planning a better park landscape

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Tables 1-5 were adapted from “Parks: A Manual of Municipal and County Parks,” edited by L. H. Weir.
A community park system represents a large investment, but it is one that pays large dividends by providing recreational areas and equipment for children and adults.

Youngsters who have access to parks can take part in games, sports, crafts, and creative individual play. Adults have the opportunity to take part in either active recreation, like sports or games, or more passive forms of recreation, like concerts, plays, or just sitting in a pleasant environment.

People have more leisure than ever. But leisure in itself is not enough. Parks give both children and adults a means of using this leisure to promote their physical and mental health.

Parks can also be justified by the economic dividends they give a community. Some criticism has been leveled at the practice of removing parklands from the tax rolls. But park and recreation areas increase property values. The presence of a park in a neighborhood raises the value of the whole area. In addition, well-designed parks are important assets to communities that hope to attract industry and tourists.

The term “park” can be applied to various kinds of developments, but in this publication it refers to areas that include space for both active and passive recreation. The term “playground” refers to developments that are designed for active recreation only.

**Laws Governing the Establishment of Parks**

In Illinois, many small communities do not have a public organization for the development of park and recreation facilities, although the community often owns parkland. On the other hand, other communities, through the legal provisions of the state statutes, have established public park and recreation agencies. This publication will be a helpful guide for communities in both of these situations and will stimulate better planning of park and recreational facilities.

The extent of any community’s park development depends on its population’s size, age, and needs, and whether an official public park organization exists. In Illinois, the authority to establish public parks and recreational systems is delegated to communities through state statutes.

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Community residents who wish to form an official park organization should become familiar with the laws and regulations concerning the formation and operation of park organizations in Illinois. Information regarding these laws and regulations is included in Illinois Extension Circular 889, "Laws and Regulations Concerning Recreation in Rural Areas of Illinois," and in "A Digest of Basic Provisions of Illinois Laws Related to Parks and Recreation," published by the Recreation and Municipal Park Administration. The former may be obtained from your county extension adviser or from Information Office, College of Agriculture, Urbana, Illinois 61801. The latter may be obtained from the Department of Recreation and Municipal Park Administration, University of Illinois, Urbana, Illinois 61801.

**Developing Existing Park Systems**

How can communities that have established a public tax-supported park and recreation system transform existing land and proposed acquisitions into park areas that will meet the conditions of modern life? The most obvious solution of this problem is collaboration of the local planning commission, the recreation specialist, and the landscape architect.

The planning commission studies the total community, projects probable changes in total population, and predicts the direction in which urban development will probably take place. On the basis of these studies, the recreation specialist determines the type of recreation programs and services that are required to meet the needs of children and adults. With this information, the landscape architect, in cooperation with recreational personnel and the planning commission, prepares a master plan to guide in acquisition and development of parks on an orderly basis. In the master plan, the landscape architect determines those areas of land best suited for the types of recreation facilities and activities that the recreation specialist has suggested. Such a plan guides the park authority in purchasing land for future needs at a lower price than would be charged after development of the surrounding land.

In tackling problems of park developments, the local park director can make the best use of tax funds if he retains the services of a professional landscape architect. The role of the landscape architect in the design of land and space for recreational uses is essential and it is vital that he work with the recreational specialist or park director. With such team effort, the resulting design not only will be an asset to the community, but will satisfy the need for varied and convenient recreational outlets.
Determining the Type of Park Needed

Parks must be correctly located and recreation systems must be well organized. When considering the types of recreational areas to locate throughout the community, it is important to keep in mind the different needs that exist. First, there is need for areas that are readily accessible for daily use by many people. Second, there is need for less accessible areas with facilities related more to the community as a whole. Finally, there is need for areas outside the community for weekend visits. This latter classification may fall under county or state jurisdiction. After determining the location of a park it is necessary to decide what type of park is needed, based on information about the people it is intended to serve. What is the age group to be served? What is the minimum size needed to serve the population? How large an area should it serve? Table 1 gives the recommended standards for public park and recreation areas.

The neighborhood park should include provisions for children from 5 to 14 years of age. Among the recommended facilities are grass areas for informal games, play equipment, paved courts, a baseball field, possibly a shelter building, and other appropriate landscape elements. The extent to which these facilities can be incorporated into one area is determined by the acreage available.

Most of the following facilities can be included in the community park and playground: grassed areas for field sports, paved areas for court games (basketball, volleyball), tennis courts, swimming pool, recreation building, picnic facilities, space for adult passive recreation, parking areas, and restrooms.

<table>
<thead>
<tr>
<th>Nature of area</th>
<th>Age group to be served</th>
<th>Approximate minimum size</th>
<th>Units needed</th>
<th>Service area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood park and playgrounds</td>
<td>5 to 14 years</td>
<td>6 to 10 acres</td>
<td>One per 4,000 to 6,000</td>
<td>½ mile</td>
</tr>
<tr>
<td>Community park-playground</td>
<td>All groups, but youth especially</td>
<td>15 to 20 acres</td>
<td>One per 20,000 to 25,000</td>
<td>1 mile</td>
</tr>
<tr>
<td>Specialized park and recreation sites</td>
<td>All groups</td>
<td>Variable</td>
<td>Determined by public demand</td>
<td>Variable</td>
</tr>
<tr>
<td>Regional park</td>
<td>All groups</td>
<td>Variable</td>
<td>Determined by public demand</td>
<td>Several communities</td>
</tr>
</tbody>
</table>
This small play space provides a wide selection of imaginative play facilities to stimulate a variety of play experiences ranging from mild fun to daring "safe scares." The space is partially fenced to separate it from more active play areas. The overhead shelter gives added definition to the space which has qualities that promote comfortable, safe play.

Specialized park and recreational sites can include zoos, golf courses, swimming pools, historical sites, or any other facility desired by the public. Roads, paths, parking areas, rest rooms, and other special facilities must be considered in planning this type of park.

Illustrated above is a well-designed park shelter for picnics, quiet play, and craft activities. Its architectural style blends well with the sylvan quality of this park area.
Developing Parks in Conjunction With Schools

In looking over the facilities required for the neighborhood park-playground and the community park-playground, it becomes evident that they are very similar to those needed for elementary and secondary schools. It is logical then to consider the development of these park-playground areas in conjunction with school sites. This is a practical approach which may save money since both generally serve the same neighborhood, but it does not mean that school grounds can take the place of park-playgrounds. Nor should such joint efforts be interpreted as an excuse for the school district to acquire less land than needed because it depends on the park-playground for its play areas. School play areas are deficient when compared with park-playground areas. Usually the ground surface is entirely paved and the equipment is limited. Similarly, the park-playgrounds are deficient in facilities usually required for the educational-recreational programs of a school. But by joint effort each area can complement the other, offering greater recreational opportunities to the public than either one could provide alone.

The adjacent development of schools and parks is not necessarily always desirable, but should only be attempted when there are advan-

Shown above is a multi-purpose game court with shuffle-board markings painted on the concrete. This area also serves as a free play area for other games suitable to a paved area.
tages to the total situation. When park authorities enter such an agreement, they must be firm in resisting efforts of the school district to acquire parkland for expansion of the school's physical plant. This situation has frequently occurred because of population growth. A short-sighted public will readily support such a plan in the conviction that schools are all-important. Where this does happen, it indicates a breakdown in communication and public relations between the park board and the public. The park board should carry on a continuing public information program to sell the public on the social and economic value of parklands by publicizing the recreation programs and the extent of public participation. Such efforts also pay off when bond issues are placed before the public for vote.

Park Areas in Small Communities

In Illinois the greatest need for well-designed park areas is in the small towns and villages. The accepted big-city population-area standards cannot be applied to small villages because of their small populations. But just because the villages are surrounded by open farmland does not reduce the need for parks. Residents of these rural communities have the same needs and drives for recreation as people in cities. The desire of children to play is as great in the rural village as in the city; the desire of young people to participate in organized sports and social activities is as keen; and the desire of adults for spontaneous social contact with others, for relaxation, and for games is the same.

This small park within a water company's property is designed to serve as a passive recreation area adjacent to the town's business district. Trees have been placed to relieve the dominance of the water tower and a small shelter and portable benches are provided.
A small downtown memorial park area incorporates lawn, trees, and sitting areas for a refreshing green open space in the commercial center.

Therefore there can be no justification for the lack of recreational resources in the smaller community.

The lack of population restricts the financial resources of the village. The acquisition of land may also be a problem, but several possible solutions may be considered.

The purchase of land for park purposes can be done legally under the provisions of the Illinois Municipal Code. The legal adviser should suggest which of the provisions of the Illinois law can be used best by the community. Besides purchasing land, the village may receive land as a gift. Before accepting such gifts, be certain the property is usable and that later maintenance will not be excessive. Too often such gifts become tremendous burdens. Another possible source of parkland might be the use of property owned by local utilities. In several central Illinois communities, the local water company has allowed the land around its water tower and pump house to be used as a park.

**Establishing a Planning Committee**

The lack of finances and the difficulties in land acquisition combined with the lack of organized leadership are fundamental problems in park planning for the small community. Perhaps the latter problem might be overcome by the formation of a citizen's council for parks, since experience has shown that leadership for most park developments has come from a group of interested citizens. Its membership should be made up of representatives from each service club, the local garden club, local churches, local schools, and youth organizations such as the Boy Scouts and Girl Scouts. Such an organization should have as its primary function the acquisition and development of local parkland.
The first action of this committee should be to survey the community's need for land acquisition. In a preceding section three different park classifications were discussed along with the facilities commonly provided by each. The council should consider carefully which types of parks to include in its plans and should decide how much land will be needed to accommodate the facilities to be incorporated. It should decide whether parkland already held by the village is adequate or if efforts should be made to acquire more land.

In this preliminary study the council should not only give consideration to present needs, but should also think about needs 25 years from now. It is always cheaper to provide now for the future, rather than wait until the need arises when costs are likely to be much higher. The council should never lose sight of the fact that parks are for people. It is the age of these people, their interests, and the distance they live from the park that will determine the kind of park needed and where it might best be located.

**Conducting a Public Information Program**

Once the needs of the people are established the next problem is how to put these plans into effect. To do this the council should give special thought to a public information program, because even the best plans cannot be assured of success without popular support of the residents and sympathetic interest from the local governing body. To stimulate interest and acquaint citizens with the fundamental purposes and goals of the council, there must be a continuous public education program. Popular appreciation and support will accomplish more than arbitrary decisions and actions on the part of the council or the local governing body.

A successful public information program includes continuous reports and articles in the local newspaper. Urge the publisher to print a series of favorable editorials which could be an important factor in influencing many people. Provide a constant flow of news information to local radio and television stations. Several representatives of the council should be available to tell the park story on radio and television news and public interest programs and at meetings of community organizations.

It would be advisable for the council to form a speakers' bureau. To strengthen their presentation, speakers could use color slides. The slides should show the area or areas designated by the council's survey to be best suited for park development. In addition, slide photographs should be shown of park developments similar to the one proposed locally. Keep in mind that the council has previously determined those
facilities that need to be included in the park-playground. Seek out those park-playground developments that have representative unit elements similar to those the council wishes to include locally. People can grasp the idea much more readily through pictures than from words. From these slides, 8- by 10-inch black and white or color enlargements can be made. These could be used for poster displays in the local bank, in shop windows, and in newspaper publicity.

A public information program might also include publishing leaflets or flyers; constructing a scale model of the proposed area; organizing programs for school children; and conducting poster contests among school children. Throughout your information campaign, stress the point that this park-playground is for the entire community and not for just one segment or age group.

**General Planning Considerations**

One of the real dangers of voluntary development of parkland is that the end result is not always an asset to the community. A few picnic tables scattered here and there and a swing set and teeter-totter in the area hardly make a park. It is evident that these are the result of poor planning which did not meet a community’s recreational needs. Such areas usually have little or no maintenance and quickly become the target of vandalism. The following is a discussion of the general steps in planning necessary to have an orderly and attractive park-playground. This outline is not intended to eliminate the need for professional assistance from a landscape architect in developing your plan. Rather, it should point up the importance of investing in a comprehensive, well-designed plan that can be executed over a period of years as funds become available.

The initial step should be an evaluation of the needs and interests of the people who are to be served by the park-playground. Parks are for people, but before this goal can become a reality the council must know who these people are, their numbers, ages of both men and women, their occupations, and their national origin if one is predominant. These factors are important because the size of the property, its location, and the facilities included are based largely on this data.

An investigation of the people to be served is particularly important in a small community or village. It is likely to have only one park, so the area will probably have to be designed to serve both children and adults. The plan might have to include an area for pre-school children; a play-equipment area for older children; open space for informal games and play activities; space for field games; and a shaded area for story-telling, crafts, and quiet games. It should also provide for
Here are two well-designed, creative play elements which through form, color, and texture allow for a maximum of imaginative play. To a child they could suggest a space ship, a submarine, a castle, or a horse. In all situations they offer a chance to climb, jump, slide, or hide.
passive recreation needs of adults, with landscape features, benches, a
small picnic center, shade trees, and possibly an area for quiet games.
In some rural communities, it is possible for the town square to serve
as the recreational center for adults. If the town square is properly
developed, it can provide opportunities for social contact, quiet games,
or just sitting and relaxing. If this is the case, the park-playground
development might be designed more for children and young adults.

Selecting a Site

Consider topographical features when buying land. This is funda­
mental because the regularity or irregularity of the land will determine
its usefulness for park-playground use. The ideal location of this land
is as near as possible to the center of the population to be served.

Avoid locations along streets with heavy traffic or near railroads,
industrial sites, or other natural or man-made barriers. In other words,
the park should be accessible both by foot and by car, but children
should not have to cross main traffic arteries to reach it.

Preliminary Planning

After land has been acquired, the next step in planning is to design
the area so it will serve the people effectively. There are two prelimi­
inary tasks to be completed before actually deciding on design details.
These two tasks are the project program and the site analysis and
should be dealt with simultaneously.

The project program is a detailed description of the requirements
of the project. Through research, investigation, and consultation with
recreation specialists an accurate program of all requirements for a
successful project can be outlined. It is on this theoretical program
that the design is based.

At the same time the project program is being studied, an analysis
of the site must also be completed. This analysis consists of a topog­
raphical survey and on-the-site observations in an effort to become
familiar with the site and the design problems it will present.

The topographical survey establishes the legal boundaries and
shows road boundaries, wooded areas, streams or bodies of water, and
ground elevations. The ground elevations are shown on a topographic
map as contour lines at a specified vertical interval.

In this topographical survey an investigation of soil structure and
its ability to support the anticipated activities is important. This may
involve the use of soil survey maps and a study of soil profile (a core
of earth taken to a specified depth). As a result of these studies the
The first step in site planning is to make a field site analysis. The survey at the upper left shows existing physical features such as views, buildings, utilities, roads, and the wind direction, and has a sun diagram.

With the information from the field site analysis, the next step is to make a land-use plan indicating the possible locations of the activity areas to be included in the park. An effort should be made to locate each activity on a spot that is topographically suitable so as to preserve the natural features of the land and at the same time reduce costs by keeping grading modifications to a minimum. At this point no effort is made to define the specific form each activity area will assume. More important is the placement of the areas in relation to one another and to the physical features.

In the land-use plan at the upper right, the parking facilities are located on level ground and serve the amphitheater, picnic area, and the hard court games. The hard-surfaced courts are on a level area that is centrally located. The shelter and rest rooms are also placed in this central area. Picnicking has been placed in the shade of the oak woods. The woods and shade of a more remote part of the site have been preserved for nature study. The level meadow provides space for running games.

One step remains before developing the final design, and that is making the schematic landscape plan. Shown at the lower left is such a plan which has followed the land-use plan as a guide for representing each area on the plan according to the actual space it will require. A more efficient use of space was achieved by combining into one the three parking areas proposed in the land-use study. This resulted in a shift of the hard court games to the west. All other areas remained basically the same.
behavior of any particular soil structure can be predicted. On this basis it is possible to determine if the soil will support intense use and to predict its load-bearing qualities.

Observations should include notes about existing vegetation, including trees, shrubs, and ground covers. An evaluation of this vegetation should be made to determine what should be preserved and incorporated into the design and what should be removed. Many times on heavily forested sites the trees grow so close together they become tall, spindly, and poorly shaped. By selective removal of the poorest trees, the better ones can develop their natural form and become handsome additions to the total picture. At the same time notes should be made on what protection will be necessary to avoid damage to the trees during construction.

Special attention should also be given to rock outcroppings, streams, bodies of water, swampy areas, presence or absence of natural drainage patterns, the sun pattern over the property, and the prevailing wind. The site analysis should not be confined entirely to property within the legal boundaries. It should also include study of the areas beyond the park property lines that will influence the design, such as bordering streets and their traffic loads, good and poor views, natural and man-made hazards (cliffs, industrial areas, and railroads). Some of these factors can present hazards that make it necessary to protect not only the users of the park, but also the adjacent private properties.

The person making the field observations should have a print of the survey map mounted on a hard board. He can note pertinent information in those areas on the map that approximate the actual location on the site. When the field analysis is complete, he will have an accurate diagram of all features and factors to refer to as he begins to develop the design.

In addition to the field observations, other information is needed to complete the site analysis. This information is obtained through research. It includes checks on the ownership of the land, determination of easements for both overhead and underground utilities, and an investigation into any reversion clauses in the deed that might limit the types of development placed on the property.

Having noted this information on a base plan, the landscape architect begins to study the organization of space to determine the best use of the land. He refers back to his project program to review facilities that are to be included. He studies the land to determine how to incorporate these facilities and draws out certain activity areas in very general terms. The specific detail of design is not a major consideration in this phase of planning. At this point the major concerns are the
organization of activity areas and facilities, the relationship of one activity area to another, and the best use of land.

Keeping in mind this organization of space, he thinks about isolating age groups so the recreation of older children will not infringe on the play of pre-school children. It is also good to separate the passive from the more active recreational areas. He selects the best location for various facilities in relation to the sun and prevailing breezes and considers the topography of the land to see if it will be satisfactory for each activity. If any modifications will be needed, he then develops a grading plan. This plan is a guide for changing the land surface to accommodate specific activities and to get the best use of space.

Armed with the knowledge of which features are to be incorporated, where they are to be located, and how the ground forms should be changed to accommodate them, the landscape architect is ready to design each of these features and the surrounding area in detail. Space standards for public parks are shown in Table 1, page 5.

While designing the details of these areas, the main goals of the designer are to achieve pleasing appearance, durability, and ease of maintenance. Maintenance of an area begins on the drawing board. Careful thought must be given to each detail of the design to assure that it will still be useful, attractive, and practical 10 years after its construction.

Choosing Materials

Proper design can make a facility easy and economical to maintain. A part of this design process is the choice of materials. The landscape architect realizes the importance of the choice of materials to be used in park-playground design. He must keep in mind the budget within which the park department is operating and also the proper quality of material to be used. Sometimes it is cheaper to choose what might seem to be a luxury because it will be more efficient and less costly over the long run in terms of maintenance and replacement. The park-playground design will include play equipment and facilities, appropriate ground-surfacing material, and landscape plantings and structures.

The play equipment or the area for games will depend on the age group and, to a certain extent, the predominant sex using the facilities. Selected lists of equipment and space requirements are presented in Tables 2 and 3. Choice of appropriate surfacing material for the play area will depend on the type of activity, density of traffic, seasons of use, and safety factors. Selections of material will also be subject to considerations of availability and cost, surface texture and appearance, and ease of installation and maintenance.
Table 2.—Approximate Dimensions and Space Requirements for Small Children's Playground Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Length (feet)</th>
<th>Height (feet)</th>
<th>Approximate space required (feet)</th>
<th>Space required (square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair swings</td>
<td>10 at top</td>
<td>8</td>
<td>20 x 18</td>
<td>360</td>
</tr>
<tr>
<td>(set of 3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chair swings</td>
<td>20 at top</td>
<td>8</td>
<td>20 x 30</td>
<td>600</td>
</tr>
<tr>
<td>(set of 6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kindergarten slide</td>
<td>8</td>
<td>4½</td>
<td>9 x 18</td>
<td>162</td>
</tr>
<tr>
<td>Teeter-totters</td>
<td>12</td>
<td>2</td>
<td>16 x 18</td>
<td>288</td>
</tr>
<tr>
<td>(set of 4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sandbox</td>
<td>6 x 10</td>
<td></td>
<td>12 x 16</td>
<td>192</td>
</tr>
<tr>
<td>to</td>
<td>10 x 12</td>
<td></td>
<td>16 x 30</td>
<td>480</td>
</tr>
</tbody>
</table>

Table 3.—Approximate Dimensions and Space Requirements for Playground Equipment for Children 6 to 10 Years Old

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Length (feet)</th>
<th>Height (feet)</th>
<th>Approximate space required (feet)</th>
<th>Space required (square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circular traveling rings</td>
<td>10 (diameter)</td>
<td>12</td>
<td>25 (diameter)</td>
<td>490</td>
</tr>
<tr>
<td>Horizontal bar</td>
<td>6</td>
<td>8</td>
<td>12 x 20</td>
<td>240</td>
</tr>
<tr>
<td>Horizontal ladder</td>
<td>16</td>
<td>7½</td>
<td>8 x 24</td>
<td>192</td>
</tr>
<tr>
<td>Merry-go-round</td>
<td>10 (diameter)</td>
<td></td>
<td>30</td>
<td>707</td>
</tr>
<tr>
<td>Slide</td>
<td>16</td>
<td>8</td>
<td>12 x 30</td>
<td>360</td>
</tr>
<tr>
<td>Swings (set of 3)</td>
<td>15 at top</td>
<td>12</td>
<td>30 x 35</td>
<td>1,050</td>
</tr>
<tr>
<td>Swings (set of 6)</td>
<td>30 at top</td>
<td>12</td>
<td>30 x 50</td>
<td>1,500</td>
</tr>
<tr>
<td>Teeter-totters</td>
<td>12-15 x 2½</td>
<td>2½</td>
<td>20 x 20</td>
<td>400</td>
</tr>
<tr>
<td>(set of 4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traveling rings</td>
<td>40 at top</td>
<td>14</td>
<td>20 x 60</td>
<td>1,200</td>
</tr>
</tbody>
</table>

Landscape plantings should not be chosen just to beautify the area. Those plantings that are included in the design should be “working” plantings. They should perform a specific function and at the same time they should be carefully selected for qualities that will add beauty.

Some of the functions a plant can serve in a park-playground area include border protection, screening, pedestrian traffic control, space organization and definition, separation of play areas, and shading.

Border protection plantings are generally located along the property lines for one of two purposes. They may simply define the area of the park-playground. Trees spaced along the property line would accom-
Many times a park development using all standard recreational equipment falls short of its potential because the elements are not compatible with one another. In these illustrations, however, a unique land-use design is shown with separate play compartments for each type of equipment. The bottom picture, especially, indicates the structuring that carefully selected tree and shrub forms can afford in developing individual play spaces separated from adjoining equipment. Loose aggregate surfacing is used in all compartments.
plish this. They may also serve as protective plantings between the park-playground and adjacent streets and properties. Such plantings could include large shrubs and trees, depending on the degree of protection required.

In general it is better to leave the views from the park open, rather than solidly enclosed. A screen planting (a solid mass of one type of plant to give the effect of a wall) might be used to obscure an objectionable view or to provide a barrier in areas of potential safety hazards. An ideal shrub for a screen would be tall and narrow, but with heavy foliage to the ground. The height of the screen must be a compromise between the height needed for screening and the limitation of scale given by the area. To function effectively as a visual screen, the planting will have to be at least 6 feet high in order to block any object from view.

For pedestrian traffic control, for space organization and definition, and for separation of play areas, several different planting arrangements might be used. A clipped or unclipped hedge, a group planting, or a screen type of planting using either tall or low plants would be very effective.

In choosing a hedge, select plants that have dense foliage which cannot be seen through and which are able to survive close together. Hedges can either be clipped (formal) or unclipped (informal). The formal hedge requires a great deal of maintenance. If the hedge is being used to control movements of people, it is often advisable to select varieties that have thorns.

Group plantings aid in space definition and organization. The group planting is composed of several different plant varieties. For example, three or four plants that are similar in form, color, and texture can be combined to form the bulk of the planting. Group plantings should be interesting in outline and arrangement. A plant that offers contrast in form, texture, or color, such as a small tree, will add special interest to small groupings.

When shade trees are used, their location must be carefully determined to avoid interference with any special activities or sport areas in the park-playground. The tree planting should include a combination of small, flowering trees with medium and large varieties. Be sure to select trees that grow well in your area. Do not use trees that have "nuisance" litter, such as messy fruit, seed pods, and broken twigs. Do not select trees whose roots are heavy surface feeders. Such trees interfere with the growth of nearby lawn and plantings and cause pavement to heave. Finally, select those that are long-lived and resistant to ice and wind as well as to insects and disease.
In this playing field the designers have utilized the sculptural qualities of earth to create the mounds or berms seen in the left foreground and right background. These mounds serve as a safety device by separating the ball field from the adjacent streets, as a visual screen by masking the confusion of passing traffic, and as an esthetic element on a flat site.

Park furniture, such as picnic tables, waste receptacles, and benches, should be carefully designed to be visually appealing and yet sturdy enough to withstand hard use. This bench meets both requirements.
Using Materials and Equipment

To illustrate how some of these elements might be combined into a design, the following is a list of features (both equipment and plantings) that might be necessary for the proper functioning of a small children's play area and the older children's playground.

The small children's area. In the small children’s area, the ground should be level. However, small mounds or undulations provide opportunities for creative play. The surfacing material should be turf or some material that provides a soft, resilient cushion for falls.

The play equipment should include low-hung swings, a small slide, a sand box, small teeter-totters, and possibly a playhouse. Cut-out figures of nursery rhyme characters can also be included. Provide benches for parents.

It is important that this area be separated from areas used by older children. If ample land is available for the development of the park-playground, the design should allow plenty of open space for a safety zone between the two age groups. If this is not practical, then the use of a well-designed fence or planting may be considered.

Plantings, other than those required to give safety to the area, should be held to a minimum. The only really necessary type of planting would be large trees to provide shade in the area.

Table 2 (page 18) gives the approximate space needed for some small children's playground equipment that might be used. The figures in the column on the far right represent the amount of space required by children when using the equipment.

Playful irregularities of forms, materials, and heights encourage children's natural actions of jumping, climbing, crawling, and hiding. The form and function of the total composition was carefully conceived through a design on paper to avoid a mere accumulation of materials and play elements.
In developing a park as a space for play, there are several different age groups for whom special design considerations and facilities are required. For example, toddlers must be protected from older youngsters. In this case an unobtrusive fence separates the toddler play area from the rest of the park. Appropriate equipment is included along with a large sand box on the left. Sand is also used under the swings; however, the hobby horses are mounted in concrete. The large paved area provides tricycle space.

This playground equipment is located within a large park area that obviously lacks adequate planning and design. The unimaginative equipment is fenced in, giving the appearance of a corral. A better solution for separating different activities could be achieved through planting, more subtle or only partial fencing, and over-all land use planning.
Inexpensive building materials can be effectively used to create play facilities that stimulate the imagination of the child. The upper illustration shows a train constructed from concrete blocks and different types of tile. The lower illustration shows a variety of climbing experiences offered through the use of different sized tile, some of which is sealed to form steps, combined with a galvanized pipe climbing tree and a slide.
This well-designed play area for small children provides for many different types of play activities. The use of sand for a surfacing material eliminates maintenance problems associated with grass. The sand is contained by flowing concrete strips designed as a tricycle “highway.”

What could be more fun than swinging on the garden gate? Here is a gate with a special standing ledge installed on a center pivot for a full circle swing. A concrete platform is used for good footing.
A permanent sandbox that is large enough for several youngsters to use at once is shown here. The concrete blocks are finished off with a wood cap to serve as a sitting area for youngsters. Attractive shade screens also provide overhead enclosure for the area. Notice the benches provided so that mothers can sit close by and supervise their children at play.

A simple play structure that provides an exciting play experience: crawling into the concrete cylinder, climbing up the ladder inside, and then sliding down to earth.
The older children's area. Youngsters ranging from 6 to 14 years will be using the older children's playground. Because of this age range it is desirable to develop a three-division layout that provides facilities for boys and girls in the 6 to 10 age group, boys 10 to 14, and girls 10 to 14. This plan, of course, may be modified because of lack of space.

In general the topography should be reasonably level because the facilities provided for this group include both play apparatus and space for field games. The surfacing material will depend upon the area and its use. It may be lawn or it may be a hard surface material such as asphalt.

The apparatus for youngsters between 6 and 10 years of age should provide an outlet for certain well-known interests, such as climbing, running, hanging by their hands or legs, splashing in water, and molding sand or mud. To meet these needs, include swings, teeter-totters, slides, climbing apparatus, horizontal ladders, traveling rings, horizontal bars, a jungle gym, a merry-go-round, and possibly a wading pool. It is recommended that all equipment be placed at least 15 feet from the nearest building, fence, or other equipment. The space requirements for this age group’s play apparatus are shown in Table 3, page 18.

The apparatus for the older youngsters between 10 and 14 years of age should consist mostly of gymnasium type equipment. For boys this would be horizontal bars, trapeze, and parallel rings. For girls the equipment would be much the same as that described for the 6 to 10 year olds' playground, along with apparatus of the gymnastic type. In this age group, both boys and girls have great interest in organized games and sports. Some of the space requirements for the more popular games are listed in Table 4.

Table 4. — Space Requirements for Organized Games and Sports on Children's (10-14 Years Old) Playgrounds

<table>
<thead>
<tr>
<th>Game</th>
<th>Dimensions of play area (feet)</th>
<th>Approximate space required (feet)</th>
<th>Approximate space required (square feet)</th>
<th>Number of players</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>35 x 60</td>
<td>50 x 75</td>
<td>3,750</td>
<td>10 to 12</td>
</tr>
<tr>
<td>Football</td>
<td>160 x 360</td>
<td>180 x 360</td>
<td>64,800</td>
<td>22</td>
</tr>
<tr>
<td>Handball</td>
<td>20 x 30</td>
<td>30 x 40</td>
<td>1,200</td>
<td>2 or 4</td>
</tr>
<tr>
<td>Horseshoes</td>
<td>30</td>
<td>10 x 40</td>
<td>400</td>
<td>2 or 4</td>
</tr>
<tr>
<td>(between stakes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playground ball</td>
<td>35 x 45 (between stakes)</td>
<td>120 x 120</td>
<td>14,400</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>(diamond)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetherball</td>
<td>6</td>
<td>20 x 20</td>
<td>400</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(diameter)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volleyball</td>
<td>25 x 50</td>
<td>35 x 60</td>
<td>2,100</td>
<td>12 to 16</td>
</tr>
</tbody>
</table>

[27]
Quite different from playground equipment but of equal importance is a level, open area for active, organized games. Where space is limited, this area could be planned to function as a multi-purpose game area. It could serve as a soccer, softball, or touch football field, depending on the season and the interest of those using it.

Tennis courts are only one of the many types of facilities that might be incorporated to provide a wholesome outlet for youthful energies. Although tennis courts are an expensive item, the space can be used for activities other than tennis. In winter the tennis court can be flooded and the resulting ice can serve as a skating rink. In summer the court can also be used as a dance area.
Space requirements for sports and games of older teens and adults are considerably larger than those for children. Facilities for these sports and games are generally not included in the park-playground because of space limitations. They are more feasible in larger parks. Table 5 shows the space requirements for adult games. Remember that the figures in the table are approximate and more or less space may be provided, depending on the land available.

Table 5.—Space Requirements for Organized Games and Sports for Adults

<table>
<thead>
<tr>
<th>Game</th>
<th>Dimensions of play area (feet)</th>
<th>Approximate space required (feet)</th>
<th>Approximate space required (square feet)</th>
<th>Number of players</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseball</td>
<td>90 (diamond)</td>
<td>300 x 325</td>
<td>97,500</td>
<td>18</td>
</tr>
<tr>
<td>Basketball</td>
<td>minimum 35 x 60</td>
<td>60 x 100</td>
<td>6,000</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>maximum 50 x 94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Football</td>
<td>160 x 360</td>
<td>180 x 360</td>
<td>64,800</td>
<td>22</td>
</tr>
<tr>
<td>Handball</td>
<td>20 x 30</td>
<td>30 x 40</td>
<td>1,200</td>
<td>2 or 4</td>
</tr>
<tr>
<td>Horseshoes</td>
<td></td>
<td>10 x 50</td>
<td>500</td>
<td>2 or 4</td>
</tr>
<tr>
<td></td>
<td>(between stakes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shuffleboard</td>
<td>10 x 40 to 50</td>
<td>15 x 50</td>
<td>750</td>
<td>2 or 4</td>
</tr>
<tr>
<td>Soccer</td>
<td>minimum 150 x 300</td>
<td>210 x 330</td>
<td>69,300</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>maximum 300 x 390</td>
<td>(average)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennis</td>
<td>27 x 78 single</td>
<td>60 x 120</td>
<td>7,200</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>36 x 78 double</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Tetherball</td>
<td>6 (diameter)</td>
<td>20 x 20</td>
<td>400</td>
<td>2</td>
</tr>
<tr>
<td>Volleyball</td>
<td>30 x 60</td>
<td>40 x 80</td>
<td>3,200</td>
<td>12 to 16</td>
</tr>
</tbody>
</table>

Finding Additional Assistance

The materials presented in this publication are general ideas which are applicable to most areas of Illinois. Certain modifications and changes will have to be made, depending on local needs, customs, and climate. Geographical location will have a bearing on your approach and the end results. For example, if your community is located close to a forest preserve or state park your needs are considerably differ-
ent from the community with no resources nearby. To assist you further in your planning for parks and playgrounds, the following is a list of agencies and organizations that can provide further information:

National Recreation and Park Association
The Mills Building
1700 Pennsylvania Avenue NW
Washington, D.C. 20006

Department of Recreation and
Municipal Park Administration
University of Illinois
Urbana, Illinois 61801

Extension Landscape Architect
Cooperative Extension Service
University of Illinois
Urbana, Illinois 61801

American Society of Landscape Architects
1000 K Street N.W.
Washington, D.C. 20001

National Safety Council
425 N. Michigan Avenue
Chicago, Illinois 60611