments who were then contemplating new buildings. A little over a year later, November 21, 1956, this committee was changed around with a new name, Campus Coordinating Committee, with Ben E. Lewis as Chairman. The membership consisted of Leland M. Perry, representing the Physical Plant Department, and Joyce Tippetts representing Campus Planning. (Minutes of meetings from the files of Leland Perry.)
Organizational Chart

Campus 1951-1957
210
Joyce W. Tippetts

William F. Edwards

Glenn Enke and Ben E. Lewis with model of David O. McKay Building

Campus 1951-1957

211
Prior to this, July 27, 1955, a University Planning Board was organized. This group functioned independently of the Coordinating Committee. The following people were on the Planning Board:

Ben E. Lewis, Chairman
Dee R. Taylor, Secretary
Leland M. Perry
Fred Markham
B. F. Larsen
Leon Frehner
Glenn Enke
Dale Despain

Objectives of First Meeting:
1. To familiarize group with planning and basic concepts to date.
2. To identify areas and scope of responsibility and authority.
3. To establish rules and procedures designed to achieve maximum group productivity.

Agenda:
1. Instructions to the Committee – President Edwards, and other members of Presidency as available
   a. Areas of responsibility
   b. Basic organization
   c. Extent and limits of authority
   d. Special instructions
2. Review of Overall Campus Plan and Basic Concepts involved
   a. Maximum student body of 12,000
   b. Buildings to be permanent, but to have flexible use
   c. Buildings and related facilities to be located so as to achieve desirable functional relationships
   d. Access roads to be at four corners of campus. Main entrance to be at 12th North and Canyon Road.
   e. Major roadways to be integrated with city and county streets.
   f. A peripheral road around the campus to be developed.
   g. Roads to serve each building and provide suitable access, but within campus proper to discourage large quantity vehicular traffic.
   h. Large parking for students to be on periphery; for staff and business visitors, smaller parking areas adjacent to buildings.
   i. In general the campus to be developed along three parallel lines of growth: athletic, academic, and housing.
   j. Property not owned but needed by the University for long term to be actively acquired upon satisfactory negotiation.
3. Procedural Items of Business
   a. Organization
   b. What constitutes a quorum
   c. Voting
   d. Time of meeting
   e. Meeting place
4. Specific Problems (for discussion if and as time permits)
   a. New buildings in various planning stages
   b. Development of east-west road at north

A careful reading of this agenda will reveal the concern they had at that time (1955) for things such as property purchase, peripheral road and flexibility of buildings.

An excerpt from the minutes dated August 3, 1955, follows:
Brother Larsen brought up the question of the Fine Arts Building and the desirability of its being located where many people would pass by and would have the privilege of enjoying the displays.

Brother Despain raised the question about the future plans for the Wymount area. Several members expressed their thoughts that this could well serve as a parking area in the long range planning.

Leon Frehner was asked to lead out in a discussion of the overall planning for the area under consideration. He suggested that in his opinion we should strive for informality as the theme as is dictated by the mountains surrounding the campus. By informality he stated he did not necessarily mean a change in the east-west north-south orientation of buildings but, rather, breaking away from rigid formality of design and placement of buildings. He suggested that the new Joseph F. Smith Building would be an excellent example of this. He went on to lead a discussion on the building locations and the desirable relationships that could be attained by slight changes from the tentative locations of buildings from that now indicated on the model.

The Chairman led a discussion on the location of the peripheral road. Fred Markham pointed out alternate routes it could take. Brother Larsen suggested that because of the nature of the Fine Arts Building it would not be desirable to have a road between it and the parking lot, thus causing a cross traffic between cars and people.

The group then summarized its discussions and unanimously (7) voted to recommend to the University Presidency the following:
1. That the four major buildings be located as follows:
   a. Administration: In the same area as shown on the existing model.
   b. Commons: In the same general area where the Fine Arts Building is shown on the existing model, with the thought that the building could move down into the campus a bit more.
   c. Library: In the same general area as shown on the existing model, but somewhat to the east to provide adequate clearance from the Family Life Building and the development of the areas to the northeast.
   d. Fine Arts: In the same area where the Commons Building is shown on the existing model.

Campus 1951-1957

214
2. That a temporary road to serve the needs of the area be located as shown on the map presented by Dale Despain, with these added stipulations:
   a. Care would be taken to eliminate taking out trees. This can be done by slight variance of road location.
   b. The northwest corner is to have a curve with a larger radius.
   c. The road is to be considered temporary in nature both as to construction and location.
3. That an engineering study be made on the development of the peripheral road on the northwest side down over the hill; this is to show the tie in to the existing main road, the tie in to the Men’s Residence Halls, and the treatment along the brow of the hill. (Minutes of meetings from the files of Leland M. Perry.)

These minutes are evidence of the awareness of committee members to the many planning problems of that time. As one studies the campus after 19 years of construction the wisdom of their recommendations and decisions is apparent. Not all of the ideas presented were accepted, however. Leon Frehner’s opinion that, “we should strive for informality as the theme as is dictated by the mountains surrounding the campus.” Was not adopted except in a few isolated placed. Some may say that this was unfortunate.

A very short-lived “Community-BYU Campus Development Committee” was organized November 27, 1956. Its effectiveness was limited due to the large number of people involved and wide divergence of interests these people served. The composition of this committee is included in the following memorandum from Ben E. Lewis dated November 26, 1956:

FROM: Ben E. Lewis To: William F. Edwards November 26, 1956
Leland Perry
Joyce Tippetts
Ed Butterworth

Listed below are the names of people invited to attend the dinner to be held Tuesday evening at 6:00 p.m., November 27, in connection with future planning for the University. These people have been invited to come to the Faculty Room at the Joseph Smith Building. The plan is to spend the first thirty or forty minutes presenting to the group future development plans, immediately following which dinner will be served, during which time informal discussion can be carried on. Present indications are that there will be approximately twenty-three people in attendance.

Members of City Council
Harold Van Wagenen
Marion Hinckley
Frank Killpack
George Collard
Roy Passey
Stella Oaks
Phillip Perilman

Campus 1951-1957
215
By April 15, 1957, campus planning for a 15,000 studentbody had progressed to the point of making some final decisions. A memorandum from Vice President William F. Edwards states this problem and calls a number of people to meet for this purpose.

From: Wm. F. Edwards
To: Leland M. Perry
Subject: Campus Planning
April 15, 1957

We have reached the point in the development of campus plans where it becomes necessary to try to finalize the location of buildings projected for the future. We are calling a meeting for Monday, April 15th, at 3:00 p.m. in the conference room of the Health Center to discuss this subject with you and get your comments and suggestions. We are asking you because of the interest you have in the planning of building locations and because of the contributions we feel you can make.

If for any reason you are not able to be in attendance, would you please notify my office?

cc: Pres. Harvey L. Taylor
Leon Frehner
Robert Fowler
B.F. Larsen
Leland Perry
Milton F. Hartvigsen
Bliss H. Crandall
Kiefer Sauls
Wesley P. Lloyd
Gerrit DeJong
Harold Hansen
John R. Halliday
Conam Mathews
Lyman Tyler
Floyd Taylor
Dale Despain

Campus 1951-1957
216
Photograph was taken just before McDonald Health Center was constructed - 1954
Campus 1951-1957
217
Aerial view of BYU campus from the south - 1954
Construction is just beginning on the Cluff Building.

Campus 1951-1957
218
Joseph Fielding Smith Family Living Center is under construction in center of photograph.
Note lighting on football field.

Campus 1951-1957
219
Buildings - 1951-1957

Rifle Range (B34) Engineering Analysis Center - 1952

The ROTC unit establishment on the Brigham Young University campus needed a Rifle Range for part of their activities. In 1952, the Physical Plant Department constructed a 2,430 square foot lava block building east of the Fletcher Engineering Building (Space Utilization Office, Inventory of Buildings). It had a steel bulk-head and target resetting equipment at the target end, and an office and supply room at the shooting end. This building was remodeled in 1956 and again in 1967. In 1969, as the need for shooting practice on campus no longer existed, a major remodeling took place enlarging the building to 9,190 square feet on two floors. Over the ensuing years, this facility has provided space for various academic programs including engineering, language research, and Center for Instructional Design.

Physical Plant Motor Pool - Mechanical Engineering Laboratory (B21) - 1952

In 1952, a second metal Quonset building measuring 40 feet by 120 feet with a concrete floor was constructed at a site south of the first one, which is designated B-32. This building served as a garage for the enlarged motor pool until the new Physical Plant Building was constructed in 1962. Space in B-32, which formerly housed the motor pool, was used by the Physical Plant Sheet Metal Shop and the Grounds Department. In 1962, when the motor pool moved from B-21, this building was remodeled and converted to a Mechanical Engineering Laboratory (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957).
Herald R. Clark Building - 1952

The Herald R. Clark Building with 32,065 gross square feet of floor space was built in 1952 to house the bookstore and various University functions (Space Utilization Office, Inventory of Buildings). In 1964, the Bookstore function moved into the Wilkinson Center. The Herald R. Clark Building was remodeled extensively, including air conditioning of the building and the construction of offices and workrooms in the area of the former bookstore. Some of the offices of the Division of Continuing Education and some of the offices of the Educational Media Services are now (1972) located in this building. After major remodeling in 1984 and 1985, the Clark Building became the home of the Kennedy Center for International Studies and general university classrooms.

Golden buff brick was used for the exterior of the “L” shaped building constructed with two floor levels in a central location on campus south of the Clark Library. The name Herald R. Clark is now used to designate this structure out of gratitude to a member of the College of Business faculty who for many years was a moving force in raising money for various campus projects.
Television Studio - 1953

A temporary sound stage of 2,392 square feet was constructed north of the Fletcher Building for the Motion Picture Department in 1953 (Space Utilization Office, Inventory of Buildings). This steel framed structure, with plywood walls, was well insulated to keep out unwanted sound during the filming of motion pictures. It did not succeed in this respect, and it was found necessary to do work involving sound recording after midnight. Nevertheless, this building was the stage for many early productions until 1958 when the present motion picture studio was constructed in Carterville, northwest of Provo. It was moved from its first location north of the Fletcher Building to a site at the north end of Wymount Village before construction on the Wilkinson Center began. From 1958 to 1964, this building was used for television production work which was just commencing on campus. In 1966, this structure was sold and removed from the campus when the space it occupied east of the Wilkinson Center was needed for parking.
Heritage Halls - 1953

In the early 1950’s a plan was approved to construct student residence apartments. These apartments, consisting of three bedrooms, a living room, and a kitchen, were intended to provide a homelike atmosphere for women students residing away from home. Sixteen two-story buildings with ten apartments in each building were constructed at the north edge of campus on 900 East Street. There was a head resident apartment included for each two buildings.

The program was very successful, and it was decided to construct eight more buildings each with three floors and 12 apartments, immediately north of the first project. Each apartment was designed for six women and each of the eight buildings was provided with an apartment for a head resident couple. Plans prepared by Fred L. Markham were used, and Christiansen Brothers of Salt Lake City completed construction in July of 1956. Gross floor area for all 24 buildings is 382,024 square feet.

A new central building was added to the complex in 1983 which contained administrative offices, multi-purpose rooms and study areas for the students.
Heritage Halls construction - 1952

Completed Heritage Halls building - 1958

Completed Heritage Halls buildings - 1956

Buildings 1951-1957

225
Harvey Fletcher Engineering Laboratory Building - 1953

Four departments of engineering were commenced in 1952. An Engineering Laboratory Building was subsequently authorized. Architect Lawrence D. Olpin of Ogden, Utah, was engaged to prepare plans for the construction of an engineering laboratory building to be located east of the Herald R. Clark Building. The Tolboe and Harlin Construction Company of Salt Lake City was awarded the contract. This “H” shaped building of 27,000 square feet was built with one floor at ground level with a ceiling height sufficient for a second floor (Space Utilization Office, Inventory of Buildings). The first construction was commenced in July and completed in October of 1953.

A second floor was built in three of the four wings from plans prepared by the Church Building Department by the Barker Construction Company in 1954. This added 12,018 additional square feet to the building.

September of 1964 saw the completion of a third major addition in the Chemical Engineering wing which had not previously been remodeled, bringing the gross floor area of this structure to 43,244 square feet.

Several smaller remodeling jobs have been completed in this building making it more suitable for the specialized work that is conducted there. Departments that are now housed and have been since its construction are Mechanical, Civil, Electrical, and Chemical Engineering.
Animal Sciences Laboratories (North Canyon Road) - 1954

Poultry Laboratory

Dr. Laurence Morris of the Animal Science Department established a Poultry Laboratory in a farm that BYU purchased at 180 East 1325 North in 1954. Later in 1956 this project was moved to its present location at 2230 North, west of the Canyon Road. Seymour Mikkelsen transferred from the Animal Science Laboratory to the Poultry Laboratory as manager under Dr. Morris. Students majoring in Animal Science were employed at this farm and assisted in the production of chicken products. A number of war surplus buildings including the Butler Huts that made up the Speech Center were moved onto this farm where they served as laying houses, laboratories, and shop buildings. The Cowley and the Abegg Houses were moved to this farm to provide homes for students employed part-time in this project. Several larger experimental laboratories were built, along with a sales room, with equipment for washing and candling eggs. The Poultry Laboratory project grew rapidly under the competent leadership of Dr. Laurence Morris. At the present time there are two homes, five laying houses, four brooder houses, two storage buildings, one experimental laboratory, one sales room, and one workshop on this property. As many as 14,600 hens have been housed at one time on this farm (Construction Record, Physical Plant Planning Office. Space Utilization Office, Inventory of Buildings. History of Animal Husbandry, BYU, by C.Y. Cannon, Professor Emeritus, Animal Sciences, personal interview by Karl A. Miller. Seymour Mikkelsen, foreman at the farm from June 1, 1956, to February 1, 1966).
David O. McKay Building - 1954

Construction was completed in November 1954 on a classroom and office building of 68,576 square feet located west of the Eyring Science Center (Space Utilization Office, Inventory of Buildings). This building with two floors above ground and one half below was designed by Fred L. Markham and constructed by Christensen Brothers of Salt Lake City. Air conditioning has been added and several minor remodelings have been done in this building over the years to provide laboratory space for the College of Education in the basement and language laboratories in other parts of the building. At the present time, it is occupied primarily by the College of Education and Humanities.

An addition of approximately 11,000 square feet was constructed in 1978 and the entire building was completely renovated in phases beginning in 2000 and ending in 2003 with a rededication by Thomas S. Monson. The entire building is used for the needs of the McKay School of Education.
David O. McKay Building construction from the air

David O. McKay Building foundation construction

David O. McKay Building under construction - 1954

David O. McKay Building steel frame
Benjamin Cluff Plant Science Laboratory - 1955

The Cluff Plant Science Laboratory became a reality in 1955 when construction was completed on a 12,645 square foot building, including two greenhouses (Space Utilization Office, Inventory of Buildings). This facility, named after one of the early presidents of the University, is located on 800 North Street between 5th and 6th East. The first phase was built by Lynn Groneman and Company from plans prepared by Arnold H. Ehlers. During the following years, several additions were made to the greenhouses, including a head house and one additional greenhouse. In 1967, the building was extended to the west with a substantial increase in floor area. Eric Sandstrom was the architect for this addition with Benson and Ralphs, Inc. as the contractor. At the present time, the Benjamin Cluff Plant Science Laboratory includes a total of 32,943 gross square feet, half of which is in greenhouses and the other half on two floors of the golden buff brick laboratory building (Space Utilization Office, Inventory of Buildings).
Howard S. McDonald Health Center - 1955

Brigham Young University has provided students with medical assistance for many years. This function has been housed in numerous places including the lower campus. A new building specifically for student health services located on the brow of the hill east of the Joseph Smith Building was completed in 1955. Arnold Ehlers of the Church Building Committee prepared plans for this building, which was constructed by Lynn Groneman and Company of Provo, Utah. Extra space was provided in this two-story building at the time of its construction, which housed the ROTC program for many years. At one time complete clinical and hospital care was provided to the students. At the present time, outpatient clinical care only is provided. All cases requiring hospitalization are referred to Utah Valley LDS hospital. With this change and with the extra space in the building when the ROTC moved into a new building in 1969, it was then possible to house all health service functions for the 25,000 student body in this one structure. In 1968 an elevator was installed in the space provided, followed by various remodeling to improve and adapt the building for more efficient and up-to-date service.

A new student health center was built and occupied in 1999 and this building was remodeled to accommodate the Office of Informational Technology. The name was also changed at that time to McDonald Building.
Faculty Office Building (Stadium Restrooms) - 1955

Two buildings to serve as restrooms and ticket offices were constructed at the top entrance to the old stadium during the summer of 1955. Plans were prepared by the Church Architects Office which included the construction of ticket offices and paving of the area. (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957.) These two buildings totaled 1,848 square feet. (Inventory of Buildings, Space Utilization Office.) This construction project was done by Physical Plant personnel.

After the new stadium on 1650 North Street was completed in 1964, this old stadium had little use for the extensive restroom facilities provided in these two buildings. They were subsequently remodeled and used as office space for teaching assistants. Several names were affectionately attached to this facility. Most outstanding of which was “Flushing Heights.”

Later in 1968, plans were prepared by the architectural firm of Young and Fowler, Salt Lake City, to construct faculty offices in the area between these two restroom buildings. A very functional facility developed on this narrow strip of land which utilized the existing restroom structures. The building has an interesting floor plan, making it possible for each room to have an outside window. Exterior walls are brick, with dry wall interior construction. The entire building of 16,061 square feet is on one floor and is now air-conditioned. (Inventory of Buildings, Space Utilization Office.) The building houses primarily the Economics Department.
B1 and B23 - 1954

In 1954 a temporary building of approximately 4,450 square feet on one floor was acquired from Ft. Douglas (Space Utilization Office, Inventory of Buildings). Part of this building became the Temporary Office Building, B-1, situated east of the Speech Center and another portion was moved to the south side of the Physical Plant Stockade, where it was converted into space for the Upholstery Shop, the Paint Shop, and the Office Equipment Repair Shop, B-23 (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957).

B17 (Physical Plant Sheet Metal Shop) - 1956
(Engineering Analysis Maintenance)

In 1956 a pre-fabricated metal building of 1,222 square feet was constructed on a site west of B-21. This building served as a Physical Plant sheet metal shop until the construction of the permanent Physical Plant Building in 1962. The sheet metal shop moved out of B-32. After the sheet metal shop function moved from B-17, the building was converted to an Engineering Analysis Maintenance lab and has functioned in this capacity to the present time (1972). (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957.) This building continued to serve academic needs for the College of Engineering and Technology until it was razed in 1994.

B33 (Shops Washroom) - 1956

A small lava block structure of 272 square feet was constructed in 1956 to provide restroom facilities for Physical Plant shop personnel. This structure was built on the south end of B-34, the Rifle Range. It served this purpose for many years until 1969 when the space was converted to an air-conditioning mechanical equipment room for the Engineering Analysis Center in B-34. (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957).
B24 (Physical Plant Equipment Shed) - 1956

In 1956 a metal building measuring 28 feet by 120 feet with one open side was purchased and installed south of the motor pool building, B-21. This building was intended to be used as a shelter for automotive equipment; but owing to the need of suitable shelter for the storage of materials, it was used for general storage as well as some automotive equipment. In 1966 a high pressure research laboratory building (B-41) was constructed on this site. The metal storage shed B-24 was relocated to the Physical Plant Stockade on North Canyon Road. (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957.)

Old Stadium Press Box - 1957

A frame press box of 810 square feet (Space Utilization Office, Inventory of Buildings) was constructed on top of the Old Stadium in 1957. This building was designed by the Church Architects Office in Salt Lake City and constructed by personnel of the Physical Plant Department. Space was provided for press reporters, radio broadcasters, and spotters for both home and visiting teams. This structure is still standing, overlooking a steep landscaped hillside as the stadium has now been removed. It is presently used for research space and general storage. (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957.)
Joseph F. Smith Family Living Center - 1956

A building was designed and constructed on the BYU campus in 1957 to provide facilities for the newly organized College of Family Living. This building of 105,565 gross square feet (Space Utilization Office, Inventory of Buildings) is devoted primarily to classrooms, offices, and laboratories for sewing, foods, nursing, and related fields. In addition to these academic functions, it has provided space for the campus telephone exchange since its completion. Only minor remodeling has been done to complete unfinished areas in the basement and to adapt various laboratories to meet changing methods and new equipment.

Plans were prepared by Fred L. Markham of Provo, Utah. The building contract was awarded to Christensen Brothers of Salt Lake City. Joyce W. Tippetts acted as Owner’s Representative, with Paul Rasmussen and Elroy Laws as inspectors.

After serving the campus for many years, it was decided that this building needed to be replaced. It was razed in 2002 in preparation for the new Joseph F. Smith Building.
Wyview Village - 1957

The United States government surplused 150 small frame houses at Mountain Home Air Base in Idaho. BYU acquired these homes and had them transported and set up on a site on the north edge of the campus, northeast of the present Marriott Center. These homes were one, two and three bedroom size, and provided living quarters for many families between the years 1957 and 1970. The total floor space area of all the homes was 78,520 square feet. (Inventory of Buildings, Space Utilization Office.) The construction of the Marriott Center with associated parking lots required the removal of these homes; and they were sold in groups and individually, on the condition that they would not be set up in Utah County.
The initial and major portion of the Spanish Fork Farm comprising approximately 420 acres was purchased in 1957 at a project cost of $285,000. Of this amount President Ernest L. Wilkinson Donated $75,000 which was the down payment; the balance was obtained through a loan from the Church to be repaid with interest from the sale of milk, fruit and produce. Since the original purchase of the farms, other adjoining areas have been added to enlarge the project to 639 acres.

This agricultural facility has been built up in many ways over the years. Farm buildings, houses and shelters totaling over 90,000 square feet in floor area have been constructed. Animal herds have grown in number to 700 cows, 100 beef, 200 pigs, and 125 sheep.

Over 400 students are involved in field trip programs at the farm each year and 150 or more additional students will have several major laboratory projects at the farm each semester. Work study internships are providing in-house experience and training to 8-10 students each year and employment opportunities to many more during seasonal work.

Agricultural faculty members are involved in their own research and teaching projects as well as in advisory capacities to the major operational programs. Correlation of teaching, research and operational needs bring departmental specialization together to produce excellent teaching experiences for students at Brigham Young University. (Interview with Max Wallentine, Assistant Dean, College of Biological and Agricultural Sciences, by Ephraim Hatch, January 28, 1974.)

The University turned the farm operations over to the Farm Management Corporation in 2000 but took it back again in 2004. As a result of the changes in the college most of the buildings were razed in 2004.

Spanish Fork Farm - 1957

Spanish Fork Farm

Spanish Fork Farm

Buildings 1951-1957

237
In 1956 a major change was made in the campus heating system. A partial conversion was made from steam to high temperature water which is a system using water heated to approximately 400 degrees F. under approximately 250 pounds pressure and circulated to various buildings on campus by pumps located in the Central Heating Plant. Water heated to 400 degrees would ordinarily convert to steam. However, under pressure of heating buildings at a considerable distance from the boilers. This conversion was engineered by American Hydrotherm Corporation, Paul L. Geiringer, Engineer, of New York City. Ralph F. Prescott was the resident engineer for this changeover. He later joined the BYU staff and supervised the operation of the Central Heating Plant until his retirement in 1969.

This project not only included major changes in the heating plant, but also in the piping to all major buildings. All distribution lines were dismantled and reinstalled with heavier supports, expansion joints and with additional insulation. In some cases, additional lines were installed to increase capacity. Underground vaults for heat exchange equipment were constructed adjacent several buildings. At this same time (1956) two 50 million Btu boilers were installed in the Central Heating Plant.

Left: Paul L. Geiringer, Jack Smythe, William Day, and Leland M. Perry

High Temperature water piping in utility tunnels
Electrical, Water, Sewer and Gas

A number of projects involving the extension of utilities were completed during the six year period from 1951 to 1957. Following are three typical electrical projects.

Project No. 229: Central Switching and Metering House ($3,470)

This project provided for the establishment of central electric metering and switching equipment in connection with a unit substation which had been installed by Provo City near the Central Heating Plant. The work consisted of the construction of a metal building with concrete floor to house the metering and switching equipment, the installation of a chain link fence to surround the transformer and meter house, and the removal of high voltage lines in the vicinity of the Science Building.
Project No. 115: High Voltage Electric Distribution Lines

This project covered the installation of high voltage feeder lines in the ducts already provided in the heat tunnel to furnish power from the sub-station located near the Central Heating Plant to the distribution point in the Eyring Science Center and in the vault at the north side of the Grant Library Building.

Project No. 281: Electrical Circuits, Education Building ($1,058)

Under this project the Department installed additional feeder circuits for the Education Building.

A project involving water, sewer and gas is briefly described as follows:

Project No. 213: Extension of Utilities ($64,270)

This project covered miscellaneous extensions to the utility services on campus, consisting of a new 6-inch water line to serve the David O. McKay Building, a 4-inch water line to serve the new Student Health Center, an 8-inch water line extending to the north by the Family Living Center, and a 2-inch water line to serve the Stadium Restrooms. It also included the construction of heat lines to serve the Student Health Center and Botanical Laboratories, the construction of a
new sewer line along Canyon Road, north of 1200 North, to serve the new Men’s Dormitories, and the installation of a new electric power service to the Family Living Center and to the Stadium Restrooms. The engineering and much of the construction was performed by the Department. (Consolidation Report of the Physical Plant Department, BYU, 1947 through 1957, pp. 42-54.)

Authorization to commence drilling a well for general use of Brigham young University was received from the State of Utah on October 13, 1955. A well was drilled in the spring of 1956 to a depth of 581 feet. Sixteen-inch pipe extended from the top down 221 deep and 20-inch pipe continued for 360 more feet. This well is capable of delivering five cubic feet per minute. It is located at the southeast corner of the Helaman Halls housing project. This water has not been used for various reasons since the well was completed. The permit, however, has been renewed and it is expected that it will eventually be utilized in conjunction with Provo City.

Telephone

Both the academic and the housing telephone switchboards remained in the Eyring Science Center from 1951 to 1957. Each were operated as a separate system, administrative offices on dial and housing on manual. (Consolidated Report of the Physical Plant Department, BYU, 1947 through 1957.)

In January of 1957 construction was completed on a $220,000 telephone system with switchboards and dial equipment in the basement of the Smith Family Living Center. At that time it was the largest private branch exchange in the Mountain States territory. Westinghouse men spent 10,000 hours completing this installation which had 200 trunks to the telephone central office in downtown Provo and a complete dial system with 2,500 numbers. With this new installation it was possible to dial directly to any other telephone in the system or in Provo, Springville or Orem. To assist persons in placing and receiving long distance calls, a six position switchboard, requiring 25 operators, was included. (The Monitor, M.T. & T. April 1957, p. 12.)

Two-way Radio

On December 21, 1954, a two-way radio installation was completed. It consisted of one base station in the Physical Plant warehouse office, six units in maintenance trucks and four portable units. This system operated successfully through the following four years saving many hours of time and increasing the efficiency of the Department.
Telephone installation in Smith Family Living Center - 1957

Smith Family Living Center - Telephone employee at left, Leland Perry, right

Utilities 1951-1957

242