



# UMC GUIDE RECREATION PARKS & LEISURE

University of Missouri-Columbia Extension Division

## Planning Picnic Areas

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Department of Recreation and Park Administration

### Introduction

An important component in the planning of an adequate community park is the construction of picnic facilities. These do not necessarily need to be elaborate or expensive. The extent of development and the types of facilities provided depend largely on the community's ability to finance the project, land availability, and the demand for recreational opportunities.

Too often people are discouraged from picnicking because of inadequate parking spaces, long walking distances to tables, crowded conditions, and many other reasons related directly to the design of the picnic areas. Many of these situations can be eliminated by planning the facility with certain standards in mind.

This guide has been prepared to provide a source of basic principles in the development of a functional and aesthetic picnic ground.

### Roads

The first consideration in planning a picnic ground is the development of an adequate road system. Roads constitute an essential portion of a facility since the ease of access to a picnic area will often determine whether or not it is used to the fullest extent possible. Although the location of roads will be governed by topography, location of picnic sites, the availability of suitable parking space, and other design factors, they should be paved to eliminate dust and mud. In addition, they should also be designed with gentle curves at frequent intervals to help reduce vehicle speed through the park area.

One-way roads usually provide the best traffic-flow pattern in a picnic ground. However, some areas or situations may require the construction of two-way roads. Roadbeds should be 12-feet-wide, not including shoulders, for one-way roads and 22-feet-wide, not including shoulders, for two-way roads. All grades should be less than 10 percent. Post barriers 4-feet-long and 6-inches in diameter should be placed about 4-feet apart and 12-inches above the ground. This is too high for cars to run over, but too low for bumpers to push over.

### Parking

Adequate parking is a must in a picnic ground and should be planned and developed as part of the road system. Without parking facilities, park visitors are forced to park on the side of roads which creates congestion as well as a hazard to the picnickers.

Parking lots should be constructed on a nearly flat surface and paved if possible. Allow 1.5 parking spaces per picnic

table to provide adequate parking. Each space should be 10-feet-wide by 20-feet-deep. The outside boundaries of the parking area and roads should be curbed, or have barriers of some type to prevent random driving through the park or parking on the grass. This practice disturbs the turf, compacts the soil, and causes damage to trees and shrubs. Barriers may be constructed of wood, stone, curbing, or any other durable material. In some areas ditching may be more desirable than



\*Originally written by Charles Denny and Gale Trussell

an upright barrier. It may also be desirable to arrange the parking so that automobile headlights can be used to illuminate some of the tables for evening use.

## Water System

Drinking water should be supplied in all picnic grounds. In most city parks, this merely involves connecting the distribution system to the city water supply. In an area where city water is not readily available, several factors should be considered in the design and construction of a water supply and distribution system. Several locations for suitable well sites should be studied. Once a site is selected detailed plans for construction of the well, distribution system, and water treatment and storage facilities should be completed and approved by the Missouri Division of Health.

Drinking fountains should be provided in each picnic area and located within 150 feet of every picnic site. To provide adequate disposal of spilled water, a trench 6- to 12-inches in depth and with a radius of three-feet should be dug around the fountain and filled with coarse, compacted gravel. In some cases a section of pipe similar to septic tank field pipe should be buried to help divert water away from the area. Fountains should be attractive and fit the site and include a sanitary bubbler and a step for children. The suggested ratio is one fountain for every 30 tables.

## Rest Rooms

A clean, well constructed rest room means good public relations. Dirty restrooms leave bad impressions. The design of these buildings should be in keeping with other architectural designs within the park. They should be aesthetically pleasing and enhance the atmosphere of the park. The rest rooms should be well lighted, well ventilated, designed for minimum maintenance, and comply with local building codes. In addition, all doors and windows should be screened to avoid rodents and insects. Stalls and fixtures should be well mounted or suspended from the ceiling. A central plumbing alley will reduce maintenance.

The following is a general guideline for use in determining the number of facilities to place inside a rest room building: The suggested ratio is one facility for every 35 tables.

### **For Women**

- 1 stool for every 15 picnic tables
- 1 lavatory for every 15 picnic tables

### **For Men**

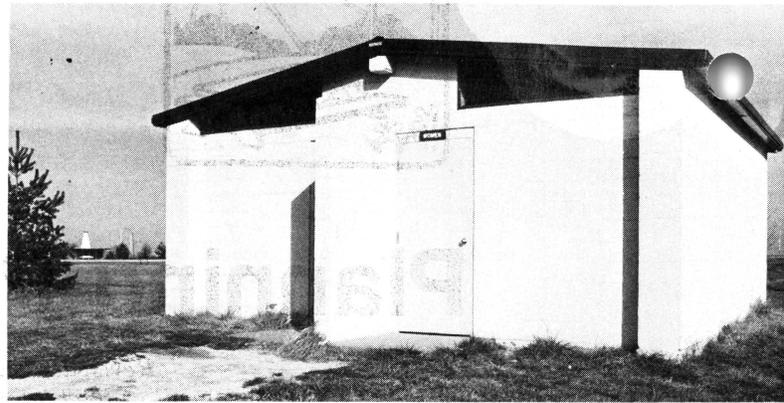
- 1 stool for every 35 picnic tables
- 1 urinal for every 35 picnic tables
- 1 lavatory for every 15 picnic tables

It is desirable to have no picnic sites more than 300 feet from a rest room facility, nor any closer than 75 feet.

An engineer should be consulted for technical assistance during the planning of the sanitary sewer system which will serve these facilities. The Missouri Division of Health should also be consulted during the design phase of the sewer system in order to assure compliance with state health laws and water pollution regulations.

Where it is not feasible to build flush type facilities, or funds are not available, the construction of pit or vault type toilets is the logical alternative. These facilities serve a need in the picnic ground since they contain no plumbing and can be left open all year. As with modern rest room facilities the design of these buildings should be compatible with other

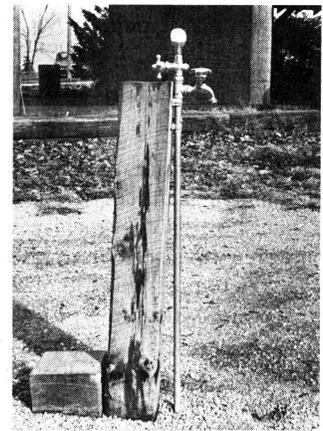
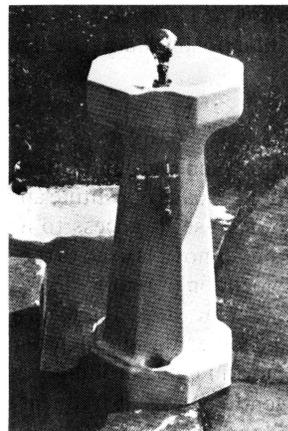
*Picnic areas should have clean, well constructed rest rooms.*



structures in the park and lend itself to ease of maintenance. In a 1960 national survey, only 22% were flush toilets.

Many park boards and park and recreation directors consider restrooms necessary evils. The public demands them, but they are extremely difficult to keep clean, and free from vandalism. Most communities are now agreeing that restrooms cannot be left open unattended, particularly overnight. Another disadvantage is the cost, not including utilities from **\$7,000-10,000**. This makes nonflush type facilities look more attractive. Nevertheless, a clean, well constructed and well maintained restroom usually means good public relations for the city and the park board.

Designs for restrooms are available from the department of recreation and park administration, University of Missouri-Columbia.



*Drinking fountains should be provided within 150 feet of the picnic site.*

## Electrical System

Usually, the only electricity needed in a picnic area is at the picnic shelter and rest rooms, however, some parks may also have street and other lighting. Whatever the case, it is necessary to have an adequate supply of power.

Primary electrical lines are usually located overhead near the perimeter of the park, however, any service lines extended into the park should be underground. Close cooperation between park administrators and the utility company is needed to insure proper installation of these facilities. An engineer should also be consulted to assure the most advantageous location of feeder lines, transformers, and other installations.

## Picnic Sites

While most suggested standards are given in terms of picnic tables per acre, a picnic site can consist of one or more tables, a grill and a refuge container. The site should be relatively flat and well drained, and should have at least 50 to 60 percent of its area shaded during the day. Half of the total number of picnic sites in the park should have only one table and the remaining sites two or more tables since many picnicking groups consist of more than one family.

Most picnic tables (80%) are constructed of wood; while 10% are concrete, and 9.7% are wood and steel, according to the national survey. Most of the tables (70%) are movable while 30% are permanently anchored.

The life expectancy of wood tables and wood and steel (10-12 years) is less than concrete tables (25 years). This makes the cost of concrete tables cheaper over the long run than wood or wood and steel. Forty-one percent of the wood tables in the national survey were treated with pentachlorophenol.

Regardless of material used, a more pleasing, aesthetic setting is created if all the tables in the picnic area are made of the same material and general design. Tables should be designed to accommodate at least four people and secured to a concrete slab to prevent random moving of tables by park visitors. A concrete slab, or gravel pad will reduce soil compaction and puddles.

A national survey showed the following picnic site conditions existed:

- average number of picnic tables per acre—10.5 to 1
- number of picnic sites with water and toilets—80%
- ratio of picnickers per day per acre—220 to 1

While it is desirable for each picnic site to have its own individual grill, the national survey indicated that the average ratio was 20 tables to one grill. The grill provides the visitor a place to build a fire for cooking, for warmth, and confines the fire to a small area which lessens the danger of grass fires.

One refuge container should be provided for every 2 to 4 picnic sites. The container should have a fly tight lid and be lined with plastic bag to prolong its life. An adequate number of containers, strategically located (within 75 feet of the table) can go a long way toward creating a litter-free recreation area. The type of the container, the method of mounting, its condition and placement contributes to the total area appearance. Containers should be fastened so the dogs or other animals cannot overturn them. Lids should be secured so that they cannot be blown or carried away.

## Shelter Houses

Every community, no matter how small, should have at least one shelter house. In larger communities there should be at least one picnic shelter for every 25 picnic sites

These facilities will serve large groups such as family reunions, church parties and civic clubs. They also serve as a shelter to park visitors in bad weather, plus aid summer recreation playground programs.

National standards suggest one shelter house for each 3,000 residents. It should be equipped with lights, electrical outlets, water, and fireplaces if financially feasible.

A recent Missouri survey showed few communities had fireplaces and few of those were used. The survey is available from the Sedalia, Mo., Department of Parks and Recreation.

Ample parking for at least 20 cars should be provided and several refuge cans located nearby. Shelters should be separate from family picnic areas and, if possible, located in a scenic area. It also should be well lighted for night use and within distance of a water fountain and restrooms.

In the national survey, 62% of the communities required reservations for use of picnic shelters. In the Missouri survey, 12 out of 13 required reservations. There was a charge for reservations by one-third in the national survey and by one-half in the Missouri survey. Seventy-seven percent of the park areas reported having a curfew on the use of shelter houses and picnic areas.

Shelter houses should be planned with a cluster design concept. All needed facilities should be located near each shelter house or picnic area. This means each major picnic area should have water, electricity, restrooms, parking, a creative tot lot, several pieces of playground equipment, a small backstop for informal softball, and open space for informal games. This makes each unit self-contained.

Most parents do not like their children crossing the park to play in playground areas. Adjacent play areas eliminates this problem. Playground size and open space areas will, of course, depend upon the amount of space available in the park.

From 10-25% of the picnic area is needed for open space, informal games, tot lots, or playgrounds. While it is not the purpose of this guidesheet to go into detail on playgrounds, it suffices to say that the play areas for children whose parents are attending functions or using picnic shelters is very important to a successful recreation experience.

Additional information on playground design and planning is available in UMC guide sheets and other material. Write to Extension Publications, 206 Whitten Hall, or the Department of Recreation and Park Administration, both at the University of Missouri, Columbia, MO. 65211.

## Park Signing

Bulletin boards provide a convenient means of posting park rules and regulations and other necessary public information. These facilities are low-cost items, but they are important and should be located near areas of visitor concentration such as parking lots and shelters. Interpretation information or a self-guided trail may be appropriate.

In addition to bulletin boards an effective signing program should be undertaken by the park administration. Signs can provide information and directions to park visitors but their use should be held to a minimum. Signs in the picnic grounds should have three- to four-inch lettering and be of the same color and general design as those used throughout the rest of the park. All signs should be well maintained and placed at appropriate locations.

A functional design should have a good circulation pattern and access walks planned to reduce disturbance to other picnickers.

## Landscaping

Landscaping and maintenance of park grounds are other important aspects of developing an outdoor recreation area. The presence, or absence of, shade trees can have a marked effect on the satisfaction of a park visitor's outdoor experience. If trees are present during development every effort

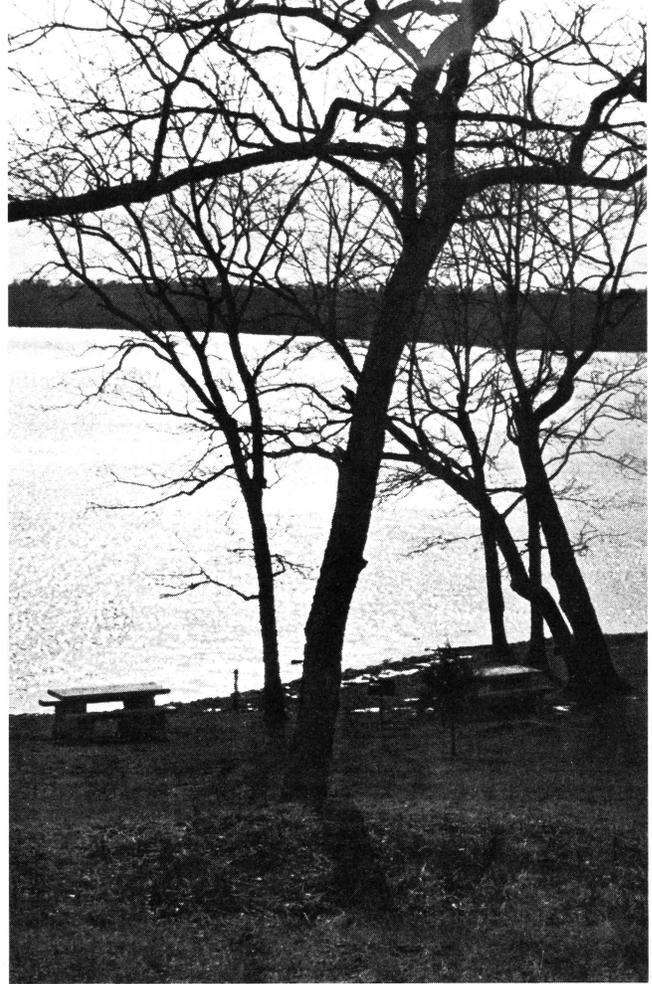
should be made to save trees of different sizes and species to provide shade. The smaller trees will replace the larger ones as they die over a period of years so that the area will always have a good stand of shade trees. If planting is necessary, native species which are resistant to disease and insect attacks are usually best. It is important to adapt the selected species to the site. Planting at random locations, rather than planting in rows, will create a natural appearance.

All park and picnic areas should always appear neat, attractive and inviting. Weeds, briars, and poisonous plants should be eliminated and the areas mowed at regular intervals during the summer months. How much to mow generally depends on the individual sites. If the area is located in a woods setting, mowing may be confined to the site itself, with little or no mowing between sites. If the area is open with widely scattered trees, part of, or the entire area may need to be mowed.

The site should be left as close to its natural state as possible. Care should be taken not to locate tables under the outer edge of a tree's crown, because of potential damage to feeder roots.

For additional information contact the Department of Recreation and Park Administration, University of Missouri, 605 Clark Hall, Columbia, Mo. 65211.

*Landscaping and playgrounds are important aspects of developing attractive and functional picnic areas.*



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