Chapter 8

1974

A Pictorial Survey of the Physical Plant Department

Brewster Physical Plant Building - 1974
Introduction

The Church of Jesus Christ of Latter-day Saints supports a worldwide educational system. At the present time (1974), approximately 47,000 students are enrolled on 75 campuses throughout the United States, Mexico, South America, and the South Pacific. The Department of Physical Plant at Brigham Young University administers facilities planning, construction, and maintenance for all of these schools through the Church Commissioner of Education Office in Salt Lake City, Utah.

A history of one of these 75 schools, the BYU, was recently compiled in preparations for its centennial celebration in 1975. Factual information about the Physical Plant Department was difficult to find and document. As a result of this experience, approval has been given to maintain a brief historical record of major events involving personnel of the Physical Plant Department and the BYU campus.

This 1974 survey describes the BYU campus and the Physical Plant Department in word and photograph as the beginning of a continuing historical record. Other Church schools are referred to briefly, with a few representative campus photographs.

Photographs and other materials contained in this survey were made and compiled by Ephraim Hatch and Pauline Ricker, his secretary.
LDS Church Schools - 1974

It is difficult to fully appreciate the number and the size of LDS Church schools because many of them are located in distant and remote areas. The following tabulation will give one an idea of the many types of schools there are in the Church system, their location, and the number of students being served in each. A few photographic examples are also included to further illustrate what the Church has and is doing for its members.

<table>
<thead>
<tr>
<th>NAME OF SCHOOL</th>
<th>ACADEMIC OFFERING</th>
<th># OF STUDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHILE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four elementary schools</td>
<td>Elementary</td>
<td>2,000</td>
</tr>
<tr>
<td>One secondary school</td>
<td>Secondary</td>
<td>500</td>
</tr>
<tr>
<td>FIJI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One elementary school</td>
<td>Elementary</td>
<td>110</td>
</tr>
<tr>
<td>MEXICO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thirty-five elementary schools</td>
<td>Elementary</td>
<td>6,129</td>
</tr>
<tr>
<td>Three secondary schools</td>
<td>Secondary</td>
<td>1,528</td>
</tr>
<tr>
<td>One prep school</td>
<td>Pre-college</td>
<td></td>
</tr>
<tr>
<td>One normal school</td>
<td>Teacher Training</td>
<td>679</td>
</tr>
<tr>
<td>NEW ZEALAND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church College of New Zealand</td>
<td>Secondary</td>
<td>521</td>
</tr>
<tr>
<td>TAHITI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Papeete Elementary</td>
<td>Elementary</td>
<td>508</td>
</tr>
<tr>
<td>Papeete Post Elementary</td>
<td>Post Elementary</td>
<td>37</td>
</tr>
<tr>
<td>TONGA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ten middle schools</td>
<td>Middle School</td>
<td>1,000</td>
</tr>
<tr>
<td>Liahona High School</td>
<td>Secondary</td>
<td>1,250</td>
</tr>
<tr>
<td>NAME OF SCHOOL</td>
<td>ACADEMIC OFFERING</td>
<td># OF STUDENTS</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>UNITED STATES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brigham Young University,</td>
<td>Two Year</td>
<td>25,000</td>
</tr>
<tr>
<td>Provo, Utah</td>
<td>Four Year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td></td>
</tr>
<tr>
<td>Brigham Young University,</td>
<td>Four Year</td>
<td>900</td>
</tr>
<tr>
<td>Hawaii Campus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDS Business College,</td>
<td>Business degrees of varying time periods</td>
<td>650 - day</td>
</tr>
<tr>
<td>Salt Lake City, Utah</td>
<td></td>
<td>325 - night</td>
</tr>
<tr>
<td>Ricks College</td>
<td>Two Year</td>
<td>5,532</td>
</tr>
<tr>
<td>Rexburg, Idaho</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WESTERN SAMOA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ten elementary schools</td>
<td>Elementary</td>
<td>1,402</td>
</tr>
<tr>
<td>One secondary school</td>
<td>Secondary</td>
<td>710</td>
</tr>
</tbody>
</table>

401
Vina Del Mar, Chile

Elementary through secondary - Deseret School, Chile

Juarez Academy - Colonial Juarez, Mexico

Gymnasium at Juarez Academy - Colonial Juarez, Mexico
LDS Business College - Salt Lake City, Utah

Ricks College - Rexburg, Idaho

Church College - Western Samoa

Elementary School - Western Samoa
Brigham Young University Campus - 1974
Brigham Young University - 1974

Brigham Young University is a coeducational institution of higher learning established for the purpose of promoting a closer union between the restored gospel and all branches of learning. In addition to high standards of scholarship, the University has always fostered the development of religious faith, high moral character, and responsible citizenship. Sponsored by The Church of Jesus Christ of Latter-Day Saints (Mormon), it offers the student a unique blend of spiritual and secular learning.

Situated just 45 miles south of historic Salt Lake City in beautiful Utah Valley, the 536-acre Provo campus is posed against the magnificent backdrop of the Wasatch Mountains. With 25,000 students from all 50 states and 69 foreign countries, Brigham Young University is the nation’s largest privately operated university. Its more than 1,000 full-time faculty members hold degrees from universities throughout the United States and several foreign countries. Sixty-two percent hold doctor’s degrees. Instruction is offered in 150 subject areas by the University’s 14 colleges and graduate schools.

Students of any race, color, creed, or national origin are accepted for admission to Brigham Young University provided they meet the University’s academic requirements and their personal behavior conforms to the standards of The Church of Jesus Christ of Latter-Day Saints. High standards of honor, integrity, and morality; graciousness in personal behavior; application of Christian ideals in everyday living; and abstinence from tobacco, alcohol, and harmful drugs are required of every student. (BYU Catalog 1973-74)

The Brigham Young University Campus - 1974

The Brigham Young University campus includes 386 buildings with a total of 5,489,571 gross square feet of floor space. Of these 386 buildings, 233 are devoted to housing functions, 51 to administrative and auxiliary functions, and 83 serve academic needs. The remaining 19 are non-institutional buildings.

All major campus buildings are accessible from a peripheral road. Parking is provided on campus for 2,320 faculty and staff automobiles and 9,804 student automobiles.

The major academic, administrative, and housing buildings located on the main campus are heated and cooled by a central heating and chilled water plant. Coal is used to heat water to a temperature of 350 degrees Fahrenheit under pressure to prevent it from converting to steam. This high temperature water is pumped through an underground piping system to all
major buildings. About half of the underground piping system is in walk-in tunnels. The other half is in insulated conduits. Some remote and some temporary buildings are heated by independent gas fired systems.

Electrical power is purchased from Provo City and distributed to the campus through three electrical substations. This power is conducted to each campus building through electrical cables in buried conduits.

All academic buildings are connected with low voltage electrical cabling providing synchronized clock and class bell service. All major buildings are included in an electrical fire and burglar alarm circuit with a reporting station at the campus Security Office.

Telephone service is provided to the entire campus by the Mountain States Telephone Company. All telephone equipment, cables, etc. are provided for the Brigham Young University on a rental basis. The conduit for telephone cables and space for telephone equipment is owned by the University.

Natural gas is used in some laboratories of academic buildings and is used for heating in many housing and peripheral buildings. Natural gas is supplied by the Mountain Fuel Supply Company to meters at several campus locations. Gas is piped underground from these meters to individual buildings and laboratories through a University owned piping system.

Water is purchased from Provo City. It is distributed through a University owned piping system. The campus is protected with a fire hydrant system. All recently constructed buildings are sprinklered and otherwise comply with the fire protection requirements of the Uniform Building Code. The main campus is completely landscaped. Lawns and plant areas are watered with automatic sprinkling systems.

A sanitary sewer system is University owned to the perimeter of the campus where the various lines connect into the Provo City sewage system. A storm sewage system drains campus roads and parking lots into nearby Provo City storm sewer lines and canals.

Trash and garbage removal is the responsibility of the Physical Plant Department. Some remote buildings are serviced by Provo City.
BUILDING INVENTORY AND SPACE Recapitulation
BRIGHAM YOUNG UNIVERSITY
PROVO, UTAH
AS OF SEPTEMBER 1974

Buildings are listed in alphabetical order according to common usage of names. Some cross indexing is provided.

Gross square feet is taken from either actual measurements or from architectural drawings; it is the sum of the floor areas within the outside faces of exterior walls for all stories.

The abbreviation is used only for mail services, directories, class scheduling, and intra-office reference.

"Year" is the year of occupancy for new buildings or the year of acquisition for those not constructed under BYU contract. Two or more entries under "year" indicates major additions to the structure.

Buildings at Aspen Grove and Spanish Fork Farm are not included nor are buildings/houses not immediately associated with campus agencies and activities.

COMPARISON:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Buildings</td>
<td>379</td>
<td>382</td>
<td>386</td>
</tr>
<tr>
<td>Permanent</td>
<td>293</td>
<td>298</td>
<td>297</td>
</tr>
<tr>
<td>Temporary</td>
<td>86</td>
<td>84</td>
<td>89</td>
</tr>
<tr>
<td>Square Footage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent</td>
<td>5,257,045</td>
<td>5,475,983</td>
<td>5,489,571</td>
</tr>
<tr>
<td>Temporary</td>
<td>4,965,264</td>
<td>5,182,204</td>
<td>5,183,335</td>
</tr>
<tr>
<td></td>
<td>291,781</td>
<td>293,779</td>
<td>306,236</td>
</tr>
</tbody>
</table>

This information is not for release to non-BYU agencies without specific approval from the Administration.

(Issued by Office of Space Utilization)
September 1974
### BYU Building Floor Areas -- Summary as of September 1974

<table>
<thead>
<tr>
<th>Existing Building:</th>
<th>TOTAL</th>
<th>PERMANENT</th>
<th>TEMPORARY</th>
<th>BUILDINGS</th>
<th>PERMANENT</th>
<th>TEMPORARY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>83</td>
<td>40</td>
<td>43</td>
<td>1,238,273</td>
<td>226,378</td>
<td>2,664,651</td>
<td></td>
</tr>
<tr>
<td>Administrative/Auxiliary</td>
<td>51</td>
<td>30</td>
<td>21</td>
<td>1,123,188</td>
<td>33,784</td>
<td>1,156,972</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>233</td>
<td>222</td>
<td>11</td>
<td>1,516,548</td>
<td>20,301</td>
<td>1,536,849</td>
<td></td>
</tr>
<tr>
<td>Non-Institutional</td>
<td>19</td>
<td>5</td>
<td>14</td>
<td>105,326</td>
<td>25,773</td>
<td>131,099</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>386</td>
<td>297</td>
<td>89</td>
<td>5,183,335</td>
<td>306,235</td>
<td>5,489,571</td>
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</tr>
</tbody>
</table>

### Buildings Under Construction:

<table>
<thead>
<tr>
<th>Buildings Under Construction:</th>
<th>BUILDINGS</th>
<th>GROSS SQUARE FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(J. Reuben Clark Law Building</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>April 1975)</td>
<td></td>
<td>102,442</td>
</tr>
<tr>
<td>Administrative/Auxiliary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Bookstore Addition</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>1975)</td>
<td></td>
<td>46,592</td>
</tr>
<tr>
<td>Non-Institutional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Language Training Mission</td>
<td>7</td>
<td>--</td>
</tr>
<tr>
<td>1976)</td>
<td>9</td>
<td>274,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>9</td>
<td>423,034</td>
</tr>
</tbody>
</table>

### Buildings in Planning:

<table>
<thead>
<tr>
<th>Buildings in Planning:</th>
<th>BUILDINGS</th>
<th>GROSS SQUARE FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Library Addition 1976</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>)</td>
<td></td>
<td>225,000</td>
</tr>
<tr>
<td>Administrative/Auxiliary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Motion Picture Addition</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>1975)</td>
<td>2</td>
<td>8,350</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2</td>
<td>233,350</td>
</tr>
</tbody>
</table>

### PROJECTED TOTAL:

<table>
<thead>
<tr>
<th>PROJECTED TOTAL:</th>
<th>BUILDINGS</th>
<th>GROSS SQUARE FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>397</td>
<td>5,839,719</td>
</tr>
<tr>
<td></td>
<td>308</td>
<td>306,236</td>
</tr>
<tr>
<td></td>
<td>89</td>
<td>5,145,955</td>
</tr>
</tbody>
</table>
## Net Investment in Physical Plant

<table>
<thead>
<tr>
<th></th>
<th>Beginning Balance</th>
<th>Additions (Net)</th>
<th>Ending Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendar year ended Dec. 31, 1954</td>
<td>$17,520,250.60</td>
<td>$8,544,262.27</td>
<td>$26,064,512.33</td>
</tr>
<tr>
<td>Calendar year ended Dec. 31, 1958</td>
<td>$26,064,512.33</td>
<td>6,154,846.34</td>
<td>32,219,358.67</td>
</tr>
<tr>
<td>Eight months ended Aug. 31, 1959</td>
<td>32,219,358.67</td>
<td>2,603,367.19</td>
<td>34,822,725.86</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1960</td>
<td>34,822,725.86</td>
<td>7,111,963.32</td>
<td>41,934,689.18</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1961</td>
<td>41,934,689.18</td>
<td>5,170,813.96</td>
<td>47,105,503.14</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1962</td>
<td>47,105,503.14</td>
<td>8,536,369.97</td>
<td>55,641,873.11</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1963</td>
<td>55,641,873.11</td>
<td>9,581,935.44</td>
<td>65,223,808.55</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1965</td>
<td>79,930,423.17</td>
<td>10,115,551.83</td>
<td>90,045,975.00</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1966</td>
<td>90,045,975.00</td>
<td>3,526,610.10</td>
<td>93,572,585.10</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1967</td>
<td>93,572,585.10</td>
<td>3,859,634.70</td>
<td>97,432,219.80</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1968</td>
<td>97,432,219.80</td>
<td>6,546,684.44</td>
<td>103,978,904.24</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1969</td>
<td>103,978,904.24</td>
<td>10,515,005.41</td>
<td>114,493,909.65</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1970</td>
<td>114,493,909.65</td>
<td>12,201,174.80</td>
<td>126,695,084.45</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1971</td>
<td>126,695,084.45</td>
<td>16,515,213.55</td>
<td>143,210,298.00</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1972</td>
<td>143,210,298.00</td>
<td>8,954,481.17</td>
<td>152,164,779.17</td>
</tr>
<tr>
<td>Fiscal year ended Aug. 31, 1973</td>
<td>152,164,779.17</td>
<td>7,196,060.71</td>
<td>159,360,839.88</td>
</tr>
</tbody>
</table>

Summary for period  
17,520,250.06  141,840,589.82  159,360,839.88

(BYU Financial Services)
Utility Annual Costs - 1957 - 1971

As the studentbody and faculty grew in number, and as the floor area of buildings was increased, it could be expected that the annual utility costs would also increase. From the tabulation of utility costs below, it may be seen that, while utility costs increased seven times from 1957 to 1971, the enrollment and floor area only increased approximately three times. This disproportionate increase may be attributed to inflation and the advent of building air-conditioning. Other, more minor factors may be higher room light levels and more electrically operated equipment in laboratories and shops.

Utility Costs for BYU Campus 1957 - 1971

<table>
<thead>
<tr>
<th></th>
<th>Water $</th>
<th>Gas $</th>
<th>Sewer $</th>
<th>Power $</th>
<th>Total $</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>20,883</td>
<td>525</td>
<td>4,740</td>
<td>86,825</td>
<td>112,973</td>
</tr>
<tr>
<td>1958</td>
<td>27,716</td>
<td>608</td>
<td>5,944</td>
<td>112,997</td>
<td>147,265</td>
</tr>
<tr>
<td>*1959</td>
<td>12,124</td>
<td>27,060</td>
<td>2,795</td>
<td>37,745</td>
<td>79,724</td>
</tr>
<tr>
<td>1959 - 60</td>
<td>26,763</td>
<td>39,200</td>
<td>4,412</td>
<td>153,577</td>
<td>223,952</td>
</tr>
<tr>
<td>1960 - 61</td>
<td>23,042</td>
<td>34,540</td>
<td>4,528</td>
<td>186,970</td>
<td>249,080</td>
</tr>
<tr>
<td>1961 - 62</td>
<td>23,975</td>
<td>34,327</td>
<td>6,241</td>
<td>214,869</td>
<td>279,412</td>
</tr>
<tr>
<td>1962 - 63</td>
<td>16,306</td>
<td>26,189</td>
<td>6,385</td>
<td>219,360</td>
<td>268,240</td>
</tr>
<tr>
<td>1963 - 64</td>
<td>32,360</td>
<td>21,393</td>
<td>9,275</td>
<td>269,268</td>
<td>332,296</td>
</tr>
<tr>
<td>1964 - 65</td>
<td>31,604</td>
<td>16,711</td>
<td>13,979</td>
<td>375,708</td>
<td>438,002</td>
</tr>
<tr>
<td>1965 - 66</td>
<td>44,880</td>
<td>16,748</td>
<td>21,092</td>
<td>435,685</td>
<td>518,405</td>
</tr>
<tr>
<td>1966 - 67</td>
<td>41,941</td>
<td>19,241</td>
<td>21,664</td>
<td>469,015</td>
<td>551,861</td>
</tr>
<tr>
<td>1967 - 68</td>
<td>50,639</td>
<td>21,735</td>
<td>22,857</td>
<td>493,420</td>
<td>588,651</td>
</tr>
<tr>
<td>1968 - 69</td>
<td>47,112</td>
<td>45,591</td>
<td>23,854</td>
<td>550,012</td>
<td>666,569</td>
</tr>
<tr>
<td>1969 - 70</td>
<td>47,708</td>
<td>37,616</td>
<td>25,943</td>
<td>616,622</td>
<td>727,889</td>
</tr>
<tr>
<td>1970 - 71</td>
<td>59,341</td>
<td>42,139</td>
<td>28,452</td>
<td>696,832</td>
<td>826,764</td>
</tr>
</tbody>
</table>

*Eight months only. On September 1, 1959 the University changed from calendar to fiscal year.
Landscaped area south of Grant Building

View to east from north side of the Maeser Building

View to north from west of Grant Building

Southeast corner of Richards Physical Education Building
West side of mall, Smoot Building in background

View to east from west of Smith Family Living Center

Family Living Center, Library and Wilkinson Center

View to east, Eyring Science Center on right
The Physical Plant Department - 1974

- Entrance to administrative offices Physical Plant Building
- Physical Plant Building from roof of Central Heating Plant
- Upper court of Physical Plant Building when trucks are out
- Upper court of Physical Plant Building when trucks are in
Full-time staff and administrative personnel of the Physical Plant Department number 274 (December 31, 1974). Part-time student employees totaled approximately 677 at the end of the 1974 fall semester. The trades and skills represented in this department are numerous and varied. Responsibilities extend to all parts of the campus and beyond. A close working relationship is maintained with personnel of Auxiliary Maintenance who are responsible for the interiors of housing buildings, the Wilkinson Center, and all food services equipment. Little is known outside of the department about its inner workings because these people serve best when they are least conspicuous.
PHYSICAL PLANT PERSONNEL  
September 5, 1974

Left to Right


Fourth Row  Anna Steele, Jane Bevan, Vera Stringham, Elaine V. Drake, C. Dell Scott, Jacque Bell, Vaunda S.Box, Robert Paskett, Leah Shoell, Lola V. Colamaio, Robert B. Cottam, Robert A. Bennett, Victor Angulo, Eldon C. Jones, Richard Baker, Alex N. Wilkey.


Seventh Row  

Eighth Row  

Ninth Row  

Tenth Row  

Eleventh Row  

Twelfth Row  

Thirteenth Row  
This photograph was taken September 1, 1974 of Fred Schwendiman at his desk the first day that he took over the responsibilities of directing Facilities Planning, Construction and Maintenance for LDS Church Colleges and Schools. His new title was Asst. Vice President/Physical Plant. This position had previously been occupied by Sam F. Brewster until his retirement on August 31, 1974.

At this time there are two additional secretaries, Lura Pospical and Rayanna Washburn, and a part-time student assisting Harold Anderson and others as directed.
Accounting and Business Office - 1974

The Accounting Section of the Physical Plant Department is responsible for budgets, invoicing, procurement, monthly and annual financial reports, sick leave records, employees’ records, office supplies and equipment, and maintenance and job costs.

Following is a list of equipment in this office:

- 5 printing, electric calculators
- 2 electric calculators
- 5 electric typewriters
- 2 adding machines
- 1 ditto machine
- 1 Xerox machine (leased)
- 21 four drawer filing cabinets
- 136 cardboard filing drawers

Personnel of the Accounting Section Office are as follows:

Scott P. McClellan   Office Manager
Harriet J. Broberg   Expediter
Bea Ferguson         CPO and Utilities Clerk
Amanda Ranking       Bookkeeper
Leah Shoell          Work Order Clerk
Evelyn Sloan         Payroll Clerk
Two part-time students
Scott P. McClellan, office manager

Accounting Office - Evelyn Sloan in background

Accounting Office - Harriet Broberg at right, student employee at left

Accounting Office - Amanda Rankin, bookkeeper
The Air-conditioning Shop maintains and operates the central chilled water plant and the primary cooling systems to all academic and housing buildings. It is also responsible for the secondary heating and cooling systems in all academic buildings.

Seven major buildings are connected into a central control using both the Honeywell Delta 2000 and the Johnson JC 80 systems. Eventually, all major buildings will be connected to this central control system.

Personnel of this shop include the following men:

Russell F. Walker  Supervisor
Reed R. Boshard  Assistant Supervisor
Gerald Stoddart  Air-conditioning Mechanic
Doyle Young  Air-conditioning Mechanic
H. Allen Parker  Air-conditioning Mechanic
Elijah Linford  Air-conditioning Mechanic
Henry Meyer  Air-conditioning Mechanic
Richard Tucker  Air-conditioning Mechanic
Bryant Moore  Air-conditioning Mechanic
Clifford A. Hardy  Air-conditioning Mechanic
Eugene H. Scott  Air-conditioning Mechanic
Richard A. Barker  Air-conditioning Mechanic
John Farley  Air-conditioning Mechanic

Four students who do cleaning and assist the mechanics.

Air-conditioning Shop

Russell Walker at console of Honeywell Delta 2000 central control system
Elijah Linford working on the chiller control panel of the Wilkinson Center

Elijah Linford at the temperature control panel of the Wilkinson Center

Reed Boshard in central chilled water plant

Hank Meyer doing maintenance work on a refrigerated drinking fountain
The Carpenter Shop includes trades beyond what the name implies. In addition to carpentry construction there are the following skills: cabinetmaking, door lock and closet repair, floor tile installation, Venetian blind maintenance, and furniture repair.

A well equipped shop is provided with the following items of equipment:

- 2 table saws, 12 inch
- 3 cutoff saws, 10 to 16 inch
- 1 planer, 24 inch
- 3 jointers, two 6 inch and one 16 inch
- 1 drum sander, 42 inch
- 1 mortise and tenon machine
- 1 spindle shaper
- 1 band saw, 10 inch throat
- 1 saw filing machine
- 1 drill press
- Hand tools

Personnel in the Carpenter Shop are listed below:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwaine F. Williams</td>
<td>Supervisor</td>
<td>Leland Shoell</td>
<td>Carpenter</td>
</tr>
<tr>
<td>Walter DeHaan</td>
<td>Assistant Supervisor</td>
<td>Thurlin Thompson</td>
<td>Carpenter</td>
</tr>
<tr>
<td>Russell Gines</td>
<td>Carpenter</td>
<td>Garth Torgersen</td>
<td>Carpenter</td>
</tr>
<tr>
<td>Merl H. Gowans</td>
<td>Carpenter</td>
<td>Laverl Turnbow</td>
<td>Carpenter</td>
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<tr>
<td>Scott Hintze</td>
<td>Carpenter</td>
<td>Max J. Woodbury</td>
<td>Carpenter</td>
</tr>
<tr>
<td>Dwain E. Judkins</td>
<td>Carpenter</td>
<td>Glen Zenger</td>
<td>Carpenter</td>
</tr>
<tr>
<td>Ray F. Nielsen</td>
<td>Carpenter</td>
<td>Charles A. Harper</td>
<td>Locksmith</td>
</tr>
<tr>
<td>Richard Phillips</td>
<td>Carpenter</td>
<td>Arland Workman</td>
<td>Locksmith</td>
</tr>
<tr>
<td>Douglas Roberts</td>
<td>Carpenter</td>
<td>Two students</td>
<td></td>
</tr>
</tbody>
</table>
Doug Roberts, cabinetmaker

Charles Harper, locksmith

Garth Torgersen, cabinetmaker

Richard Phillips, cement finisher
Thurlin Thompson repairing door

Max Woodbury, carpenter

Student employee cleaning blinds

Glen Zenger laying floor tile
The Church Schools Section of the Physical Plant Department is responsible for coordination of construction and maintenance on all Church campuses other than Brigham Young University. Edwin Cozzens and Norman Faldmo, Assisted by Barbara Johnson, secretary, perform this work under the direction of Fred A. Schwendiman, Asst. Vice President/Physical Plant.

Church Schools - 1974

Edwin Cozzens, engineer, and Norman Faldmo, architect studying an aerial photograph of a Church school in the South Pacific

Doug Maki and Norman Faldmo building a model campus development
The Custodial Section is the largest unit in the Department of Physical Plant. Student, part-time employees (approximately 500) far outnumber full-time employees (67) in this section. The problems that could be expected with such a large and transient work force are surprisingly few due to the high quality of both students and supervisors. Duties and responsibilities of the Custodial Section are as follows:

Floor cleaning and maintenance
  (tile, carpet, concrete, wood, terrazzo, etc.)
Wall, ceiling, and light fixture cleaning
Restroom cleaning
Window washing, inside and out
Snow removal from entrances
Furniture dusting and polishing
Chalkboard cleaning
Light bulb changing
Issuing of door keys

Rental of student lockers
Moving of furniture
Room furniture setups
Report needed repairs on buildings, etc.
Lock and open buildings
Clean and maintain swimming pools
Collection of lost and found articles
Directory board setups
Repair of floor buffers, vacuums, etc.
Delivery of cleaning supplies

Personnel in the Custodial Section:

Edward Terris        Supervisor
Lowell Johnson       Assistant Supervisor
Lawrence Robinson    Moving Crew Supervisor
Gerald Smith         Moving Crew
Rodney Davenport     Custodial Repair
Alvin Harding        Custodial Repair
Betty Tippetts       Secretary
Jacque Bell          Key Office Secretary
Charlotte Brown      Key Office Secretary
Robert Boyd          Area Supervisor
Levier Gardner       Area Supervisor
Wesley Graff         Area Supervisor
VerDon Harward       Area Supervisor
Gustav Koepsel       Area Supervisor
Cecil Layton         Area Supervisor

David Mitchell       Area Supervisor
Duane Wilden         Area Supervisor
Wayne Williams       Area Supervisor
Ferrin Wood          Area Supervisor
Victor Angulo        Custodian
Richard Baker        Custodian
Robert Bennett       Custodian
Richard Boel         Custodian
James Bonnett        Custodian
Aron Bryan           Custodian
Gail Burton          Custodian
Jack Carter          Custodian
Lewis Cleaveland     Custodian
Jack Cloward         Custodian
Robert Cottam        Custodian
Paul Dixon   Custodian
George Fannin   Custodian
Albert Feldman   Custodian
Adrian Fredericks   Custodian
Ivan Fuller   Custodian
Ray Funk   Custodian
Theron Funk   Custodian
Paul Haderlie   Custodian
Ernest Holt   Custodian
Ray Howell   Custodian
Eldon Jones   Custodian
Terry Limb   Custodian
Kenneth Maker   Custodian
Bob Paskett   Custodian
Rick Phipps   Custodian
Steven Powell   Custodian
Larry Prisbrey   Custodian
David Raab   Custodian
Gary Sloan   Custodian
Melvin Sommers   Custodian
Urban Stewart   Custodian
William Storrs   Custodian
Keith Swensen   Custodian
Leslie Taylor   Custodian
Rafael Vera   Custodian
Alex Wilkey   Custodian
Lynn Woodward   Custodian
Vernon Young   Custodian
Jane Bevan   Custodial Worker
Lois Crist   Custodial Worker
Elaine Drake   Custodial Worker
Dortha Hatch   Custodial Worker
Sarah Hutchings   Custodial Worker
Elly McLean   Custodial Worker
Anna Steele   Custodial Worker
Vera Stringham   Custodial Worker
Viola Taylor   Custodial Worker
500 student employees

Custodial Supervisor, Ed Terris, on the right and Lowell Johnson, Assistant, on the left

Supervisor, Ed Terris, instructing Custodial Area supervisors in policies and procedures
Equipment Repair Shop - student at left, Rodney Davenport at right

Jackie Bell working at the key file

Moving crew

Window cleaning crew
Student employee cleaning windows

Albert Feldman cleaning a restroom

Paul Dixon and Ferrin Wood shampooing a carpet

Student employee vacuuming a carpet
David Raab buffing tile floor

Ferrin Wood dust mopping tile floor

Light bulb changing - Paul Dixon on ladder
Ferrin Wood bellow

Jane Bevan, matron
Electrical Shop - 1974

The Electrical Shop has maintenance responsibility in the following areas:

- High voltage distribution systems throughout the campus from electrical substations to the individual buildings.
- Low voltage distribution systems in all campus buildings.
- Approximately 60 elevators.
- Campus area lighting.
- Clock and bell systems.
- Auto-call, fire, and emergency alarm systems.

In addition to the above maintenance responsibilities, the Electrical Shop does about 70% of the electrical construction associated with remodeling on campus.

At the present time the Electrical Shop has the following items of equipment:

- 11 pickup truck service vehicles
- 2 high ranger boom trucks, one 25 ft. high and one 45 ft. high
- 1 Cushman scooter
- 2 hydraulic pipe benders
- 1 high voltage conductor insulation tester
- 1 oscilloscope
- 1 master clock--radio controlled
- 1 electrical demand meter
- 1 power outage analyzer

Personnel of the Electrical Shop are as follows:

- Grant Clement, Supervisor
- Harold Chipman, Assistant Supervisor
- Denny Fitch, Construction and General Maintenance
- Marvin Taufer, Construction and General Maintenance
- Don Taylor, Construction and General Maintenance
- Lynn Williams, Construction and General Maintenance
- Alvin Witt, Construction and General Maintenance
- Philip Williams, Elevator Maintenance
- Stanley Williams, Elevator Maintenance
- Jesse Johnson, High Voltage Maintenance
- Thomas Murdock, Auto-call Installations and Maintenance
- Doyle Thurston, High Ranger Operator; Const. & General Maintenance
- Gayle Yorgason, Clock and Auto-call Maintenance
- 10 student employees
Electrical Shop

Grant Clement, supervisor, left
Harold Chipman, assistant, right

Electrical Substation #3

Electrical Substations #2 and #4
Electrical Substation #1

Philip Williams at an elevator control panel

Jesse Johnson in electrical switching vault “E”

Gayle Yorgason, clock and bell maintenance technician
Doyle Thurston performing area lighting maintenance work

Alvin Witt, electrical construction journeyman

Don Taylor, electrician

Jesse Johnson at controls of emergency electrical generator in Marriott Center
Grounds Section - 1974

Grounds personnel are responsible for the following:

Construction and maintenance of landscape planting and sprinkling systems on the BYU campus, the MTC and the Provo Temple.
Removal of snow.
Removal of trash.
Grading, excavation, and trenching.
Operation of the Physical Plant greenhouse.

Following is a list of Grounds equipment:

- 4 dump trucks
- 1 flatbed dump
- Van for hauling plant materials
- 6 pickup trucks
- 12 utility trucks
  - (9 Datsun, 1 Ford, 1 Chevrolet, 1 Toyota)
  - 5 tractors, farm type, for snow removal, etc.
- 1 unloader
- 1 spray truck
- 1 mist blower spray unit on order
- 1 road grader
- 1 Huber grader
- 1 W8 Case loader
- 1 Crab loader/back hoe
- 2 forklifts
- 2 five gang lawn mowers
- 4 three gang lawn mowers
- 5 thirty inch mowers
- 7 twenty inch rotary trimmers
- 5 rotary edgers
- 1 brush chipper
- 1 compost shredder
- Gas pumps
- 1 lawn mower sharpener
- Welding setup
- 2 sprinkling system repair trucks
- 1 street flusher truck
- 1 street sweeper
- 2 pipe threaders--large
- 1 pipe threader--small
- 1 trenching machine
Personnel of the Grounds Section:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wendy Jarvis</td>
<td>Supervisor</td>
<td>Student Distribution</td>
</tr>
<tr>
<td>Ross Rieske</td>
<td>Asst. Supervisor</td>
<td>Student Distribution</td>
</tr>
<tr>
<td>Stanley Barnett</td>
<td>Gardener Foreman</td>
<td>Student Distribution</td>
</tr>
<tr>
<td>Richard Despain</td>
<td>Gardener Foreman</td>
<td>Outlying Areas</td>
</tr>
<tr>
<td>Hugo Berrio</td>
<td>Gardener</td>
<td>Main Campus &amp; South Slope</td>
</tr>
<tr>
<td>Clyde Braithwaite</td>
<td>Gardener</td>
<td>Wymount &amp; Aux. Maintenance</td>
</tr>
<tr>
<td>Gary Cardall</td>
<td>Gardener</td>
<td>Wyview &amp; Helaman Halls</td>
</tr>
<tr>
<td>Calvin Herrin</td>
<td>Gardener</td>
<td>Temple</td>
</tr>
<tr>
<td>LaVan Kilgrow</td>
<td>Gardener</td>
<td>Weed &amp; Insect Control (Campus)</td>
</tr>
<tr>
<td>Doward Lewis</td>
<td>Gardener</td>
<td>Main Campus &amp; North Slope</td>
</tr>
<tr>
<td>Raymond North</td>
<td>Gardener</td>
<td>Stadium &amp; Athletic Fields</td>
</tr>
<tr>
<td>Eldon Pack</td>
<td>Gardener</td>
<td>Pres. Home, RB, SFH, &amp; Playfields</td>
</tr>
<tr>
<td>Gary Rasmussen</td>
<td>Gardener</td>
<td>Main Campus (South)</td>
</tr>
<tr>
<td>David Saxey</td>
<td>Gardener</td>
<td>Heritage Halls &amp; Deseret Towers</td>
</tr>
<tr>
<td>Edward Swann</td>
<td>Gardener</td>
<td>Main Campus (North)</td>
</tr>
<tr>
<td>William Teramoto</td>
<td>Gardener</td>
<td>Campus Landscape Construction</td>
</tr>
<tr>
<td>Carroll Westfall</td>
<td>Gardener</td>
<td>Campus Buildings &amp; Greenhouse</td>
</tr>
<tr>
<td>Hal Burrows</td>
<td>Operator</td>
<td>Heavy Equipment</td>
</tr>
<tr>
<td>Edmund Davenport</td>
<td>Operator</td>
<td>Heavy Equipment</td>
</tr>
<tr>
<td>Anthony Grunander</td>
<td>Operator</td>
<td>Heavy Equipment</td>
</tr>
<tr>
<td>Paul Jackson</td>
<td>Operator</td>
<td>Heavy Equipment</td>
</tr>
<tr>
<td>Joe Phillips</td>
<td>Operator</td>
<td>Heavy Equipment</td>
</tr>
<tr>
<td>Blaine Poulsen</td>
<td>Horticulturist</td>
<td>Campus Buildings &amp; Greenhouse</td>
</tr>
<tr>
<td>Howard Carpenter</td>
<td>Asst. Horticulturist</td>
<td>Campus Buildings</td>
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<tr>
<td>Larry Horlacher</td>
<td>Station Attendant</td>
<td>Gas Station</td>
</tr>
<tr>
<td>Richard Johnson</td>
<td>Office Manager</td>
<td></td>
</tr>
<tr>
<td>Wendell Mathews</td>
<td>Mower Foreman</td>
<td>Main Campus</td>
</tr>
<tr>
<td>Richard Warnock</td>
<td>Mower Asst. Foreman</td>
<td>Outlying Areas</td>
</tr>
<tr>
<td>Vard Moulton</td>
<td>Refuse Collector</td>
<td>Campus</td>
</tr>
<tr>
<td>Roy Peterman</td>
<td>Sprinkling Foreman</td>
<td>Campus</td>
</tr>
<tr>
<td>Greg Howarth</td>
<td>Sprinkler Repairman</td>
<td>Campus</td>
</tr>
</tbody>
</table>

98 student employees
Grounds crew leaving shop area for campus assignments
Larry Horlacher, service station attendant

Howard Carpenter spraying indoor plants

Doward Lewis spraying trees and shrubs

Student employee operating tractor with lawn aerator attached
Wendell Mathews using lawn mower sharpener

La Van Kilgrow, with student help, maintains Provo Temple grounds

Trailer for transporting small lawn mowers

Wendell Mathews on gang mower
Carroll Westfall cutting sod

Trimming hedge with special mowing attachment on truck

Tree limb chipper

Richard Despain trimming trees
Ed Davenport operating street sweeper

Street flusher

Road maintenance at Utah Lake Biology Laboratory

Waste removal truck
Richard Despain trimming trees

Eldon Pack opening valve on the underground
Lawn irrigation system

Compost shredder

The front end loader
Central Heating Plant - 1974

Personnel of the Central Heating Plant are responsible for the operation and maintenance of the high temperature water and the steam boilers, both coal and gas fired. Their responsibility also includes the maintenance of the primary heat distribution system. At the present time, the major components of the Central Heating Plant consist of the following:

- **Boiler #1** -- gas fired, 30,000 pounds per hour
- **Boilers #2, #3, & #4** -- coal fired, 50,000,000 BTU per hour
- **Boilers #5 & #6** -- coal fired, 100,000,000 BTU per hour
- 21 remote gas fired boilers
- 35 mechanical equipment rooms
- 16 valve manholes
- 2 coal silos, 450 tons each
- 2 coal hoppers over boilers #5 & #6, 150 tons each
- 2 coal hoppers over boilers #2, #3, & #4, 75 tons each
- Concrete pad for outside coal storage, 2,000 tons
- Ash silo, 15 ton capacity
- Two-and-a-half miles of walkthrough tunnel
- Three miles of direct buried thermal conduit

Coal, water and electricity consumption is as follows:

- **Coal** -- 40,000 tons per year with a high of 200 tons a day
- **Water** -- 1,500,000 gallons per month
- **Electricity** -- 200,000 KW per month

The cost of operating the Central Heating Plant is approximately $450,000 per year.

In addition to the usual hand tools, the Central Heating Plant has the following:

- 1 tunnel ventilating fan
- 1 portable electric generator -- 1,500 watts
- 3 electrical welders (2 DC; 1 AC)
- 2 acetylene welders
- 4 trucks
- 1 Cushman cart
- 1 portable tripod hoist
- 1 slurry pump
- 4 sump pumps
- 1 portable air compressor
- 1 portable Lincoln arc welder

Personnel of the Central Heating Plant are as follows:

- **Jack Meredith** -- Supervisor
- **Don Erickson** -- Assistant Supervisor
- **Craig Carter** -- Maintenance Mechanic
- **Leon Robinson** -- Maintenance Mechanic
- **Frank Stephens** -- Maintenance Mechanic
- **Reid Everling** -- Boiler Operator
- **Reid Garlick** -- Boiler Operator
- **Mark Jensen** -- Boiler Operator
- **John Rowley** -- Boiler Operator
- **Ennis Woffinden** -- Spare Boiler Operator
- **Marshall Fox** -- Auxiliary Plant Foreman
- **Elmo Syme** -- Auxiliary Plant Foreman
- **Theo Haws** -- Instrument Repairman
- **Michael Maloney** -- Insulator
- **Doug Williams** -- Painter
- 6 student employees
Jack Meredith, supervisor - Don Erickson, assistant

Central Heating Plant from northeast

Smoke stack and ash silo base

Interior of heating plant
Interior of Heating Plant

Unloading coal truck

Mark Jensen, operator

Theo Haws, instrument maintenance
Don Erickson, welder

Marshall Fox, gas fired boiler operator

Michael Maloney, insulation applicator

Leon Robinson, operator
Mechanical Shop - 1874

Personnel of the Mechanical Shop are responsible for maintenance of all water, sewer, and gas lines on campus. They are also responsible for plumbing and plumbing fixtures in all academic buildings. In addition to the above, this shop does steel and sheet metal fabrication for the entire campus.

Tools and equipment in this shop are as follows:

1 disc sander
1 hand press
1 hydraulic press
2 machine lathes
2 milling machines
3 drill presses
2 metal band saws
4 metal grinders
1 wire buffer
2 stationary electric welders
1 portable electric welder
2 gas welding units
1 power cutoff saw
1 stationary pipe threader
2 portable pipe threaders
1 portable power drive wrench
5 sewer power augers, 1 ¼” to 6” drains
1 hollow core diamond drill, 1 ¼” to 6”
1 compound leverage wrench
1 lock former
1 sheet metal slitter
1 sheet metal pipe roller
2 sheet metal hand breaks
1 sheet metal rotary punch, 1/8” to 2”
1 sheet metal hand punch, to 4”
1 sheet metal 4 ft. shear
1 sheet metal spot welder
1 sheet metal crimper
2 sheet metal trucks
1 welder-machinist truck
7 plumbing trucks
1 Cushman scooter
Assorted hand tools

Personnel of the Mechanical Shop are as follows:

J. Petty Jones  Supervisor
Eugene Steffen  Assistant Supervisor; Plumber
Elmo Croft  Machinist
Donald Elmer  Plumber
Willard Evans  Plumber
Virl Long  Plumber
Lothair Mangum  Plumber
Gregory Sauter  Plumber
LaVar Sweat  Plumber
Mitchell Mitoray  Sheet Metal Craftsman
Chester Perry  Sheet Metal Craftsman
Ray Mortensen  Welder
2 student employees
Lothair Mangum, left, and J. Petty Jones, supervisor

Mechanical Shop

Eugene Steffen, assistant supervisor

Mitchell Mitoray, sheet metal craftsman
Chester Perry, sheet metal craftsman

Elmo Croft, machinist

Ray Mortensen, welder

Virl Long, plumber
Don Elmer, plumber

Willard Evans and Lothair Mangum, plumbers
Motor Pool - 1974

The BYU Motor Pool maintains a fleet of cars, trucks, and busses which are rented to departments and student organizations on an individual trip basis. William Graham is the supervisor with Kent Flack as record keeper. Lynwood Rasmussen is a bus driver and the tire repairman. Four student employees wash cars and perform messenger service for the University as needed.

In addition to the Motor Pool office and a well equipped car wash building, they have the following equipment:

- 7 sedans
- 9 station wagons
- 1 mobile home
- 3 trucks, 1 ½ ton
- 1 truck, ¾ ton
- 5 blazers, 4 wheel drive
- 10 vans, 12 passenger
- 2 busses, 36 passenger
- 1 bus, 41 passenger
- 1 bus, 24 passenger

Various departments on campus own and operate vehicles apart from the Motor Pool. The following tabulation will help to present more clearly the total BYU vehicle picture:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Univ.</th>
<th>Motor Pool</th>
<th>Year</th>
<th>Total Univ.</th>
<th>Motor Pool</th>
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<tbody>
<tr>
<td>1961</td>
<td>106</td>
<td>11</td>
<td>1968</td>
<td>249</td>
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<td>1962</td>
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<td>1963</td>
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<td>1964</td>
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<td>1971-72</td>
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<td>1966</td>
<td>191</td>
<td>15</td>
<td>1972-73</td>
<td>387</td>
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<tr>
<td>1967</td>
<td>196</td>
<td>16</td>
<td>1973-74</td>
<td>408</td>
<td>40</td>
</tr>
</tbody>
</table>
William Graham in Motor Pool office
Kent Flack, record keeper
Lynwood Rasmussen repairing tires
Student employee washing cars
Paint Shop - 1974

Personnel of the Physical Plant Department Paint Shop perform the following duties:

- Maintenance and some construction painting on all academic buildings
- Refinish and perf-a-taping
- Paint all signs on campus
- Stripe all campus roads and parking lots
- Replace glass in all campus buildings

Following is a list of tools and equipment in this shop:

- 6 air spray guns
- 1 airless spray gun
- 2 paint spray booths
- 7 air powered sanders
- 3 electric sanders
- 2 street striping machines
- 1 glass cutting table
- 24 ladders
- 4 section scaffolding
- 9 trucks

The Glass and Sign Painting Shop is separate from the Paint Shop. All paint supplies are stored in the warehouse. At the present time 40 percent of all paint being used is water base, 55 percent is oil base, and 5 percent is two component (epoxy).

Personnel and their duties are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kay Christensen</td>
<td>Supervisor</td>
<td>Gordon Ludlow</td>
<td>Painter</td>
</tr>
<tr>
<td>Oreian Hanson</td>
<td>Asst. Supervisor; Painter; Furniture Refinish</td>
<td>Kay McAllister</td>
<td>Painter</td>
</tr>
<tr>
<td>Mike Carrasco</td>
<td>Painter</td>
<td>Richard Muhlestein</td>
<td>Painter; Street marking Machine Operator</td>
</tr>
<tr>
<td>Weston Carter</td>
<td>Painter; Furniture Refinish</td>
<td>Guy Nielsen</td>
<td>Painter; Perf-a-taper; Plasterer</td>
</tr>
<tr>
<td>Gene Clark</td>
<td>Painter; Wallpaper Hanger</td>
<td>Farrell Roundy</td>
<td>Sign Painter</td>
</tr>
<tr>
<td>Warren Griffiths</td>
<td>Painter</td>
<td>Dan Taylor</td>
<td>Painter; Street Marking Machine Operator</td>
</tr>
<tr>
<td>Horace Hadfield</td>
<td>Painter; Wallpaper Hanger</td>
<td>Don Thompson</td>
<td>Painter</td>
</tr>
<tr>
<td>Eldon Jeppeson</td>
<td>Painter</td>
<td>Lynn Wride</td>
<td>Painter; Glazier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 student employees</td>
<td></td>
</tr>
</tbody>
</table>

462
Left to right: Weston Carter, Kay Christensen, supervisor and Oreian Hanson, assistant supervisor.

Gene Clark, painter and paper hanger.

Weston Carter, furniture finisher.

Oreian Hanson, furniture finisher.
Farrell Roundy, sign painter

Applying epoxy paint to steel stadium

Spray painting roof of Greenhouse

Installing glass in Wilkinson Center
Lynn Wride cutting and installing glass

Richard Muhlestein and Dan Taylor striping parking lot and stenciling curbs
Planning and Construction Division - 1974

Personnel of this division are responsible for the following:

- Preparation of plans and specifications for alterations and additions
- Landscape and sprinkling plans
- Campus master plans
- Administration and inspection of all construction work done by contract
- Checking of all plans prepared for construction on the BYU campus

Personnel of the Planning and Construction Division are as follows:

- Paul Rasmussen: Construction Engineer
- Al Nelson: Asst. Construction Engineer
- Eldon Henrichsen: Engineering Aide
- Lee Bigelow: Planning Section Architect
- Boyd Datwyler: Landscape Architect
- Scott Briggs: Inspector
- Kyle Cummings: Inspector
- Francis Murdoch: Inspector
- Allan Reckling: Inspector
- Willard Stephensen: Inspector
- Darrell Wilson: Inspector
- Ferral Ogilvie: Mechanical Engineer
- Clair Swenson: Utilities Draftsman
- Dale Sumerix: Interior Design Draftsman
- Douglas Maki: Architectural Draftsman
- Henry Schaefer: Architectural Draftsman
- Dell Scott: Secretary
- Meriann Baum: Secretary
- Cherie Mulhausen: Secretary
- 4 student employees
Paul Rasmussen, planning and construction engineer

Dell Scott, secretary

Alan Layton Jr., contractor and Al Nelson, assistant construction engineer

Eldon Henrichsen, engineering aid
Boyd Datwyler, landscape architect

Drafting room of Physical Plant Department

Ferral Ogilvie and Clair Swenson

Francis Murdoch, building inspector
Darrell Wilson, building inspector

Carr Greer, retired surveyor, now doing part-time work for BYU

Kyle Cummings, roofing inspector

Willard Stephensen, building inspector
Security - 1974

Personnel of the BYU Security Section are responsible for the following:

- Protection of life and property
- Investigation of all criminal matters on University property involving students or personnel
- Enforcement of parking and traffic regulations
- Investigation of traffic accidents
- Furnishing ambulance service

The Security Section is provided with the following equipment:

- 1 ambulance
- 2 scooters (3-wheel)
- 3 marked cars
- 1 pickup
- 2 unmarked cars
- 1 polygraph

Personnel and their duties (as of 1 March, 1975) are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Name</th>
<th>Position</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert W. Kelshaw</td>
<td>Chief of Police</td>
<td>Joe Navarro</td>
<td>Police Patrolman</td>
<td></td>
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<tr>
<td>J. Wesley Sherwood</td>
<td>Assistant Chief of Police</td>
<td>Richard Townsend</td>
<td>Police Patrolman</td>
<td></td>
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<tr>
<td>Michael Harroun</td>
<td>Administrative Assistant</td>
<td>Rodney Warren</td>
<td>Police Patrolman</td>
<td></td>
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</tr>
<tr>
<td>Kal O. Farr</td>
<td>Sergeant, Police Watch Commander</td>
<td>Clive Winn</td>
<td>Police Patrolman</td>
<td></td>
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<tr>
<td>Bernard Turner</td>
<td>Sergeant, Police Watch Commander</td>
<td>Christine Stewart</td>
<td>Chief Secretary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sherman Fletcher</td>
<td>Sergeant, Police Records</td>
<td>Jennifer Morgan</td>
<td>Investigations Secretary</td>
<td></td>
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<tr>
<td>Golden Hardy</td>
<td>Sergeant, Vehicles and Records</td>
<td>Maree Johnson</td>
<td>Chief Traffic Clerk</td>
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<tr>
<td>Ronald M. West</td>
<td>Sergeant, Traffic Enforcement</td>
<td>Jean Jaussi</td>
<td>Traffic Clerk</td>
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<tr>
<td>Gordon Banry</td>
<td>Police Investigator</td>
<td>Janaye Day</td>
<td>Chief Dispatcher</td>
<td></td>
<td></td>
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<tr>
<td>Dan L. Clark</td>
<td>Police Investigator</td>
<td>Rebecca Adams</td>
<td>Dispatcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael J. Taylor</td>
<td>Police Investigator</td>
<td>Lorraine Gauffin</td>
<td>Dispatcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael Wightman</td>
<td>Police Investigator</td>
<td>Dianne Gifford</td>
<td>Dispatcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greg Barber</td>
<td>Police Patrolman</td>
<td>Lisa Giles</td>
<td>Traffic Clerk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bryan Erickson</td>
<td>Police Patrolman</td>
<td>Rosanne Markham</td>
<td>Traffic Clerk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>William Jamison</td>
<td>Police Patrolman</td>
<td>16 student employees</td>
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</tbody>
</table>

The Security Section was transferred out of the Physical Plant Department on 1 March 1975. However, the Security Chief still reports to Fred Schwendiman, Assistant Vice President/Physical Plant
Robert Kelshaw, security chief
Christine Stewart, secretary

Rand Taylor, dispatcher

Wes Sherwood, assistant chief, demonstrating polygraph with Rand Taylor, dispatcher

Security police writing parking tickets
Traffic control officer

Michael Wightman demonstrating ambulance

Emergency trailer

Bernard Turner, demonstrating fingerprinting
Services Section - 1974

Edwin (Ted) Sneddon, supervising engineer, is responsible for the administration of the following:

- Carpenter Shop  Dwaine Williams, supervisor
- Paint Shop      Kay Christensen, supervisor
- Upholstery Shop (John Paulson, supervisor
- Stadium        Grant Palfreyman, supervisor
- Roof Repairs

Four shop supervisors and the Stadium manager report to Ted Sneddon. Minor roof repairs are accomplished with three student employees who report directly to Mr. Sneddon.

Ted Sneddon at right, in a “work order” review with his shop supervisors
Space Utilization Office - 1974

The office of Space utilization was established in 1969 with Albert E. (Ed) Haines as director, reporting jointly to the Physical Plant director and to the academic vice-president.

This office classifies, accounts for, allocates, and works for effective use of campus space and facilities in support of administrative, academic, and stake/ward programs. It analyzes use of existing facilities and recommends changes in use, as warranted. It maintains inventory of buildings and assists and works closely with other sections of the Department of Physical Plant in evaluating recommendations for remodeling existing facilities or acquiring new space. This office serves as liaison on space matters between the Department of Physical Plant and the academic vice-president, deans, directors, and chairmen.

Personnel are as follows:

Albert E. Haines  Director
Mary Trimble  Secretary
3 student employees

Ed Haines with student assistant at computer terminal
Special Projects Office - 1974

Ephraim Hatch, special projects coordinator, is responsible for the first phase of major building projects -- the written program requirements -- on the BYU and other Church school campuses.

For the past three years, in addition to building programming, this office has been researching and compiling the history of the Physical Plant Department for the BYU Centennial History. As a conclusion to this history, it was decided to include this survey of the Department as it now stands, 1974.

Ephraim Hatch, Special Projects Coordinator, selecting photographs for the Centennial History

Pauline Ricker, secretary
Stadium - 1974

Grant Palfreyman, Stadium manager, is responsible for scheduling the Stadium. He coordinates the maintenance and repair work done in the Stadium by Physical Plant staff personnel, and cooperates with coaches and athletic directors to insure effective use of the Stadium.

Grant Palfreyman, stadium manager
In addition to the Accounting Office, Scott P. McClellan is also responsible for the Stockroom or Physical Plant Warehouse. All materials used by the shops of the Department are accounted for by the personnel of the Stockroom. In addition to shelves and pallets used for storing merchandise there are also the following tools and equipment:

- 1 pickup truck
- 1 calculator
- 1 adding machine
- 1 power band saw for metal
- 1 scale
- 1 saber saw and other hand tools

The inventory of stock averages about $100,000. The value of merchandise handled annually totals approximately $350,000.

Personnel of the Stockroom are as follows:

- Russell Davis  Supervisor
- Kenneth Kohler  Warehouseman
- Lyle Smith  Warehouseman
- Larry Stout  Warehouseman
- 2 student employees
Russell Davis checking lumber stock in warehouse

Kenneth Kohler

Stockroom

Larry Stout
Personnel of the “Type Shop” are responsible for maintenance and repair of typewriters, adding machines, cash registers, calculators, and some copying machines on the BYU campus and in the Provo Temple, approximately 3,000 in number. Tools and equipment used by this shop:

- 3 van-type trucks
- 1 lathe for turning typewriter platens
- 1 chemical power cleaner
- 1 oil bath
- 1 blow pit
- 1 drain table
- 1 paint booth
- 1 bake oven

Personnel of the “Type Shop” are as follows:

- Guy Farley, Supervisor
- Carl Stone, Assistant Supervisor
- Kent Amann
- Steven Miller
- Larry Redford
- 2 student employees
Carl Stone

Kent Amann

Larry Redford

Vaunda Box waiting while Guy Farley makes a minor repair to her typewriter
Upholstery Shop - 1974

Personnel of the Upholstery Shop are responsible for the maintenance and repair of upholstered furniture in the academic departments on campus. In addition, they are responsible for drapery, stage curtains, carpets, floor tile, and automotive seat covers, etc.

Tools and equipment in the Upholstery Shop are as follows:

- 3 power sewing machines
- 1 band saw
- 1 lathe
- 1 drill press
- 1 stationary belt sander
- 1 foam saw
- 1 button machine
- 1 spring cutter and bender
- 1 glue pot and spray head
- 1 cushion-filling machine
- Miscellaneous air and electric powered hand tools

Personnel of the Upholstery Shop are as follows:

- John Paulson  Supervisor
- Troy Fisher  Assistant Supervisor
- Robert Jensen  Upholsterer
- 6 student employees
John Paulson, supervisor, and Troy Fisher at right

Troy Fisher, upholsterer

Upholstery Shop

Student upholsterers hanging drapes in President’s home
Utilities Section - 1974

William Stacey, supervising engineer, has six men reporting to him as follows:

- Jack Meredith  Heating Plant
- Russ Walker  Air-conditioning Shop
- Grant Clement  Electrical Shop
- J. Petty Jones  Mechanical Shop
- Jesse Shumway  Water Treatment Section
- Lloyd Soderborg  Mechanical Engineer

William Stacey with supervisors:
Jack Meredith, Russ Walker and Grant Clement
Vehicle Maintenance Shop - 1974

Personnel of the Physical Plant Department Vehicle Maintenance Shop are responsible for the maintenance and repair of approximately 475 cars, trucks, buses, and miscellaneous pieces of motorized equipment. They keep accurate service records on all vehicles and make recommendations for the replacement and purchase of new stock.

Tools and equipment used in this shop at the present time are as follows:

1 front end aligner
2 electric wheel balancers
1 valve grinding machine
1 engine analyzer
3 welders: heliarc, arc, and acetylene
5 battery chargers
Car wash, two bays
Lubrication rack, two bays

Vehicle Maintenance Shop employees:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen Albach</td>
<td>Supervisor</td>
</tr>
<tr>
<td>Norman Crosby</td>
<td>Assistant Supervisor</td>
</tr>
<tr>
<td>Charles Chamberlain</td>
<td>General Mechanic; Bus Driver</td>
</tr>
<tr>
<td>Chester Roskelley</td>
<td>General Mechanic; small engine and body repair</td>
</tr>
<tr>
<td>Everett Booth</td>
<td>General Mechanic</td>
</tr>
<tr>
<td>Ronald Durrence</td>
<td>General Mechanic</td>
</tr>
<tr>
<td>10 student employees</td>
<td></td>
</tr>
</tbody>
</table>

484
Allen Albach, supervisor of the Vehicle Maintenance Shop

Shop area

Parking area outside of Vehicle Maintenance Shop

Everett Booth performing wheel alignment
Chester Roskelley, mechanic

Lyle Smith, parts warehouseman, and Everett Booth, mechanic

Ron Durrence, mechanic

Charles Chamberlain, mechanic and bus driver
Water Treatment Section - 1974

Water used in the primary and secondary heating systems, the air-conditioning systems, and in humidifiers is treated to reduce corrosion, buildup of scale, and odors. Personnel of the Water Treatment Section are responsible for the testing and chemical treating of water on campus.

Fay Jacobson and Guy Moore perform this work with Jesse Shumway, supervisor.