AN ABSTRACT OF THE THESIS OF

George Elmer Emich, Jr. for the Master's in Education

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Title: A STUDY OF THE RECREATIONAL FACILITIES IN THE

PORTLAND HIGH SCHOOLS.

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(Major Professor)

This study was undertaken for two purposes. The first purpose was to determine to what extent the facilities that are provided for recreation in the Portland, Oregon high schools conform to standards for these facilities that have been set up by leaders in the field. The second purpose was to show the facilities available for developing a larger program involving greater pupil participation in recreational activities.

In making this study, records and blueprints from the offices of the Superintendent of Schools and the Director of Health, Physical Education, and Recreation were used whenever possible. The remaining data was obtained by personal visits to the individual schools where measurements and recordings were made with the assistance of the school custodians and the school physical directors.

Data on the Portland facilities was compiled and then compared with standards which were determined from the
available literature in the field. A further method of evaluation was obtained by using the Blair scale for measuring facilities.

None of the schools could meet all of the recommended standards. Jefferson boys' facilities ranked highest, while Lincoln, Girls' Polytechnic, Sabin, and Jane Addams ranked low in a majority of the ratings. The number of gymnasiums required according to student population received the lowest rating of any facility.

The findings of this study suggested the following recommendations:

1. Taxpayers have huge investments in the school plants. These plants should be planned more carefully in future construction plans.
2. Those schools having new facilities in the future should have them conform to the accepted standards.
3. As funds are available, those facilities needing attention most should be remedied first.
4. The present program should be expanded to allow greater use of those facilities which warrant it.
5. An intramural program should be organized in each school to conform with the facilities.
6. A study should be made of the use of these facilities during the summer and also of their use by the
communities in which they are located.

7. Wherever possible, the city of Portland and the schools should organize a year-around cooperative program of recreation.
A STUDY OF THE RECREATIONAL FACILITIES IN THE PORTLAND HIGH SCHOOLS

by

GEORGE ELMER EMIGH, JUNIOR

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Professor of Education

In Charge of Major

Redacted for privacy

Head of Department of Education

Redacted for privacy

Chairman of School Graduate Committee

Redacted for privacy

Chairman of College Graduate Council
The writer wishes to express his sincere appreciation to Dr. R. J. Clinton, professor of Education, for his helpful suggestions and criticisms. His counseling throughout the advancement of this study aided greatly in its completion.

To Mr. Eldon I. Jenne, Director of Health, Physical Education, and Recreation for the Portland Schools, the writer wishes to acknowledge the cooperation and advice received in the use of his office and materials.

G. E. E.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER I</th>
<th>INTRODUCTION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of the Problem</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Need for the Study</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Methods Used in Making the Study</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Number of Schools Involved</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>CHAPTER II</td>
<td>SIMILAR STUDIES</td>
<td>7</td>
</tr>
<tr>
<td>Portland City Planning Commission</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Siler's Study.</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Blair's Study.</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>CHAPTER III</td>
<td>RECOGNIZED STANDARDS</td>
<td>13</td>
</tr>
<tr>
<td>Director's Office</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Number of Gymnasiums</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Location of the Gymnasium</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Size of the Gymnasium</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Height of the Gymnasium</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Locker or Dressing Rooms</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Showers of the Gymnasium</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Team Room of the Gymnasium</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Drying Room.</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Lockers.</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Sanitary Features.</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Light for the Gymnasium.</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Outdoor Areas.</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>CHAPTER IV</td>
<td>DATA RELATIVE TO PORTLAND FACILITIES</td>
<td>24</td>
</tr>
<tr>
<td>Enrollment</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Portland Facilities.</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Drawings</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Rating the Portland Facilities</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>CHAPTER V</td>
<td>SUMMARY AND RECOMMENDATIONS</td>
<td>76</td>
</tr>
<tr>
<td>Summary.</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Recommendations.</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE I</td>
<td>GYMNASIUM FACILITIES</td>
<td>30</td>
</tr>
<tr>
<td>TABLE II</td>
<td>PHYSICAL EDUCATION LOCKER ROOMS</td>
<td>31</td>
</tr>
<tr>
<td>TABLE III</td>
<td>TEAM ROOMS</td>
<td>33</td>
</tr>
<tr>
<td>TABLE IV</td>
<td>BOYS' SHOWER ROOMS</td>
<td>35</td>
</tr>
<tr>
<td>TABLE V</td>
<td>GIRLS' SHOWER ROOMS</td>
<td>37</td>
</tr>
<tr>
<td>TABLE VI</td>
<td>UTILITY ROOMS</td>
<td>39</td>
</tr>
<tr>
<td>TABLE VII</td>
<td>LOCKERS</td>
<td>41</td>
</tr>
<tr>
<td>TABLE VIII</td>
<td>SANITARY FACILITIES</td>
<td>42</td>
</tr>
<tr>
<td>TABLE IX</td>
<td>TOTAL OUTDOOR PLAY AREA</td>
<td>44</td>
</tr>
<tr>
<td>TABLE X</td>
<td>OUTDOOR FACILITIES</td>
<td>45</td>
</tr>
<tr>
<td>TABLE XI</td>
<td>GYMNASIUM GAME FACILITIES</td>
<td>46</td>
</tr>
<tr>
<td>TABLE XII</td>
<td>PEAK LOAD IN PHYSICAL EDUCATION CLASSES</td>
<td>47</td>
</tr>
<tr>
<td>TABLE XIII</td>
<td>PHYSICAL EDUCATION DIRECTORS AND ATHLETIC COACHES</td>
<td>47</td>
</tr>
<tr>
<td>TABLE XIV</td>
<td>INTERSCHOLASTIC ATHLETIC PARTICIPATION</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>1939-1940</td>
<td></td>
</tr>
<tr>
<td>LIST OF DRAWINGS</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>JANE ADDAMS</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>BENSON POLYTECHNIC</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>GIRLS' POLYTECHNIC</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>COMMERCE</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>FRANKLIN</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>GRANT</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>JEFFERSON BOYS</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>JEFFERSON GIRLS</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>LINCOLN</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>ROOSEVELT</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>SABIN</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>WASHINGTON</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>
A STUDY OF THE RECREATIONAL FACILITIES IN THE PORTLAND HIGH SCHOOLS

CHAPTER I

INTRODUCTION

In making this study the writer is dealing with a problem which today is of great concern to every individual within the United States, recreation. Recreation has become a most important part of the lives of the people of this nation. This growing importance is due to many factors, chief of which is the tremendous increase in leisure time. Technological improvements and developments have so increased man's efficiency and production that leisure has been extended to everyone. The problem today is not how to obtain leisure time, but how to utilize it more wisely. Nations and individuals have been ruined by the manner in which their free hours are spent. One of society's greatest tasks and one which will offer the solution of many of its most vital problems is to bring about a more wholesome use of leisure time. Leisure presents many opportunities for the enrichment of personal life and the improvement of the social order, but few people are equipped to make the most of them.
According to Voltmer and Esslinger, (17:391)

The task is one for education--education for recreation. Leisure has come so suddenly that its full significance is not yet appreciated and various educative agencies are just beginning to devote their efforts towards worthy use of leisure time.

As previously stated, recreation has gained in importance. So much so in fact that our society is faced with the task of providing the individual with the experiences and the means to successfully make use of that leisure time. Since it is a task for education, it remains for physical education to assume a great part of the responsibility. Physical education is in a position to play an important part in providing the skills and the enthusiasm for recreation. Before going into a discussion of the place of physical education in this program, it is necessary to define what is meant by recreation and the type of recreation referred to during this study.

Recreation has a great many different meanings to people. Usually it is thought of primarily as encompassing those activities which an individual engages in for his own particular enjoyment. If he is primarily interested in such things as competitive sports, either as a participant or a spectator, he thinks of recreation largely in terms of that kind of activity. If he enjoys those activities of the outdoors such as hunting, fishing, camping,
etc., he is apt to think of recreation as applying to that
field. It can thus be seen that the meaning of the term
is determined by the particular interest and activities
of the individual himself. Recreational interests and
activities extend into the fields of play, music, drama,
art, literature, and nature. It may be applied to all
these insofar as they all offer certain experiences of
satisfaction either mental or physical. To apply the term
recreation to any one group of activities and not to others
would thus be assuming that one of these fields and no
other is recreational. It must be applied to all activ-
ities which achieve the satisfactions that the individual
desires. It is with the satisfactions gained from physi-
cal activities to be found in the gymnasium and on the
play fields that this study is concerned. Whenever the
term recreation is used in this study, it is concerned
with those activities which are engaged in on the fields,
courts, and gymnasiums of the Portland High Schools. The
writer wishes to leave the study of the other fields of
recreation, and the facilities for them in the Portland
High Schools, to those who are better qualified in those
particular fields.

Physical education and recreation have a very close
relationship. This is emphasized very strongly by Voltmer
and Esslinger (17:394):

Physical education is concerned with big-muscle
play activities, while recreation is concerned with all types of play activities whether they be neuro-muscular, sensory, intellectual, emotional, or a combination of these. Recreation is a broader term than physical education, and includes, in addition to sports, games, and rhythmics, any activity in which an individual participates for the pleasure of participation. Practically all physical education activities are, and should be, recreational. A recreational activity is one in which participation is voluntary and spontaneous and does not require stimulation or reward outside of the activity itself. This conception of a recreational activity excludes instructor-enforced calisthenics, marching, and formal activities, which formerly dominated the school physical education programs. Fortunately, the trend in the schools is toward a more definitely recreational type of physical education program. The recreation movement has had a tremendous influence on physical education. The reason for this is easy to understand for both recreation and education have essentially the same aims in respect to worthy use of leisure time, health, character development, and to citizenship.

Physical educators have taken a prominent position in the recreation in the schools. As the recreation movement expanded, the facilities available for public use soon were found inadequate. Although this problem has not as yet been entirely solved, it has been considerably alleviated by the use of the public school recreation facilities.

Statement of the Problem

The purpose of this study has been to determine to what extent the physical education and recreation facilities of the Portland High Schools conform to the standards
that are generally recognized by leading educators as being necessary to carry out an adequate program.

The physical education program as well as the athletic program of the Portland high schools is designed to give pupil recreation as well as training for after-school recreation. This kind of a program requires extensive facilities. The writer has intended the study to show not only how the facilities conform to accepted standards, but to show also what facilities are available for a more extended program.

Need for the Study

Recreation of the nature referred to in this study requires a wide variety of facilities, and involves an enormous cost essential for the proper development of a good program. Thus it is necessary to study the facilities in order to bring about improvements, and to be able to plan a larger program.

Methods Used in Making the Study

In order to compile a record of the facilities available for the Portland high school program, it was necessary to obtain as much information as possible from the school authorities. Much of the material was obtained from blueprints and records from the files of the Director
of Health, Physical Education, and Recreation. School population and figures on classes were obtained from the office of the Superintendent of Schools.

The outdoor areas for each school were obtained from a study made by the City Planning Commission in 1936, when it made a survey of the city's public recreational areas.

The author also made personal visits to each of the high schools, and, with the assistance of the Athletic Directors of each school and the school custodians, was able to make measurements and get data that was not available from the other sources.

Number of Schools Involved

The facilities were studied for the eleven Portland high schools. The high schools are:

- Jane Addams (Girls only)
- Benson Polytechnic (Boys only)
- Commerce (Boys and Girls)
- Franklin (Boys and Girls)
- Grant (Boys and Girls)
- Jefferson (Boys and Girls)
- Lincoln (Boys and Girls)
- Roosevelt (Boys and Girls)
- Sabin (Boys only)
- Washington (Boys and Girls)
- Girls' Polytechnic
CHAPTER II

SIMILAR STUDIES

Portland City Planning Commission Survey (5)

In 1936 the City Planning Commission of the city of Portland, Oregon, made a survey and report on the Public Recreational Areas of the city.

The purpose of this study was to present the city administration with a report of the relative present needs in the various neighborhoods as an advisory guide in aiding the administration in acquainting the public with the economic and social questions relating to public recreation.

A definite procedure was followed in producing the report. The technical work was done by the commission's staff. The work of the staff was followed in detail by the Committee on Parks and Recreation. Final study of the report was given by the Commission sitting as a committee-of-the-whole.

The report included a section devoted to school areas. There was a wide variation shown in elementary school areas. High school sites showed a similar variation. Lincoln high school had only 1.37 acres; Washington, 4.85 acres. Later and more modern sites include Franklin, Roosevelt, Jefferson, and Grant, with sites of 17.04, 13.81, 11.33, and 10.19 acres respectively. Grant High
School was shown to be combined with a neighborhood park of 21.27 acres. Benson Polytechnic joined the 9.6 acre Buckman field. The report further explained, (5:9) "The combined school and park unit is economical, efficient, and necessary in a community-centered life."

During the school year of 1934-35, school buildings in school district number one were used 15,984 times for various community and extra-educational purposes.

Recommendations in regard to the use of high school fields was as follows, (5:11)

High schools should provide the basic playfield service for young people in high school. Detached special playfields for young people not in high school, and for adults who engage in field sports, are also necessary.

Field sports require much more space than do other facilities and, therefore, it is often necessary to use available land in detached locations in the interest of economy. A high school site should be twenty or twenty-five acres in area. Special playfields should be larger where practicable.

Siler's Study (14)

In 1936 James Granville Siler made a study entitled "Gymnasium Locker Room Facilities For Boys In High Schools". The purpose of the study was to determine the locker room facilities necessary in the successful administration and supervision for boys in the high school.

The source of data for this study was obtained from two hundred and seventy-two high schools in the states of
Oregon and California, and was obtained by use of a questionnaire.

A summary of Siler's study (14:23) shows that eleven per cent of the schools have no gymnasium locker room, practically all such cases being among the smaller schools.

The ceiling heights of locker rooms vary widely, ranging between six and thirty feet in height. The mean height was found to be eleven feet; the median, ten feet.

Floors in eighty-five per cent of the locker rooms are concrete. The floor area per boy in school ranges from one-half to forty-six square feet. It is interesting to note that the area per boy in the largest class in school ranges from only four-fifths of a square foot in the lowest case to fifty-one square feet in the highest.

The locker room adjoins the instructor's room and the gymnasium floor in fifty-three and fifty-five per cent of the cases respectively.

Seventy-three of the schools use the self-service locker system; however, there is a definite decrease in its use as the schools increase in size up to five hundred boys. There is a definite increase in the choice of the basket locker system as the size of the schools increases.

More than seven per cent of the schools have made no provision for storing gymnasium clothes in the locker room between periods of activity.
In 1938 Herbart Blair made a study which was published under the title, "Physical Education Facilities For The Modern Junior and Senior High School."

The purpose of this study was to determine to what extent the facilities that are provided for the physical education program in our junior and senior high schools conform to the standards that are generally recognized by educators as being necessary to carry out an adequate physical education program.

Blair selected the schools of the states of New York, New Jersey, Massachusetts, and Pennsylvania for his study since those states had requirements for physical education and similar programs more closely allied than any others.

The plans of all high school buildings that were submitted to the state departments of Massachusetts, New York, New Jersey, and Pennsylvania for the years 1927 to 1928 were drawn from the files and sketches made of the provision for physical education in each building. One hundred seven sketches were used. These one hundred and seven buildings were evaluated in two ways. First, using as a measure the standards set up by those who have worked most extensively in this field, it was shown that but few of these buildings merit a high rating for the physical education facilities provided.
Only ten per cent had two gymnasiums although twenty-four buildings enrolled over a thousand pupils; a third of the gymnasiums were located under the auditorium in less than a fourth of them was the ratio of window area to floor area one to five; and much space was used for permanent bleachers. Only in respect to size did the gymnasium conform to the generally accepted standards and even here ten were less than the forty feet in width, given as the minimum and six had a height of less than eighteen feet. The office of the physical director showed a wide variation in respect to size and location.

The widest divergence from the standards was shown in the provision for dressing rooms and showers, especially for girls. Some buildings made no provision for a dressing room while others allowed over thirty-five square feet per pupil in the largest class. There was practically no relation between the size of the physical education classes in these buildings and the number of showers.

As a second measure of the facilities provided, Blair devised a score card (2:54) which was developed with the help of seven state directors, twelve city directors, and twenty-one professors of physical education. This included not only a description of what was considered to be needed for offices, gymnasium and service facilities, but under each of the items into which the facilities were separated
were descriptions of several levels, each level somewhat inferior to the one placed above it. Values were determined first for the three major items, next it was determined for the subdivisions under each of the major items, and then for each of the levels.

Blueprints were made of the one hundred and seven sketches and the facilities rated, through the use of the score card, by four judges and the average of these judgments taken as a final score for each facility. The total score for each building was low, only ten being rated as being worth over 500 out of the total of 1,000 points. This low score was due not only to the lack of certain facilities but because so many of the facilities that were included were at the lower levels. The girls' shower room received the lowest rating of any facility, but departmental offices, the location and light for the gymnasium, storage facilities, boys' showers and sanitary facilities were all scored low for a majority of the buildings.

Probably the most important conclusion reached by Blair from his study was made when he said, (2:160) "Of far greater importance than either a state building code, or a license for architects is that there be more research as to what should be the nature of the facilities provided for physical education."
CHAPTER III

RECOGNIZED STANDARDS

Before the facilities provided for the Portland high schools could be scored, or rated, it was necessary to set up criteria, or standards that would be generally recognized as valid by those who have attained leadership in the field of recreation and physical education. The rather extensive literature included many references to what should be provided for carrying out an effective program within the Physical Education, Athletic, and Intramural Departments. While there is far from general agreement regarding all the facilities they recommend, there is sufficient agreement among the leaders to provide a standard which could be followed and result in a more effective program and a lower cost in building and operation. Building materials used in the facilities are left for further study, so are not included in the criteria.

The Physical Director's Office

Nash (9:249):

A small 8 by 10 foot room should be provided for each physical director together with an outer office for the general public and students. The offices should be conveniently located from the standpoint of supervision, service units, gymnasium floor, and athletic
fields. It should be equipped with shower and toilet facilities for instructors, desks, bookcases, files, chairs, and closets for equipment and supplies.

N. E. A. Committee (11:153):

The office of the physical director is placed where it has command of the entrance to the locker room and ready access to the shower room.

Strayer and Engelhardt (16:72):

The efficient administration of the physical training department depends in large measure upon the location of the offices of the physical directors in relation to the rest of the rooms of the department. The offices should be easily accessible to the gymnasium, dressing rooms, examining room, and athletic field. It should be so located as to permit view of the gymnasium floor from the director's office. Equipment should consist of instructor's desk, instructor's and visitors' chairs, filing cabinet, bookcase, first aid cabinet, and cabinet for storage of basket balls and other gymnasium equipment. Provision should also be made for locker and shower in lavatory for physical director.

Williams and Brownell (18:347):

Efficient administration of the physical education department depends, in a large measure, upon the proper location and equipment facilities. Many directors of physical education agree that offices should be situated between the gymnasium and locker rooms in such a manner that effective supervision of these areas is facilitated.

Number of Gymnasiums

Nash (9:213):

From the standpoint of public school use the problem is the number of gymnasiums for a large school rather than size.
N. E. A. Committee (11:151):

In a school of 900 pupils requiring two periods of gymnasium work, two gymnasiums are highly desirable.

Strayer and Engelhardt (16:70):

When enrollments in high school are planned above 800, separate gymnasiums for boys and girls should be provided. Two gymnasiums may even be necessary in schools from 500 to 700, depending upon the kind of health program which is being advanced.

Williams and Brownell (18:338):

In secondary schools it is essential that separate gymnasiums be provided for boys and girls. Indeed no class enrollment, even of the same sex, should exceed 60 to 75 pupils. Entirely separate gymnasiums are preferable to any plan of dividing the large space into smaller areas.

Location of the Gymnasium

Nash (9:214):

When possible, the gymnasium should be in a separate unit.

N. E. A. Committee (11:147):

The best location is in a wing, or at one end of the building.

Strayer and Engelhardt (16:70):

The gymnasium is preferably located where the room may be flooded with sunlight. The perfect location is on the ground level and at a point which permits of correlation of work on the athletic field with the use of the gymnasium and its auxiliary facilities. Because of the desirability of using both gymnasium and auditorium for a large part of the school day, it is not advisable to plan the gymnasium as a stage for the auditorium.
Williams and Brownell (18:337):

The best place for the gymnasium is in a wing of the building and on the ground floor. While a direct southern exposure is unsuitable for classrooms, it is desirable for gymnasiums.

Size of the Gymnasium

Nash (9:214):

The range of sizes is indicated in the following:

- Minimum: 45 by 60
- Medium: 50 by 80
- Maximum: 60 by 90

N. E. A. Committee (11:149):

Before determining the size of the gymnasium to be adopted, we must determine the size of the average and maximum classes to be accommodated. In schools in which there would be more than 80 pupils at a time, the gymnasium should be divided into two parts, one for boys and the other for girls, or there should be two gymnasiums.

Strayer and Engelhardt (16:70):

The gymnasium room may have a dimension of 40 feet by 60 feet. A larger floor space, 50 feet by 80 feet is preferred. The height of gymnasiums should be 18 feet under all beams and trestles. Where two gymnasiums are planned, it is frequently desirable to so locate them that they may be thrown into one gymnasium for public games.

Williams and Brownell (18:338):

Forty by sixty feet should be regarded as minimum. An area 50 by 80 feet or even 80 by 90 feet is not too large for game program.
Height of the Gymnasium

Nash (9:203):

The range of heights is indicated in the following:

Minimum . . . . 18 feet
Maximum . . . . 22 feet
Advised . . . . 20 feet

N. E. A. Committee (11:147):

The clear height from the floor to the underside of the girders should be not less than 18 feet.

Strayer and Engelhardt (16:70):

The height of the gymnasium should be 18 feet under all beams and trestles.

Williams and Brownell (18:340):

No gymnasium will be satisfactory which is less than 18 feet high.

Locker or Dressing Rooms

Nash (9:242):

The floors should be of such material that they can be hosed. A total of twelve square feet per child should be allowed for the peak load.

Strayer and Engelhardt (16:73):

Dressing rooms permitting of changes into athletic and gymnasium garments should be provided adjoining each gymnasium. These rooms should include provision for regular classes, as well as for visiting teams. All of these rooms should be so located that the passage to the gymnasium floor is made directly.

Williams and Brownell (18:349):

A modern type of construction inserts the offices
of the staff between the gymnasium and locker room. Dressing space should be 12 square feet per pupil for the peak load.

Showers of the Gymnasiums

Nash (9:245):

Boys' showers are usually arranged in batteries without partitions and with individual control. Nine to twelve square feet should be allowed for each shower. The spray should strike at shoulder height and the heads should be firm.

Girls' showers: It has been held in the past that girls demand individual showers either next to their dressing booths or in a special shower room. These are very expensive both from the standpoint of original cost and from that of space. There is a growing feeling that closed shower booths are not necessary and there is considerable evidence that girls prefer open showers and choose to dress in front of their lockers. In the light of the present trend, it would seem advisable to have 20% of the showers of the booth type and 80% open.

The formula relative to number of showers needed is as follows:

Boys: peak load - 10%  
Girls: peak load - 20%  

N. E. A. Committee (11:152):

The showers for boys should be placed in a room without booths and be operated under gang control. There should be one shower for every five boys in the largest class. From some standpoints the ideal arrangement places the accessories on the same floor level as the gymnasium itself.

Girls: Dressing booths are placed three each side of a narrow aisle and screened by curtains. Six dressing booths use one short passageway to the shower booth. There should be one shower for each three girls.
Strayer and Engelhardt (16:35):

Showers should have easy access from gymnasium, swimming pool, and athletic field, the number depending upon probable size of gymnasium classes.

Boys: Individual side showers in separate stalls with drying space adjacent to general locker room. All valves should be of the automatically operative type.

Girls: Individual side showers in nests of compartments consisting of shower space, drying space, dressing space, and locker space.

Williams and Brownell (16:362):

The locker room and the shower room should be separate but adjacent units, on ground floor, with natural light, within easy access to locker rooms, lavatories, gymnasium, and swimming pools. Approximately 12 to 14 square feet of space should be allowed for each shower head, with one shower head for each squad of four, using the largest class as the scheduling basis.

For girls: A definite trend exists toward the adoption of the gang shower plan recommended for boys.

Team Room of the Gymnasiums

Only two authorities seemed to agree on this phase and they did not agree on the visiting team rooms.

N. E. A. Committee: (9:186):

Home team room: This is not essential. It will be much more economical to put a few full length lockers 12 inches by 12 inches by 72 inches in the main locker room and to distribute them to give plenty of dressing space on the benches.

Visiting team room: It is desirable to have a special dressing room for the visiting team provided with benches and hooks or lockers. This
room is located near the entrance and convenient to the shower room. With this arrangement, the visiting teams need not enter the general dressing room and all disputes as to property can be avoided.

Williams and Brownell (18:335):

There is no sound reason why separate locker rooms should be planned for athletic teams if a sufficient number of large lockers capable of holding football or baseball equipment is provided. Visiting team rooms are condemned.

Drying Room

There was no agreement by the authorities on this facility.

Nash (9:247):

Another important service unit is the drying room for athletic clothing, 100 to 175 square feet.

Williams and Brownell (18:355):

Of course some method must be used to dry uniforms overnight.

Lockers

There did not seem to be any general agreement as to the size of lockers.

Williams (20:358):

There should be either a provision of a half-sized locker 12 by 12 by 36 inches for each member of the school, and/or equipment of full-sized lockers for two large classes with basket-lockers for each member of the school. Adequate
locker-provisions for teams will consist of full-sized lockers to permit of all storage of athletic equipment as well as outer garments.

For girls: Either the individual lockers or the box lockers may be used. The box lockers may be used where the street clothes are kept during the exercise period in the dressing booths.

Williams and Brownell (18:340):

The three most commonly used types of lockers are:
1. The individual system
2. The basket system
3. The box locker system

In the individual system a sufficient number of half-size lockers 12 by 12 by 36 inches, or full-sized lockers 12 by 12 by 72 inches are provided for each person using the physical education facilities. Inasmuch as this plan necessitates a large space together with the high relative initial cost, the individual locker system has been supplanted by either the basket or self-service type.

The basket system requires the services of an attendant. The uniforms, when not in use, are stored in a wire basket. Under this system the pupils' clothing is kept in a locker 12 by 12 by 36 inches. In this plan only enough lockers are supplied to care for the largest class.

The self-service or box locker system appears to be gaining in favor for public school use. In this system each student is assigned a small locker 12 inches square in which his uniform is stored. Like the basket system a sufficient number of large lockers are provided to care for the largest class.

Sanitary Features

Williams (20:352):

Toilet facilities should be provided in conjunction with all dressing rooms.
Strayer and Engelhardt (16:36):

Gymnasium dressing rooms, shower rooms should be provided with toilet conveniences. The standards for adequacy are as follows:

Boys' toilet seats . . . one for each 33 boys
Boys' urinals . . . . one for each 15 boys
Girls' toilet seats . . one for each 20 girls
Drinking fountains . . . one for 75-100 pupils
Washbowls . . . . . . one for every 50 pupils

Strayer and Engelhardt were the only authorities making an exact recommendation.

Light for the Gymnasium

N. E. A. Committee (11:144):

Windows of adequate size must be on at least two opposite sides.

Strayer and Engelhardt (16:71):

Natural light--preferred on the two long sides of the room with a minimum of light at the ends.

Williams and Brownell (18:345):

Whenever possible windows should be inserted in the two long sides of the gymnasium, but not on the ends.

Outdoor Areas

Butler (3:161)

The minimum area on which an athletic field can be laid is five acres. Ten to twenty acres are much more satisfactory. It is highly desirable that more than one major game area be provided so the field can be used for two or more activities carried on at the same time.
The Physical Education Curriculum (6:31):

Athletic fields should be equipped with area suitable for all forms of field games such as football, and the various kinds of court games.

Barrett (1:207):

A baseball field with the outfield dual-purposed for any or all of the contact sports requires five acres. A double diamond accommodating four gridirons consumes 9 acres.
CHAPTER IV

DATA RELATIVE TO PORTLAND FACILITIES

Enrollment

There are eleven high schools in the city of Portland with an enrollment for each school (based on January, 1941 registration) as follows:

Jane Addams (Girls only) . . . . . 346
Benson Polytechnic (Boys only) . . 2104
Girls' Polytechnic . . . . . . . . . 826
Commerce (Boys and Girls) . . . . . 1508
Franklin (Boys and Girls) . . . . . 1781
Grant (Boys and Girls) . . . . . . 2406
Jefferson (Boys and Girls) . . . . . 2237
Lincoln (Boys and Girls) . . . . . 1536
Roosevelt (Boys and Girls) . . . . . 818
Sabin (Boys only) . . . . . . . . . 390
Washington (Boys and Girls) . . . . 1702

Jane Addams and Sabin High Schools are special schools and have both, only within the last year, been located in what were formerly elementary school buildings. The facilities under which they operate were not designed for the high school level.

Director's Office*

Benson Polytechnic (Boys):

This office is located off the gymnasium floor and has no view of the locker rooms which are located beneath

*See Drawings in the Following Section.
the gymnasium floor. The room is 17'3" x 13' and contains shower, two desks and chairs. Built-in lockers contain director's equipment and gymnasium game equipment.

Commerce (Boys and Girls):

These two rooms are identical and are located so as to get a view of the locker rooms but no view of the gymnasium. They are 9'7" x 9'1" and contain a desk and a chair. Sanitary facilities are a shower, toilet, and washbowl. There are hooks for clothing.

Franklin (Boys):

This room is located at the end of a hallway adjoining the gymnasium. The locker rooms are beneath the gymnasium, and no view is obtainable for either the gymnasium or the locker rooms. There are no sanitary facilities. The room contains shelves and drawer space for equipment. There is one desk and three chairs. A built-in closet is for the director's clothing. The room measures 12'4" x 10'6".

Franklin (Girls):

This is a 12'4" x 10'6" room located in the girls' locker room; it has no sanitary facilities. There is a desk, one chair, a cot, and built-in cupboard for equipment and supplies. The director has a private toilet
adjoining the girls' shower room. Clothing is hung on hooks.

Girls' Polytechnic:

This room is 14'9" x 12'9" located across the hall from the gymnasium; it has no view of either the gymnasium or the locker room. It has no sanitary facilities. There are a desk and two chairs, shelves and drawers for equipment.

Grant (Boys):

This room is 17'2" x 9'6" and is located off the gymnasium floor. There is no view of the locker rooms which are beneath the gymnasium. Room contains a desk and two chairs. Sanitary facilities are shower, toilet, and washbowl, and the room contains lockers for clothing.

Grant (Girls):

This room is 15'9" x 10'4" and is located across the hallway from the gymnasium. It contains no view of either the gymnasium or the locker rooms. It has a desk and two chairs. Sanitary facilities include a shower, toilet, and washbowl; lockers for clothing.

Jane Addams (Girls):

There is no office for the director.
Jefferson (Boys):

The athletic director has a 10'10" x 9'6" room located in the hallway between the gymnasium and locker room. There is no view of either the gymnasium or the locker room. Facilities include a desk, two chairs, shower, toilet, and washbowl. The coaches have an 11'11" x 9'6" dressing room beneath the gymnasium and adjoining the team locker rooms, which contains lockers, chairs, shower, toilet, and washbowl.

Jefferson (Girls):

There is a 13' x 11' room off the gymnasium floor which contains no view of the locker rooms. It has two chairs, a desk, shelves and drawer space, and a shower, toilet, and washbowl.

Lincoln (Boys):

An 18' x 10' room overlooking the gymnasium contains a desk, two chairs, one 10' x 4' closet, a toilet, and washbowl.

Lincoln (Girls):

The director's office is a 15' x 10' room overlooking the gymnasium only, and contains a desk, two chairs, a cot, a 4' x 4' closet, a toilet, and washbowl.
Roosevelt (Boys):

This is divided into a suite containing the dressing room and a separate room for the office. The dressing room is 13'6" x 11' and contains a shower, toilet, washbowl, and a footbath. The office is 15' x 7'10" and contains a desk, two chairs, and shelves for the director's library. These rooms have a view of the locker room but none for the gymnasium which is above.

Roosevelt (Girls):

This is also a suite of rooms. The dressing room is 13'10" x 11'10" and contains a shower, toilet, washbowl, and footbath. The office is 14' x 11'10" and contains a desk, two chairs, and library shelves.

Sabin (Boys):

The room used here was never intended for a director's office. It is located around the hallway from the gymnasium and locker rooms. It is 10'6" x 10'2" and contains drawers and shelves for equipment. It has no other facilities.

Washington (Boys and Girls):

These rooms are both located so as to look out upon the gymnasium floor and are identical in size, 12'7" x 9'7". They contain two chairs and a desk. There is a 9' x 3'
closet which contains a toilet and shelves for equipment and clothing.

The Washington coaches have a room in the locker section beneath the gymnasium which contains lockers, and a shower. This room is 19'6" x 6'2" and has a view of the locker room.

Kamm Field (Lincoln):

At Kamm Field, there is a director's office and coaches' room, 10' x 9' containing one washbowl, one chair, one rubbing table, small cabinets, and two shelves at one end.
## TABLE I
### GYMNASIUM FACILITIES*

<table>
<thead>
<tr>
<th>School</th>
<th>No.</th>
<th>Location</th>
<th>Size</th>
<th>Height</th>
<th>Lighting</th>
<th>Apparatus Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>1 Wing</td>
<td></td>
<td>95'10&quot; x 77'</td>
<td>18' plus</td>
<td>Both sides</td>
<td>None</td>
</tr>
<tr>
<td>Commerce</td>
<td>1 Wing</td>
<td></td>
<td>96'10&quot; x 61'10&quot;</td>
<td>18' plus</td>
<td>One side</td>
<td>Under bleacher seats at each end; 24' x 21'</td>
</tr>
<tr>
<td>Franklin</td>
<td>1 Wing</td>
<td></td>
<td>119'9&quot; x 65'6&quot;</td>
<td>18' plus</td>
<td>Both sides</td>
<td>None</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>1 Wing</td>
<td>Joins main building</td>
<td>74'8&quot; x 49'8&quot;</td>
<td>18' plus</td>
<td>One side</td>
<td>None</td>
</tr>
<tr>
<td>Grant</td>
<td>1 Separate bldg.</td>
<td></td>
<td>96'6&quot; x 65'</td>
<td>18' plus</td>
<td>One side</td>
<td>Room off floor 18' x 15'</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>1 Wing</td>
<td>Concrete floor</td>
<td>87'6&quot; x 48'</td>
<td>Minus 18'</td>
<td>One side</td>
<td>None</td>
</tr>
<tr>
<td>Jefferson</td>
<td>2 Girls in main (G)</td>
<td></td>
<td>87' x 64'</td>
<td>18' plus</td>
<td>Both sides</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>bldg. Boys in (B)</td>
<td>added wing</td>
<td>96' x 65'8&quot;</td>
<td>18' plus</td>
<td>One side</td>
<td>None</td>
</tr>
<tr>
<td>Lincoln</td>
<td>1 Main building</td>
<td></td>
<td>66' x 54'</td>
<td>Minus 18'</td>
<td>No natural</td>
<td>None</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>1 Wing</td>
<td></td>
<td>89' x 63'6&quot;</td>
<td>18' plus</td>
<td>Both sides</td>
<td>Room off floor 24' x 15'</td>
</tr>
<tr>
<td>Sabin</td>
<td>1 Wing</td>
<td></td>
<td>70' x 50'</td>
<td>18' plus</td>
<td>One side</td>
<td>None</td>
</tr>
<tr>
<td>Washington</td>
<td>2 Main gym in separate bldg.</td>
<td></td>
<td>99' x 50'6&quot;</td>
<td>18' plus</td>
<td>Both sides</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>No. 2 in top floor old frame bldg.</td>
<td></td>
<td>76' x 36'</td>
<td>18' plus</td>
<td>Both sides</td>
<td>None</td>
</tr>
</tbody>
</table>

*See Drawings in the Following Section.*
**TABLE II**

**PHYSICAL EDUCATION LOCKER ROOMS**

<table>
<thead>
<tr>
<th>School</th>
<th>Sq. Ft. (Boys)</th>
<th>Sq. Ft. (Girls)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>2802</td>
<td></td>
<td>Under gymnasium</td>
</tr>
<tr>
<td>Commerce</td>
<td>1302</td>
<td>2636</td>
<td>Adjoining gymnasium</td>
</tr>
<tr>
<td>Franklin</td>
<td>1320</td>
<td>1899</td>
<td>Under gymnasium</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>1378</td>
<td>363</td>
<td>Under gymnasium</td>
</tr>
<tr>
<td>Grant</td>
<td>1378</td>
<td>1761</td>
<td>Under gymnasium</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>1605</td>
<td>1376</td>
<td>Adjoining gymnasium</td>
</tr>
<tr>
<td>Jefferson</td>
<td>(1) 1086</td>
<td>(2) 1130</td>
<td>Above No. 1</td>
</tr>
<tr>
<td>Lincoln</td>
<td>1859</td>
<td>1376</td>
<td>Adjoining gymnasium</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>1788</td>
<td>990</td>
<td>Under gymnasium</td>
</tr>
<tr>
<td>Sabin</td>
<td>178</td>
<td></td>
<td>Across corridor</td>
</tr>
<tr>
<td>Washington</td>
<td>975</td>
<td>1153</td>
<td>Under gymnasium</td>
</tr>
</tbody>
</table>

The Commerce boys' locker room contains two wire mesh cages which are included in their locker room space. One of these cages contains baskets for gymnasium clothing. The Commerce girls' space includes showers and booths, as well as a cage for baskets, all in the same room.

The Girls' Polytechnic locker room space contains a cage for baskets and built-in shelves made from lockers as a substitute for baskets.

The Jane Addams locker room should be used solely for locker space, but a 7'2" metal partition shuts off a 27'6" x 9'5" space which contains girls' toilets for general

*See Drawings in the Following Section.*
school use. There are no lockers or hooks for clothing in this locker room. There is a built-in rack for baskets.

The Jefferson girls' locker rooms do not adjoin the shower room. They are the only locker rooms which do not have a washable floor. The floors are made of hard wood.

With the exception of the Jefferson girls' locker room, all have easy access to the shower rooms. The Jefferson shower room for girls is located on a level between the two locker rooms and is reached by a stairway from each.
## TABLE III
### TEAM ROOMS*

<table>
<thead>
<tr>
<th>School</th>
<th>Sq. Ft.</th>
<th>Location</th>
<th>Visiting Team Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td></td>
<td>Under gymnasium</td>
<td>Use No. 2</td>
</tr>
<tr>
<td>Commerce</td>
<td>(1) 565</td>
<td>Under Main P. E. locker</td>
<td>Use No. 1</td>
</tr>
<tr>
<td>Franklin</td>
<td>(1) 747</td>
<td>Under gymnasium across corridor from P. E. room</td>
<td>Use P. E. locker room</td>
</tr>
<tr>
<td>Grant</td>
<td>(1) 446</td>
<td>Under gymnasium across corridor from P. E. room</td>
<td>Use No. 1</td>
</tr>
<tr>
<td>Jefferson</td>
<td>(1) 394</td>
<td>Under gymnasium across corridor from P. E. room</td>
<td>Only one in the city, 480 sq. ft. Has shower room 7' x 6', also 1 toilet, 1 latrine, and 1 wash-bowl. Contains 34 lockers</td>
</tr>
<tr>
<td>Lincoln</td>
<td>(1) 1859</td>
<td>Same as P. E. room, using one end</td>
<td>Use one end of P. E. room</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>(1) 1788</td>
<td>Same as P. E. room, using one end</td>
<td>Use one end of P. E. room</td>
</tr>
<tr>
<td>Sabin</td>
<td>(1) 89</td>
<td>Same as P. E. room</td>
<td>Have had no home games</td>
</tr>
<tr>
<td>Washington</td>
<td>(1) 750</td>
<td>Under gymnasium separated from P. E. room by wire mesh</td>
<td>Use P. E. locker room</td>
</tr>
</tbody>
</table>

*See Drawings in the Following Section.*
In TABLE III it will be noticed that Jefferson is the only school having a visiting team room. This is not necessary according to the standards; however, in the case of Lincoln and Roosevelt, the competing teams must share the same space. All of the team rooms had easy access to the showers and gymnasium.

At Kamm Field, there is one team room which contains 567 square feet.
# TABLE IV

**BOYS' SHOWER ROOM**

<table>
<thead>
<tr>
<th>School</th>
<th>Size of Room</th>
<th>Showerheads</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>(1) 13’ x 10’3”</td>
<td>6</td>
<td>Individual</td>
</tr>
<tr>
<td></td>
<td>(2) 24’2” x 11’9”</td>
<td>12</td>
<td>&quot;</td>
</tr>
<tr>
<td>Commerce</td>
<td>(1) 12’6” x 8’4”</td>
<td>6</td>
<td>&quot;</td>
</tr>
<tr>
<td></td>
<td>(2) 12’6” x 11’6”</td>
<td>9</td>
<td>&quot;</td>
</tr>
<tr>
<td>Franklin</td>
<td>(1) 16’8” x 15’8”</td>
<td>20</td>
<td>&quot;</td>
</tr>
<tr>
<td></td>
<td>(2) 24’8” x 14’3”</td>
<td>11</td>
<td>&quot;</td>
</tr>
<tr>
<td>Grant</td>
<td>(1) 23’6” x 13’10”</td>
<td>10</td>
<td>&quot;</td>
</tr>
<tr>
<td>Jefferson</td>
<td>(1) 17’10” x 14’4”</td>
<td>13</td>
<td>&quot;</td>
</tr>
<tr>
<td>Lincoln</td>
<td>(1) 17’4” x 12’10”</td>
<td>10</td>
<td>&quot;</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>(1) 43’4” x 10’2”</td>
<td>30</td>
<td>&quot;</td>
</tr>
<tr>
<td>Sabin</td>
<td>(1) 4’ x 4’</td>
<td>1</td>
<td>&quot;</td>
</tr>
<tr>
<td></td>
<td>(2) 4’ x 4’</td>
<td>1</td>
<td>&quot;</td>
</tr>
<tr>
<td>Washington</td>
<td>(1) 17’ x 11’6”</td>
<td>8</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

All of the shower rooms are easily accessible from the physical education locker rooms and the team rooms. The Sabin showers are built in the locker room in one corner. Franklin's No. 1 shower room and Roosevelt's and Washington's shower rooms are constructed of tile. The floors of the Jefferson, Lincoln, and Grant shower rooms are tiled. The others are all concrete.

All showers are fastened around the walls, with the exception of the tiled shower room at Franklin, which has

*See Drawings in the Following Section.*
a center wall of 15-inch thickness jutting out with showers fastened to both sides of the wall, and a four-foot opening to allow passageway from one side of the center wall to the other. All showers have central control of hot water.

At Kamm Field, there is a shower room 9' x 11' with eight showerheads.
TABLE V

GIRLS' SHOWER ROOM*

<table>
<thead>
<tr>
<th>School</th>
<th>Size of Room</th>
<th>Open Showers</th>
<th>Individual Showers</th>
<th>Booths</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commerce</td>
<td>21' x 12'</td>
<td>None</td>
<td>8</td>
<td>24</td>
<td>Individual</td>
</tr>
<tr>
<td>Franklin</td>
<td>24'6&quot; x 15'</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>Individual</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>30' x 13'8&quot;</td>
<td>None</td>
<td>6</td>
<td>19</td>
<td>Individual</td>
</tr>
<tr>
<td>Grant</td>
<td>43'6&quot; x 11'6&quot;</td>
<td>25</td>
<td>2</td>
<td>0</td>
<td>Individual</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>17'8&quot; x 4'8&quot;</td>
<td>None</td>
<td>5</td>
<td>0</td>
<td>Individual</td>
</tr>
<tr>
<td>Jefferson</td>
<td>55' x 17'</td>
<td>None</td>
<td>10</td>
<td>30</td>
<td>Individual</td>
</tr>
<tr>
<td>Lincoln</td>
<td>51'6&quot; x 10'</td>
<td>None</td>
<td>7</td>
<td>28</td>
<td>Individual</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>43'4&quot; x 10'2&quot;</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>Individual</td>
</tr>
<tr>
<td>Washington</td>
<td>21'5'6&quot; x 11'6&quot;</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>Individual</td>
</tr>
</tbody>
</table>

*See Drawings in the Following Section.
All of the girls' shower rooms are accessible to the locker room with the exception of Jefferson. In order to get to the shower room, the Jefferson girls must go up a stairway from the lower locker room and down a stairway from the upper locker room. This makes it necessary to walk on the wooden locker room floors and wooden stairway.

Grant, Roosevelt, and Washington have tiled shower rooms. Franklin's showers are separated by partitions but are open in the front. The other schools all have individually screened showers using either metal partitions or curtains.

The Lincoln and Commerce showers are built into the locker room by partitions. The Jane Addams showers are at one end of the locker room and screened with curtains.
### TABLE VI

#### UTILITY ROOMS*

<table>
<thead>
<tr>
<th>School</th>
<th>Equipment Rooms</th>
<th>Drying Rooms</th>
<th>Rubbing Rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>(1) 35' x 14'</td>
<td>14' x 13'</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>(2) 13' x 12'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) 5'4&quot; x 9'3&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commerce</td>
<td>(1) 9'7&quot; x 6'9&quot;</td>
<td>17'8&quot; x 7'</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>(2) 16' x 10'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Franklin</td>
<td>(1) 9'6&quot; x 6'</td>
<td>17' x 8'</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>(2) 24'6&quot; x 14'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant</td>
<td>(1) 10' x 10'8&quot;</td>
<td>16'10&quot; x 8'</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>(2) 15'9&quot; x 17'4&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jefferson</td>
<td>(1) 7' x 6'</td>
<td>11'11&quot; x 9'10&quot;</td>
<td>16' x 11'</td>
</tr>
<tr>
<td></td>
<td>(2) 16' x 16'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln</td>
<td>(1) 9' x 6'</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>(1) 27'4&quot; x 19'10&quot;</td>
<td>(B) 19'4&quot; x 11'10&quot;</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>(2) 12' x 9'3&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sabin</td>
<td>Use director's</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>(1) 13'5&quot; x 16'2&quot;</td>
<td>15' x 18'</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>(2) 8' x 8'</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) 10'10&quot; x 5'7&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*See Drawings in the Following Section.*
Franklin and Roosevelt have the latest and most up-to-date equipment rooms. Long, deep, wide shelves and deep drawer space give them ample room for all of their athletic equipment. Lincoln and Sabin have poor facilities for equipment storage.

Drying rooms at all but Lincoln and Sabin have been installed, but all could be larger. The drying room at Washington is a room located under the stairway leading up to the gymnasium and has a sloping ceiling. It was not intended for a drying room.

All of the equipment rooms have shelves or cupboards, but the smaller rooms serve more as a place for managers to keep such things as first-aid equipment, pumps for balls, rubbing oil, and miscellaneous manager's accessories.

At Kamm Field, Lincoln has a drying room, 9' x 10'.
<table>
<thead>
<tr>
<th>School</th>
<th>P. E. Lockers</th>
<th>Baskets</th>
<th>Locker Size (inches)</th>
<th>Team Lockers</th>
<th>Size (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>2492</td>
<td>12</td>
<td>12 x 12 x 12</td>
<td>248</td>
<td>36 x 12 x 12</td>
</tr>
<tr>
<td>Commerce (Boys)</td>
<td>172</td>
<td></td>
<td>60 x 12 x 12</td>
<td>35</td>
<td>60 x 15 x 12</td>
</tr>
<tr>
<td>Commerce (Girls)</td>
<td>212</td>
<td>502</td>
<td>36 x 15 x 15</td>
<td>20</td>
<td>60 x 12 x 12</td>
</tr>
<tr>
<td>Franklin (Boys)</td>
<td>112</td>
<td></td>
<td>36 x 15 x 15</td>
<td>60</td>
<td>60 x 12 x 12</td>
</tr>
<tr>
<td>Franklin (Girls)</td>
<td>302</td>
<td></td>
<td>42 x 12 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>110</td>
<td>540</td>
<td>36 x 15 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td>60 x 12 x 12 (shelved)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant (Boys)</td>
<td>139</td>
<td></td>
<td>36 x 12 x 12</td>
<td>270</td>
<td>36 x 12 x 12</td>
</tr>
<tr>
<td>Grant (Girls)</td>
<td>973</td>
<td></td>
<td>12 x 12 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jane Addams</td>
<td>None</td>
<td>72</td>
<td>36 x 12 x 12</td>
<td>228</td>
<td>36 x 15 x 15</td>
</tr>
<tr>
<td>Jefferson (Boys)</td>
<td>132</td>
<td></td>
<td>12 x 12 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jefferson (Girls)</td>
<td>924</td>
<td></td>
<td>36 x 15 x 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>191</td>
<td></td>
<td>36 x 12 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1337</td>
<td></td>
<td>12 x 12 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln (Boys)</td>
<td>1029</td>
<td></td>
<td>48 x 18 x 15</td>
<td>90 at Kamm Field</td>
<td>60 x 15 x 15</td>
</tr>
<tr>
<td>Lincoln (Girls)</td>
<td>496</td>
<td></td>
<td>48 x 18 x 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roosevelt (Boys)</td>
<td>234</td>
<td></td>
<td>36 x 12 x 12</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Roosevelt (Girls)</td>
<td>302</td>
<td></td>
<td>12 x 12 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sabin</td>
<td>225</td>
<td></td>
<td>36 x 12 x 12</td>
<td>40</td>
<td>36 x 12 x 12</td>
</tr>
<tr>
<td>(shelved)</td>
<td>100</td>
<td></td>
<td>58 x 12 x 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington (Boys)</td>
<td>36</td>
<td></td>
<td>58 x 12 x 12</td>
<td>40</td>
<td>36 x 12 x 12</td>
</tr>
<tr>
<td>Washington (Girls)</td>
<td>287</td>
<td></td>
<td>42 x 15 x 12</td>
<td>161</td>
<td>42 x 15 x 12</td>
</tr>
<tr>
<td></td>
<td>445</td>
<td></td>
<td>42 x 15 x 12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE VIII

**SANITARY FACILITIES**

<table>
<thead>
<tr>
<th>School</th>
<th>Toilets</th>
<th>Latrines</th>
<th>Washbowls</th>
<th>Drinking Fountains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Commerce (Boys)</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Commerce (Girls)</td>
<td>3</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Franklin (Boys)</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Franklin (Girls)</td>
<td>0</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>2</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Grant (Boys)</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Grant (Girls)</td>
<td>5</td>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>2</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Jefferson (Boys)</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Jefferson (Girls)</td>
<td>4</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lincoln (Boys)</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lincoln (Girls)</td>
<td>3</td>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Lincoln (Kamm Field)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Roosevelt (Boys)</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Roosevelt (Girls)</td>
<td>4</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Sabin</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Washington (Boys)</td>
<td>4</td>
<td>11</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Washington (Girls)</td>
<td>5</td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

In the table above it will be noticed that Sabin and the Franklin girls have no facilities listed. There are none available in their gymnasiums. The Franklin girls use the general school facilities across the corridor from the

*See Drawings in the Following Section.*
locker room. The Sabin boys have access to two lavatories at each end of the corridor near the locker rooms.
### TABLE IX

**TOTAL OUTDOOR PLAY AREA**

<table>
<thead>
<tr>
<th>School</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>10.40 (Buckman Field)</td>
</tr>
<tr>
<td>Commerce</td>
<td>6.53</td>
</tr>
<tr>
<td>Franklin</td>
<td>9.71</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>2.07</td>
</tr>
<tr>
<td>Grant</td>
<td>2.47</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>14.91 (Grant City Park)</td>
</tr>
<tr>
<td>Jefferson</td>
<td>2.63</td>
</tr>
<tr>
<td>Lincoln</td>
<td>7.67</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>5.02 (Kamm Field)</td>
</tr>
<tr>
<td>Sabin</td>
<td>1.85</td>
</tr>
<tr>
<td>Washington</td>
<td>2.09</td>
</tr>
</tbody>
</table>

The outdoor areas were taken from the Report on Public Recreational Areas, City Planning Commission (Plate 16).

Lincoln High School has no athletic field. Outdoor activities are carried on at Kamm Field which is located one mile from the school. Grant has insufficient acreage but has the use of the adjoining city park. Benson has no outdoor area of its own but adjoins the city-owned Buckman Field.
<table>
<thead>
<tr>
<th>School</th>
<th>Football Fields</th>
<th>Baseball Fields</th>
<th>Track Yds.</th>
<th>Tennis Courts</th>
<th>Handball Courts</th>
<th>Basketball Courts</th>
<th>Soccer Fields</th>
<th>Softball Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>2</td>
<td>2</td>
<td>587</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Commerce</td>
<td>1</td>
<td>1</td>
<td>440</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Franklin</td>
<td>2</td>
<td>2</td>
<td>440</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Grant</td>
<td>2</td>
<td>1</td>
<td>440</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Jefferson</td>
<td>2</td>
<td>1</td>
<td>440</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Lincoln</td>
<td>1</td>
<td>1</td>
<td>294</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>1</td>
<td>1</td>
<td>440</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Sabin</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Washington</td>
<td>1</td>
<td>0</td>
<td>352</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Grant and Benson have no school tennis courts. The courts listed for them adjoin the schools and are city-owned. In addition to the above listed outdoor facilities, Girls' Polytechnic has two volleyball courts.
<table>
<thead>
<tr>
<th>School</th>
<th>Basketball Courts</th>
<th>Volleyball Courts</th>
<th>Badminton Courts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Commerce</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Franklin</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Grant</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Jefferson</td>
<td>2</td>
<td>3 (B)</td>
<td>3 (B)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 (G)</td>
<td>3 (G)</td>
</tr>
<tr>
<td>Lincoln</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Sabin</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Washington</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

In the above table, those schools having more than one basketball court listed are listed in that manner because their gymnasiums are wide enough to play the width of the gymnasium. Washington is listed as having two basketball courts due to the fact that they have two gymnasiums. Washington's main gymnasium is their only one marked for volleyball and badminton.
TABLE XII
PEAK LOAD IN PHYSICAL EDUCATION CLASSES

<table>
<thead>
<tr>
<th>School</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>84</td>
<td>115</td>
</tr>
<tr>
<td>Commerce</td>
<td>42</td>
<td>92</td>
</tr>
<tr>
<td>Franklin</td>
<td>71</td>
<td>62</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>87</td>
<td>112</td>
</tr>
<tr>
<td>Grant</td>
<td>96</td>
<td>31</td>
</tr>
<tr>
<td>Jefferson</td>
<td>62</td>
<td>89</td>
</tr>
<tr>
<td>Lincoln</td>
<td>46</td>
<td>73</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>49</td>
<td>51</td>
</tr>
<tr>
<td>Sabin</td>
<td>78</td>
<td>84</td>
</tr>
</tbody>
</table>

The above figures are based on January 1941 class enrollment.

TABLE XIII
PHYSICAL EDUCATION DIRECTORS AND ATHLETIC COACHES

<table>
<thead>
<tr>
<th>School</th>
<th>P. E. Directors</th>
<th>Athletic Coaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Commerce</td>
<td>1 Boys - 1 Girls</td>
<td>5</td>
</tr>
<tr>
<td>Franklin</td>
<td>1 Boys - 1 Girls</td>
<td>3</td>
</tr>
<tr>
<td>Girls' Polytechnic</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Grant</td>
<td>1 Boys - 1 Girls</td>
<td>5</td>
</tr>
<tr>
<td>Jane Addams</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Jefferson</td>
<td>1 Boys - 1 Girls</td>
<td>5</td>
</tr>
<tr>
<td>Lincoln</td>
<td>1 Boys - 1 Girls</td>
<td>3</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>1 Boys - 1 Girls</td>
<td>2</td>
</tr>
<tr>
<td>Sabin</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Washington</td>
<td>1 Boys - 1 Girls</td>
<td>4</td>
</tr>
</tbody>
</table>


**TABLE XIV**

**INTERSCHOLASTIC ATHLETIC PARTICIPATION 1939-1940**

<table>
<thead>
<tr>
<th>School</th>
<th>Football</th>
<th>Basketball</th>
<th>Track</th>
<th>Baseball</th>
<th>Tennis</th>
<th>Golf</th>
<th>Soccer</th>
<th>Ice Hockey</th>
<th>Cr. Ct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic</td>
<td>144</td>
<td>80</td>
<td>107</td>
<td>86</td>
<td>5</td>
<td>9</td>
<td>44</td>
<td>18</td>
<td>15</td>
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The purpose of TABLE XIV is to show the uses being made of the various facilities in proportion to the size of the student body. The figures show that only a small percentage of pupils make use of the available facilities.
Drawings

The drawings presented here are sketches of the indoor facilities and are not designed after blueprints. Blueprints were not used due to the fact that practically all of the buildings have made changes which would not be shown in the original plans. Equipment rooms, shower rooms, directors' offices, and other features have been added or undergone alterations, so this data would not have been available from the original blueprints.

In the Tables giving the facilities and their various dimensions, actual gross measurements are given. The purpose of the drawings is to show the relative location of the various rooms so that a better understanding of their location and approximate size could be determined.

It was not considered necessary to make sketches of the outdoor areas since they require a certain number of acres in order to meet the recommended standards. Another reason they are not shown is because all outdoor games measurements are standard. The number of acres available would thus determine the number of play areas that can be used for each sport.

In the outdoor areas many games can be played on the field according to the season. In listing the number of football and baseball fields, the writer took into consideration that the fields could be used for both purposes. It
was not considered necessary to show this with drawings.
JANE ADAMS

ONE LEVEL

GYMNASIUM

TOILET

P. E. LOCKER ROOM

BASKETS

GIRLS' MAIN TOILET ROOM

STORAGE

CORRIDOR

SHOWERS
FRANKLIN

1ST LEVEL BOYS

P.E. LOCKERS  TOILETS  SHOWERS

EQUIPMENT  TO GYM  CORRIDOR

DRYING ROOM  SHOWERS  TEAM ROOM

EQUIPMENT

1ST LEVEL GIRLS

P.E. LOCKERS

CORRIDOR

P.E. DIRECTOR

SHOWERS

2ND LEVEL

STAIRS TO BALCONY

BALCONY AND TRACK

GYMNASIUM

CORRIDOR

P.E. DIRECTOR
JEFFERSON
GIRLS
1ST LEVEL

P.E. DIRECTOR
LOCKER ROOM
TO 2ND LEVEL

GYMNASiUM
TO MAIN BUILDING

2ND LEVEL

SHOWERS
STORAGE
JANITOR
STORAGE ROOM

CORRIDOR
TOILETS
P.E. LOCKERS
TO MAIN BUILDING
LINCOLN

ONE LEVEL

[Diagram of Lincoln's one-level layout with labeled areas such as team lockers, P.E. lockers, boys, girls, booth showers, etc.]

TO GYM

GYMNASIUM

BOYS' P.E. DIRECTOR

BALCONY

GIRLS' P.E. DIRECTOR
ROOSEVELT

1ST LEVEL BOYS

- Equipment Room
- Showers
- Toilet
- Drying Room
- Coaches' and P.E. Directors' Rooms
- Locker Room

1ST LEVEL GIRLS

- Equipment Room
- Showers
- Toilet
- Drying Room
- P.E. Directors' Rooms
- Locker Room

2ND LEVEL

- Gymnasium

To Locker Rooms

To Gym and Field
Rating the Facilities

In rating the facilities an attempt was made to secure a means of evaluation which would successfully show the relative merits of each school's facilities. In the light of Blair's study, (2) it was found that the rating sheet used in his study could be applied to the Portland study with but few deviations.

Blair used literature on Standards for the Physical Education department similar to those used in this study. He made a brief description of each facility showing what was considered most desirable as to location, size, lighting and equipment. The most desirable were placed in the first level and the others arranged in what seemed to be a descending order of value, so far as could be judged from the literature on standards.

This score card or rating sheet was then sent to twenty state directors, an equal number of city directors, and thirty professors of Physical Education. Each was asked to determine the value he would give to each of the facilities on the basis of one thousand points as the value of the entire group of facilities.

A wide range of differences was shown in these returns and it was necessary to revise his rating sheet. After four attempts he received replies sufficient to justify use
of the rating scale. He found that for all but a few of the levels, half or more of those who sent in returns were in agreement as to the value.

All of Blair's rating scale could not be used because the Portland system does not have some of the facilities. Also since a recreational problem is the factor in the Portland study, facilities that were not rated in Blair's study had to be added to the evaluation. The Portland facilities did not include such items as the examination room, bleacher space, corrective room, and towel and suit facilities. Also the present study is not concerned with building materials of walls and floors. Lockers, storage rooms, and outdoor facilities are included in the present study.

The writer makes no attempt to give the facilities a numerical rating as in Blair's study. This requires the judgment of one more qualified in the field. The rating of the facilities according to the various levels was followed because in this case the lack of a certain feature in a facility could determine the level at which it was placed and was not beyond the scope of the writer. The facilities not given a place in Blair's scale were rated according to the standards presented in the previous chapter.

Using Blair's scale, (2:62) the ratings are based on the data shown in the previous section which includes the
Portland facilities.

Director's Office

Boys and Girls activities

1. First level--A small well-lighted room about 10 feet by 12 feet, conveniently located for supervision of athletic field, gymnasium, and locker room. Equipped with private shower, toilet, and closet.

2. Second level--Inferior to 1. in one respect. Either permits view of but one activity, or lacks service equipment, or is markedly larger or smaller than 10 feet by 12 feet, or lacks adequate outside window area.

3. Third level--Inferior to 1. in two essential respects: location, or size, or service features, or light.

4. Fourth level--Inferior to 1. in three essential respects.

5. Fifth level--any place to put a desk without regard to the convenience or work of the physical director.

Portland School Ranking

First level--none.
Second level--Jefferson boys, Roosevelt boys and girls, Grant boys and girls, Commerce boys and girls, Benson Polytechnic.
Third level--Washington boys and girls, Jefferson girls.
Fourth level--Franklin boys and girls, Lincoln boys and girls, Girls' Polytechnic, Sabin.
Fifth level--Jane Addams
Gymnasium Facilities

Gymnasium Rooms (Number)

1. First level---Two gymnasiums for a total enrollment of not more than 700.
2. Second level--One gymnasium for each 500 pupils enrolled.
3. Third level---One gymnasium for each 700 pupils enrolled.
4. Fourth level--One gymnasium for schools enrolling less than a thousand pupils.
5. Fifth level---One gymnasium for schools enrolling a thousand or more pupils.

Portland School Ranking

First level---None
Second level--Jane Addams and Sabin.
Third level---None
Fourth level--Girls' Polytechnic, Roosevelt.
Fifth level---Jefferson (two gymnasiums), Washington (two gymnasiums), Commerce, Lincoln, Benson Polytechnic, Franklin, Grant.

Location of Gymnasium

1. First level---Ground floor at, or above, grade elevation; separate unit or wing; south exposure. At a point which permits of close correlation of work on athletic field with the use of the gymnasium.
2. Second level--Integral part of main building with one long side of gymnasium against some other part of the building, otherwise as in 1.
3. Third level---So located that light is inadequate; either less than 20 per cent, or from skylights, or from ends rather than long axis.
4. Fourth level--Stage of the auditorium or auditorium gymnasium, or under auditorium. In any case, so located as to have at least 10 per cent of window area compared to floor area.
5. Fifth level---Hole in the ground under the auditorium or class rooms; less than 10 per cent light.
Portland School Ranking

First level---Jefferson boys, Grant, Franklin, Benson Polytechnic, Washington, Roosevelt.
Second level--Commerce, Sabin, Girls' Polytechnic, Jane Addams.
Third level---Washington No. 2 gymnasium.
Fourth level--Jefferson girls.
Fifth level---Lincoln.

Size and Height of Gymnasium

1. First level---Sixty by ninety feet with height of 20 to 24 feet under all beams and trestles.
2. Second level--50 by 80 feet with height of 20 to 22 feet under all beams and trestles.
3. Third level---45 feet by 70 by 18 to 20 feet.
4. Fourth level--40 feet by 60 feet by 18 feet.
5. Fifth level---Narrower, shorter or lower than 40 by 60 by 18.

Portland School Ranking

First level---Benson Polytechnic, Commerce, Franklin, Grant, Jefferson boys.
Third level---Girls' Polytechnic, Sabin.
Fourth level--None
Fifth level---Jane Addams, Lincoln, Washington No. 2.

Light for Gymnasium

1. First level---Two long sides of the gymnasium exposed to light and air. Window area over 25 per cent of floor area. No skylight.
2. Second level--20 per cent or more window area but from one long axis only.
3. Third level---20 per cent window area, but from side and ends or overhead skylights.
4. Fourth level--Under 20 per cent window area but over 10 per cent.
5. Fifth level---Less than 10 per cent window area.

Portland School Ranking

First level---Benson Polytechnic, Franklin, Grant, Roosevelt, Washington.
Second level--Girls' Polytechnic, Sabin.
Third level--Commerce, Jane Addams, Jefferson boys.
Fourth level--Jefferson girls, Washington No. 2.
Fifth level--Lincoln.

Apparatus Room

1. First level--Adjoining each gymnasium on same floor level with double door opening for piano, mats, apparatus. Approximately 200 square feet; outside windows. Separate provision for storing portable bleachers.
2. Second level--As in 1. except bleachers are stored with apparatus.
3. Third level--Storage room located on different level from that of gymnasium floor or separate from it by passageway or corridor.
4. Fourth level--Only storage space under overhanging gallery.
5. Fifth level--Room 10 feet by 10 feet or less. Too small for large apparatus or seat storage.

Portland School Ranking

First level--None
Second level--None
Third level--Benson Polytechnic, Commerce, Grant, Jefferson, Roosevelt, Washington.
Fourth level--Lincoln
Fifth level--Franklin
(Those schools which are not listed do not have an apparatus room but all of the schools have storage space for gymnasium equipment other than apparatus. This equipment is stored either in a storage room or in the Director's office.)

Service Facilities

Dressing or Locker Rooms

1. First level--Area of 20 square feet dressing and locker space per pupil in largest class. Adjoining gymnasium; width
not more than twice ceiling height; 20 per cent window area; non-slip tile floor; glazed brick tile, or smooth face brick walls; readily accessible from Athletic field.

2. Second level-- Inferior to 1. in one essential respect. Either as to location (up or down stairs), or as to area per pupil, or per cent of window area, or type of walls or floors.

3. Third level--- Inferior to 1. in two essential respects; location, or area, or light, or finish.

4. Fourth level-- Inferior to 1. in three essential respects.

5. Fifth level--- Less than 10 square feet per pupil, less than 10 per cent window area and inconvenient location.

The same requirements are used for scoring both boys' and girls' dressing room facilities.

Portland School Ranking

First level--- Jane Addams
Second level-- Benson Polytechnic, Commerce boys and girls, Franklin girls, Jefferson girls No. 1, Roosevelt boys and girls.

Third level--- Franklin boys, Grant boys and girls, Jefferson boys, Jefferson girls No. 2, Washington boys and girls, Lincoln boys and girls.

Fourth level-- None
Fifth level--- Girls' Polytechnic, Sabin. (Girls' Polytechnic and Sabin have the most serious facility weakness having less than 10 square feet per pupil area. Lincoln girls have no athletic field facilities as the Kamm Field dressing rooms are for boys only.

Team Room (Boys Only)

1. First level--- Space in main locker room for a sufficient number of large lockers so that the equipment issued to team members is safeguarded.

2. Second level-- One or two special dressing rooms of about 200 square feet area, located
near the entrance and convenient to
the showers, for the home team,
visiting team, or both, equipped with
benches and hooks or lockers.

3. Third level---Same floor area set apart for the team
as for the rest of the school. Two
separate rooms as part of the physical
education facilities equipped with
lockers, showers, and toilet facili-
ties, one each for home team and
visiting team.

Portland School Ranking

First level---Lincoln, Roosevelt.
Second level--Benson Polytechnic, Commerce, Franklin,
Grant, Jefferson, Washington.
Third level---Sabin could qualify for this level except
for floor area of which it has but 89
square feet for each room.
(Jefferson is the only school having a specially built
visiting team room with all sanitary facilities included.
Roosevelt has but one locker room and all boys using this
room share it as does the visiting team. However, the
length of the room offers sufficient privacy for the
visiting team while dressing.)

Shower Rooms (Boys)

1. First level---Adjacent to locker room, easy of ac-
cess from gymnasium, swimming pool
and athletic field, separate from
but adjoining locker room through a
drying room; 14 square feet of floor
area for each shower head. One
shoulder height shower for each four
boys in largest class. Non-slip tile
floor and marble or tile walls, 20
per cent window area, copper covered
frame and sash. Adequate ventilation
and drainage.

2. Second level--Inferior to 1. in one essential re-
spect. Either as to location, or
lack of drying, or inadequate size,
or showers, or light.

3. Third level---Inferior to 1. in two essential re-
spects: location, or drying room, or
size, or showers, or light.

4. Fourth level--Inferior to 1. in three essential re-
spects.

5. Fifth level---More than ten boys for each shower.
Portland School Ranking

First level---Roosevelt, Franklin, Grant.
Third level---Commerce, Benson Polytechnic.
Fourth level--None
Fifth level---Sabin.

Shower Rooms (Girls)

1. First level---Easy of access from gymnasium, swimming pool, and athletic field. Separate dressing booth and shower for each girl in the largest class. Under control of instructor with exhaust hoods above each double row of showers. Non-slip tile floors, marble partition walls, 20 per cent window area, copper covered frame and sash. Adequate heat, ventilation and drainage.

2. Second level--Arranged as in 1. except one shower is placed between each two dressing rooms.

3. Third level---Same arrangement as first level for boys.

4. Fourth level--Three or four dressing rooms for each shower head. A minimum of one shower head for each six girls in largest class. Convenience of use, area per pupil, percentage of light, sanitation sacrificed through economy of poor planning.

5. Fifth level---More than six girls for each shower.

Portland School Ranking

First level---None
Second level--None
Third level---Grant, Roosevelt, Washington.
Fourth level--None
Fifth level---Commerce, Franklin, Girls' Polytechnic, Jane Addams, Jefferson, Lincoln.

(Those ranking in the fifth level all showed a lack of sufficient showers per pupil load but would rank in higher levels in regard to other features. Grant, Washington, and Roosevelt have new tiled shower rooms but are in line with the more modern idea of group rather than individual booth showers.)
Sanitary Features

1. First level---Entrance to toilet room from shower as well as locker room. Outside light, tile floors and walls; one toilet for each 15 girls in largest class. One toilet and one urinal for each 25 boys in largest class. One lavatory for each 20 boys or girls.

2. Second level--Toilet room connected with locker room or shower room but not with both. Otherwise as in 1.

3. Third level---As in 2. but one toilet for each 25 girls and one toilet and urinal for each 50 boys.

4. Fourth level--One toilet and one lavatory, irrespective of size of class.

5. Fifth level---Toilet room of school not directly connected with service unit.

Portland School Ranking

First level---Roosevelt boys and girls, Benson Polytechnic.

Second level--Franklin boys, Grant boys, Commerce boys, Washington boys, Jane Addams.

Third level---Commerce girls, Jefferson boys and girls, Grant girls, Lincoln girls, Girls' Polytechnic, Washington girls.

Fourth level--None

Fifth level---Franklin girls, Sabin.

(Commerce girls, Jefferson girls, and Girls' Polytechnic border so close to the required number of toilets for the third level rating they were placed there because of their other features. Washington showed an excessive number of urinals, having eleven.)

Drying Room for Athletic Clothing

1. First level---A room adjoining each locker room large enough to hold drying racks for a day's allotment of clothing for either football, or outdoor hockey. Over-size exhaust ducts and extra radiation to provide rapid drying of clothing and elimination of odors.

2. Second level--Storage space in connection with the physical education department where extra-size lockers for football clothing may be placed.
Portland School Ranking

First level--Benson Polytechnic, Commerce, Franklin, Grant, Jefferson, Lincoln at Kamm Field, Roosevelt boys and girls.

Second level--Washington could be placed in this level, but rather than lockers in their drying space, they have hooks but do not have any special radiation to provide rapid drying. (Sabin has no drying room and Lincoln does not have one for their main building. Roosevelt was the only school having a drying room for girls.)

Additional Portland Facilities

Utility or Equipment Rooms

In the chapter on Standards, there is no material relative to equipment rooms. This is due to the fact that the literature on this facility was not available. Apparatus or storage rooms were considered necessary and the writer assumed that storage rooms also meant rooms where game clothing and equipment could be stored.

All of the schools except Lincoln and Sabin had equipment rooms ranging in size from 9 feet by 11 feet to 19 feet by 12 feet. Only one school, Roosevelt, had a special equipment room for girls. Gymnasium equipment for the girls was stored in the directors' offices in the other schools.

Lockers

This is an essential feature of a good recreational program, but for some reason, not explained in the study, it was not included in the study made by Blair. There is
no agreement as to the size or kind of locker that should be used, as far as could be determined from the literature on standards. Large or full-length 60-inch lockers were recommended for athletic team use, while the 36-inch for street clothes and the basket system was suggested for all other uses. Another type of locker is that in which the student keeps his gymnasium clothing in a small 12 by 12 by 12 inch locker and uses a 36-inch by 12-inch by 12-inch personal clothing locker. This system of lockers has 7 of the small lockers for individual use and one 36-inch locker for general use by those having a class or using the facilities alone. This type of locker system is not good except for class use where only one pupil would be using the large locker.

With the exception of Girls' Polytechnic, Jane Addams, and Sabin, all the schools had a sufficient number of all types of lockers to meet their requirements under the present program. Jane Addams had no lockers and no hooks on the walls.

Outdoor Facilities or Areas

A minimum of five acres, and recommendation for ten acres for a good program, is suggested by the literature on standards. The minimum will allow for a full-sized football field and baseball field with the outfield being used for all the contact sports. A double diamond
accommodating four gridirons consumes at least 9 acres.

Franklin, Benson Polytechnic, and Grant are the schools which have sufficient outdoor area to meet the 10-acre requirement. Girls' Polytechnic, Jane Addams, Lincoln, Sabin, and Washington are below the minimum of five acres. Benson Polytechnic and Grant would not qualify for the minimum level if Buckman Field with 10.40 acres and Grant City Park with 14.91 acres were not adjoining the schools.

Table X was included in the study to show the space available for the outdoor sports. This was considered valuable to the recreation department of the Portland schools in planning an intramural program or in determining the number of pupils that could be participating at any one time.

Table XI was included for the same reason. All the courts listed in this table are now available in the gymnasiums.

Table XIII gives the staff now available for each school.

Table XIV was thought to be essential to show the use being made of the present facilities in addition to the regular physical education classes.
CHAPTER V

SUMMARY AND RECOMMENDATIONS

SUMMARY

This study was undertaken to determine to what extent the facilities that are provided for recreation and physical education in the eleven Portland, Oregon high schools conform to standards for these facilities that have been set up by educators interested in both recreation and physical education. A second purpose was to show what facilities were available so that an enlarged program involving greater pupil participation in recreational activities could be introduced.

Data on the Portland facilities was compiled and drawings made of all the indoor facilities. Standards for evaluation were then determined from the available literature in the field. This was used as one method for measuring. A second method of ranking the schools was obtained by use of a rating scale devised by Blair (2) in a similar study. Blair's scale could not be used in evaluating the outdoor facilities or in evaluating lockers and storage rooms. These were rated according to the recommended standards.

Four of the schools; Lincoln, Girls' Polytechnic,
Sabin, and Jane Addams ranked low in a majority of the rating levels. None of the schools could qualify at the highest level in all facilities. Jefferson boys' facilities ranked highest in the total rankings.

The number of gymnasiums received the lowest rating of any facility. This was due to the size of the student bodies and not determined by the number of pupils using the gymnasiums under the present program. Six of the schools ranked high for the director's office, Jane Addams being lowest with "none". Six schools ranked in the first level in regards to location of the gymnasium; Lincoln ranked lowest. All the schools met the recommended gymnasium height level of plus 18 feet with the exception of Lincoln, Jane Addams, and Washington's number two gymnasium. Eight schools had apparatus rooms but all ranked in the lower levels. This was due to the fact that bleacher space is not available in the Portland rooms. With the exception of Girls' Polytechnic and Sabin, all schools showed a good rating for physical education dressing or locker rooms for the number now using these rooms. Sabin was the only school which ranked low in team room requirements. Sabin showed but two showers for the only low ranking in this item for the boys while Commerce, Franklin, Girls' Polytechnic, Jane Addams, and Lincoln ranked low for the girls. Franklin girls and Sabin ranked low in sanitary features.
With the exception of Washington in the second level and Sabin with none, all schools ranked in the first level for drying rooms. Only one school, Roosevelt, had a drying room for girls' clothing. All of the schools had sufficient rooms for athletic equipment except Lincoln and Sabin. A sufficient number of lockers is available in all schools for all purposes in the present program with the exception of Girls' Polytechnic, Jane Addams, and Sabin. Jane Addams, Girls' Polytechnic, Lincoln, Sabin, and Washington do not have the recommended five acres as a minimum for the outdoor area. Franklin, Grant, and Benson Polytechnic have sufficient acreage to meet the recommended 10 acres for the ideal requirement.

In general there was a wide variation in the facilities. No school had a corrective room or a special examination room. Only two schools, Jefferson and Commerce, have built-in bleachers. Three schools had indoor running tracks, now considered by leading educators as out of place in a modern program.

RECOMMENDATIONS

The findings of this study suggest the following recommendations:

1. Taxpayers have huge investments in the school plants. These plants should be planned more
carefully in future construction plans.

2. Those schools having new facilities in the future should have them conform to the accepted standards.

3. As funds are available, those facilities needing attention most should be remedied first.

4. Since Sabin and Jane Addams are now being used as high schools, their indoor facilities should be equipped to handle a high school program.

5. The present program should be expanded to allow greater use of those facilities which will warrant it.

6. An intramural program should be organized in each school to conform with the facilities.

7. A study should be made of the use of these facilities during the summer and their use by the communities in which they are located.

8. Wherever possible the city of Portland and the schools should organize a year-round co-operative program of recreation.


