

Backgrounder

Precis of Article Planning a Playground

This article contains suggestions as to the features and aspects that should be considered when planning a playground.

Amongst points discussed are:

The playground as a social centre; needs of differing age groups; sequence of equipment; size of playground; access to the playground; topography; other factors that influence children's attendance; background equipment.

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Department of Youth, Sport and Recreation

PLANNING A PLAYGROUND

It is generally accepted within Australian communities, that playgrounds are needed, but it is often not realised that these facilities must be very carefully planned if they are to be useful, functional and serve the desired purpose.

Sadly, it is all too often that the municipal council frees itself from an obligation by placing a swing, a slide, a round-about and a climbing frame in a grassed park and claims it has provided a playground for the young people in the neighborhood or even in the district. This area is seldom maintained other than having the lawn mowed and its community value is never assessed.

The following are some suggestions as to the features and aspects that should be considered when planning a playground. This is by no way a complete or comprehensive list of factors and it is only meant to stimulate intelligent thought about the planning of a playground.

It also must be remembered that the activities children and adolescents enjoy doing are as follows and thus should be considered in planning the layout and equipment to be incorporated; running, jumping, hopping, skipping, cycling, climbing, crawling, swinging, hanging, balancing, fighting and hiding.

SOCIAL CENTRE

The Playground can be the focal point where the young people meet, interact and experience, often for the first time, unsupervised contact with peers. Parents often bring their young children to the playground to allow them to play while they sit in the sun and relax or socialize with other parents who have also brought their children to the playground. This is a very important stage in a young child's development and no child should be deprived of the activity called "play". So, in planning a playground the facility should not only cater for young children and adolescents but also for the parents. Seats and tables can be arranged in such a fashion that parents can supervise their children from a distance, yet have a chat with their friends also.

AGE GROUPS

As a child grows older his play activities change. His body proportions and strength increase and thus the apparatus and equipment in the playground that he wishes to use must also change in size, shape and form. The grouping of apparatus and activity areas encourages young people to move towards activities and play areas that not only suit his body size but also his activity interest. For example, if a swing has a small clearance from the ground and a small seat, young children will use this piece of equipment in preference to a large swing with a higher clearance and a larger seat. The older children will not

want to use the smaller piece of equipment and thus will not compete for its use if more suitable sized equipment is available.

The bullying process so often seen will be reduced because of the reduction in the competition for any one piece of apparatus. Most equipment has been designed to suit a limited age range and should be grouped accordingly.

FLOW OF EQUIPMENT

How often have we seen five or so pieces of apparatus in a playground evenly spaced with no thought to the flow of children's movement. "Young children tend to spend only short periods of time on the equipment and use a greater variety of equipment; whereas older children seem to use a smaller number of pieces for a longer period". (3) Children want continually to be moving from one piece of apparatus to another so in planning a playground this should be considered. If hills, tunnels, slides and balancing equipment are to be used, then they should be placed so the children can move from one piece of equipment to the next. Congestion at one piece is reduced because these young people move more freely around the equipment with the knowledge that they can return to any piece of equipment that interests them later without fear of having to wait for its usage.

SIZE OF PLAYGROUND

No minimum size can be laid down for a playground as some children will play happily for hours in a 6' x 6' sand pit or a local drain entrance while others will want larger areas to ride bicycles around or have mock battles. Also, municipal councils very often have already set aside areas of land for playgrounds before the planning of a playground is considered. The result is inadequate or unsuitable sites.

The planner must make the best use of what is available, even if it is only a triangular corner of a rectangular block which has an oval on it. Often the council cannot find a use for this corner area so decides it is an ideal site for a playground. Barron(1) set down some suggested standards for playground areas which are as follows:-

- A. Outdoor play spaces in housing areas. 1 space of 100 sq. metres or 20 to 30 houses
- B. Equipped playgrounds in housing areas. 0.20 hectares per 1,000 people or 300 houses.
- C. Kick-about area in housing area. 0.20 hectares per 1,000 people.
- D. Adventure playgrounds. 0.60 hectares per 10,000 people or 3,000 houses.

Tandy (4) suggests the following standards:

Age Group	Land Type	Hectares/1,000 people
0 – 5	play areas	.08
6 - 12	playgrounds	.36
Adults	tennis bowls etc.	.20
All ages	playing fields	1.40
Children	public/school play fields	.06

TOPOGRAPHY

A flat and featureless playground is both visually unpleasing and limits behavioral and play patterns, particularly if it is all grassed or all asphalted. Existing hills, mounds, gullies, creeks, trees and shrubs should be retained if they exist, or be created artificially to give the place some atmosphere, if the site is barren of these features. We must consciously steer away from the gently rounded grassed surface that drains well but is most uninteresting and certainly does not invite young people to explore it. Children like to run, walk, crawl, jump, and hop over uneven and exciting terrains. Varying contours, particularly if well vegetated, can absorb a substantial amount of noise and make the playground more acceptable to neighboring residents. Thus, all natural and existing elements should be preserved and the planting of trees and shrubs of a hardy variety, that can take heavy wear, are essential features in planning a playground.

ACCESS

Dee and Liedman (2) have shown that the distance between a child's residence and the playground is inversely related to that child's use of the playground. The comment is made in Selected Playgrounds (3) that the major cut-off for travel to a playground is about half a mile during the school year. However, during the weekends and holidays children will travel a greater distance because they have a greater amount of free time. They also indicated that the number of street crossings that have to be made is an important factor to consider.

Parents are very conscious of road safety for young children and road crossings often deter parents from allowing children to attend playgrounds. Major roads and waterways act as barriers to attendance at these playgrounds. That is, if a playground is built on a riverbank that does not have a bridge nearby, or a main road, the catchment area for this playground is reduced to 180°. The size of the facility and the stimulation gained from the activities at the playground also affect the attendance and it is for this reason no hard and fast distance can be given. The proximity of other playgrounds naturally has an effect on attendance. If two playgrounds are too close together then they will compete for patronage and thus will reduce the image of one or both facilities.

OTHER FACTORS THAT INFLUENCE CHILDREN'S ATTENDANCE

The number of privately owned swimming and wading pools and backyard swing and slide sets will reduce the number of children who attend a playground as these facilities compete with playgrounds for patronage. This factor is more relevant in economically advantaged residential areas.

It must be remembered that the catchment distance is often measured by, say, a half mile radius from the playground when in actual fact the distances that should be considered are the walking distances around the residential blocks. With the new cul-de-sac developments, walking distances can be up to several times the radial distances and this must be considered when selecting a site for the playground. The construction of laneways between houses often reduces this distance and thus makes the playground more accessible and more popular. Considering parents' needs often influences the number of children who will attend a playground. The research carried out by the Auckland Regional Authority (3) indicates that parents often transported children to large-area parks or district parks while fewer parents accompanied their children to neighborhood parks. Thus larger seats, tables and shaded areas must be provided in neighborhood playgrounds, if we wish to induce parents to bring their children to these facilities.

A playground located next to a public facility, such as a shopping centre or a library is often used by parents as a child-minding centre. This has other implications in that they require the facility to contain their children and also be interesting enough to maintain their interest for a specified amount of time. As a result a large fence is often erected with a gate-lock mechanism which can be opened by adults. Some progressive thinking shopping centre entrepreneurs have built playgrounds near to their centres as an attraction to parents with young children and a few have even gone as far as providing a playground supervisor.

"BACKGROUND" EQUIPMENT"

Firstly, we should discuss some of the essential equipment which is often missing from these facilities, i.e. a toilet block. Children required to return home to use the toilet are less inclined to attend playgrounds.

Too often rubbish bins are not provided at playgrounds. If we are to teach our young people to be clean and tidy and not to litter the environment, then rubbish bins should be an essential feature in a playground.

Drinking fountains must be provided. Children often get thirsty playing active games and if they have to go home to obtain a drink they are less likely to return.

Seats and tables for children as well as adults, should be included in the playground. Children often become fatigued playing and wish to sit quietly for a few minutes before they return to playing. Seats should be provided alternately in sun and shade according to climate.

The drainage of the area should be considered before equipment, is moved on the playground. How often do we see after the smallest shower of rain, the inevitable ditch under the swings and around the roundabout filled with water? As a result the use of the equipment is difficult, if not impossible.

The direction of the sun's rays and the area and length of time the sun covers a particular area are also important when considering the placement of equipment. Cold areas on the south side of obstacles are not often used in winter, as the grass remains almost continuously wet. While, during the summer months (school vacation), small children need to play in the shade under large trees, etc. so that they do not get sunburnt. For this reason deciduous trees are often useful in that they provide plenty of sunny area in the winter and shady areas in the hot summer months.

Shelter areas for parents, as well as children, should also be considered. They need protection from the sun in the summer and wind and rain in the winter. Shelter areas need to be solidly constructed relatively "open" in design and reasonably easily viewed from the street to discourage vandalism by people at night and during times that the playground is not being used.

The responsibility for maintenance needs to be determined before equipment is placed in the playground. Sometimes a local service group, or the municipal council places equipment into a playground and having done their good deed, forget about it and go on with their next project. Poorly maintained equipment is often unsafe and an eye-sore.

Safety railing, fences, gates and building on the site should blend into the natural surroundings. Stark gray brick toilets, iron tubing and wire fences with white posts and rubbish bins give a playground a non-appealing atmosphere. The color and toning of the equipment is very important when you are trying to create an atmosphere. If the playground is to be a vacant building block in a built-up housing area, it need not be a mess or an eye-sore. It can, and should, look presentable. If it is beside a lake or a water course, it should blend with the surrounding environment. It is poor design just to place a standard council yellow rubbish bin at a playground site without giving thought to its color shape or position.

A layout sketch plan should be drawn up before the planners even consider buying or constructing equipment. Perhaps even a scale model could be constructed.

There must be an effort to plan playgrounds instead of furnishing them with leftover equipment and anything that is available at the time. How often do we see an old boat or a disused car in a playground? The first thing that comes to my mind is that some generous person did not want these things cluttering up his yard so he has donated them to the playground.

Buying of playground equipment is not the only avenue or source of equipment. The employment of a grader to build hills, gouge out, gulleys, make ramps and place stones and boulders in strategic places develops a very interesting terrain if pre-planned.

Planners can use treated pine logs to construct all types of equipment from see-saws to balance beams, ladders and forts. The use of old tyres that have been discarded can make swings, cubby houses and roundabouts. They are a cheap source of material and if used and fitted into the total plan for the area can provide a very interesting source of activity.

There are a few principles that must be kept in mind when selecting equipment. These are as follows:-

1. It must be robust and as maintenance free as possible.
2. It must fit in with the environment
3. It should stimulate the child's imagination.
4. It should be as safe as possible.
5. The "moving type of equipment is more popular than the "static" but static equipment also has a place in a playground.
6. Provision should also be made for varying sizes, shapes and strengths of children; one medium sized swing does not cater for the very young or the older children thus arrange of equipment is necessary.

When planning the placement of equipment it should be remembered that equipment should flow from one piece to another and that some equipment must have a safety area around it. For example, swings must have a safety rectangular area around them so that when they are in use they do not interfere with an activity of another piece of apparatus.

Young children like riding bicycles and running around playgrounds so some compacted area should be planned and constructed in addition to grassed and sand pit areas. A chemical treatment may now be used to compact soil for walking, running and cycling.

Sand pits are very popular with younger children and should be constructed to contain the sand so that it does not spread around the whole area and that sand does not have to be continuously replaced. Children often like to play in sand pits with a small select group of friends and thus the total sand pit area should be divided up into compartments of differ different shapes and sizes. Where practicable removable cover s prevent pollution by rubbish and animals.

Parents are very safety conscious. Apparatus must look safe, but it must be realised that if the equipment is to be completely safe, the element of risk and uncertainty is likely to be taken away and as a result the equipment becomes dull and uninteresting. Some safety aspects that can be considered and avoided are deep water, slippery surfaces, sharp edges, splintering wood, insufficient safety area surrounding movable apparatus such as swings and roundabouts, and the avoidance of tower structures for very young children.

Fencing of the facility should be carefully considered. A fence is normally used to prohibit entrance or exit from an area but in the case of a playground this may not be the purpose of the fence. A fence may be needed to contain balls used in ball games, but it should be constructed so that it is not seen as a barrier to entry or exit. The fence may also be meant to stop children riding or running straight out of the playground on to the road and thus a slowing down mechanism may be needed so that entry and exit to the playground is at a controllable speed. Entrance or entrances to a playground must be considered in terms of traffic patterns, both pedestrians and vehicular, shopping facilities, schools and houses. The entrance must be as attractive and inviting as possible. Paths leading from the entrance to activity centres should be planned so that conflict between older children's playing areas and young children's areas is reduced to a minimum, e.g. the older children should not have to pass through the younger children's sand pit area to reach the big swings. The ball games area used by older children should also be away from where younger children are expected to play. The playground and paths should be designed to encourage movement that will reduce conflict activity and interest.

The height of fences needs to be considered. Children playing with balls often lose them over neighbors fences or out on the road. Neighbors can become very irate if children from the playground continually come into their yard trampling in their garden beds to retrieve balls.

The playground should never assume a child-minding function. Parents are responsible for the safety of their children and the playground is meant only as a medium by which the child can experience exploration, challenge and excitement.

Minimum-size areas should be set aside for particular activities such as ball games. Some children will want to use the playground as an open space to kick a football or to practice other ball games. If possible a minimum size area of 15 m x 25 m should be set aside for this purpose.

Some children particularly young children, will bring toys from home to play with in the playground. Hard or compacted surfaces are often needed to wheel toys around and to ride bicycles or tricycles. Attention must be given to control of two-wheel bicycles where young children are not segregated from older children.

Children gain excitement by climbing tall obstacles such as trees, cubby houses, house roofs or constructed rockets. They also obtain pleasure and excitement from objects that allow them to move such as slides, swings, roundabouts and see-saws. In any one area some children will favour particular objects more than others. It is difficult, if not impossible to say that children generally prefer particular kinds of equipment, then list all the equipment in a priority order and use this as the be all and end all for placing equipment in a playground. From studies carried out by the Auckland Regional Authority (1) it can be seen that the popularity of particular pieces of equipment varies from playground to

playground. Some pieces of static equipment prove to be much more popular than moving equipment, particularly if it gives the child a new sensation related to such things as height or balance.

The involvement of a number of people in the planning process is often the most profitable way of producing desirable facilities. A public meeting that is run as a brain-storming session or a discussion group with as many parents and children in the proposed catchment area as possible is valuable in that the people feel that they have been involved in the planning and are thus more likely to encourage the usage of the facility and also keep an eye on the facility to prevent vandalism.

REFERENCES

Barron, M. (2) New Town recreation and Milton Keynes. (2) In Leisure: a new perspective. (3) Canberra, A.G.P.S., 1975.

Dee, N. and Liedman, J. C. A statistical study of attendance at urban playgrounds. *Journal of leisure r research* V. 2, no. 3, 1970.

Selected playgrounds (3) Auckland, Community Activities Department, Auckland Regional Authority, 1972.

Tandy, C. Handbook of urban landscapes (3) London, Architectural Press, 1971.