PROBLEM AND PURPOSE OF THIS DOCUMENT

This interim criteria document provides descriptive information and planning and design guidelines for children's play areas.

The new Technical Manual will provide the criteria to govern the planning and design of children's play areas on military bases and aid in evaluation of such designs.

The manual will be directed towards improving early design decisions and towards the development of realistic, cost-effective solutions in conjunction with the Army regulations and DOD criteria referenced herein.

This manual is also intended to provide general guidance for using service personnel and Corps of Engineers field offices in planning facilities for inclusion in military construction programs.

It is expected that using service personnel will find additional use for this manual in developing improvements or in better utilizing existing facilities.

The uses of this document will vary depending on the user and objectives. Prospective users include:

- Facility Review Office, Master Planning Office, Army Corps of Engineers
- Base Master Planning Office
- Community Services Branch on Base
- Director of Child Support Services/Child Play
- Steering Committee for Planning/Community Participants/Facility Advocate
- Facility Staff/Play Leaders
- Facility Architect/Landscape Architect
- General Services Administration
Potential uses of this document are:

- Informing the uninitiated and stimulating interest
- Communicating basic policies
- Communicating planning and design criteria
- Identifying formats for developing specific architectural programs for particular sites
- Providing evaluation criteria for both design and post-occupancy evaluation studies
- Evaluating product information

The scope of this document is applicable to all new construction projects for children's play areas on military installations. It is also applicable as general guidance to projects involving the modernization of existing facilities.

While this is the basic criteria document for Army play areas, it is not intended to provide all of the information required for successful preparation of project designs.

Additional information must be obtained at the installation level which identifies the unique requirements of local activities and the locational constraints and opportunities of specific sites.

This document, however, presents the overriding planning standards and design principles and criteria which will both guide the preparation of a facility program and the overall direction which design solutions take. It is applicable for the planning and design of new children's play areas and the improvement or modernization of existing ones at the following locations:

- inter-service regional parks
- base-wide parks
- neighborhood parks
- school grounds
- recreation centers
- shopping centers
- child support facilities
- housing areas, including the design of housing itself
- links and networks of play among the above

As this is an interim report, we invite your review and comments.
METHODS USED TO DEVELOP THE CRITERIA

The planning and design criteria contained in this report are derived from a process of information gathering and design based on our earlier work in this field (see Moore, 1975; Moore and Rose, 1976; Cohen, 1978; Cohen and Moore, 1977; Moore, Cohen, and Team 699, 1977; Moore and Cohen, 1978; Moore and Shaw, 1978; and Moore, Cohen, Oertel, and van Ryzin, 1979, in press).

Basically the process has three stages:

- the identification of significant issues about human behavior relative to the physical environment, e.g., the child's need for stimulating outdoor recreation environments close to home

- Review of existing scientific literature bearing on each identified issue, together with review of our own research on child-environment relations, our professional experience, and the results of Task II of this contract, Travel and Research on 50 bases and civilian facilities around the country, e.g., the finding that most children's outdoor recreation occurs in the left-over or undesignated spaces immediately around the home

- Induction of a design idea in response to the information on each issue, together with the specification of particular criteria and recommendations, e.g., the design idea of a "network of play" together with specifications about the character of nodes and links of the network

The final result of this process is a set of 15 major planning recommendations and 56 design patterns, each with supporting research-based information and detailed criteria. Each major planning recommendation and design pattern is comprised of three parts, corresponding to the above three steps in the process:

- behavioral issue being responded to

- information gathered, transformed into an argument in support of the resulting design idea

- the recommendation or pattern together with detailed criteria
A comment about the types of literature reviewed as part of the derivation of the design ideas: over 1200 articles and books were discovered which bear on the design of children's environments. Most of these are by particular authors and report on their research or professional ideas about children's environments. Some of them are descriptions of particular facilities and building types.

The most valuable literature was from the interdisciplinary field of environment-behavior studies, focusing in particular on child-environment relations. Examples include studies of the relative developmental value of traditional, contemporary, and adventure playgrounds, and studies of children's play behavior in undesignated neighborhood settings.

Other literature of slightly less value is from the child development literature and from architectural magazines. The former tends to be the most rigorous research, focusing often on child behavior without relation to the physical environment. The architectural literature tends to be descriptions of facilities, in many cases without specification of behavior. Thus, again, the most valuable literature is on child-environment relations where both sides of the equation are looked at--behavior and environment.

The last category of literature amassed was publicity brochures from manufacturers and distributors of play equipment. Almost without exception, these brochures were found to be useless.

In order to stay abreast of the latest information on child-environment relations and on architecture for children, the project staff has continued to peruse publication lists for new publications, and subscribes to the major newsletters and journals in the field.

Finally, we have reviewed existing Army design criteria and national and state building code requirements as part of the criteria-generation process.
In addition to published information, the project team has amassed over 2400 slides and numerous black and white photographs of children's play behavior and play areas around the world (including Canada, United States--military and civilian facilities--Australia, Germany, Sweden, England).

All of this information is catalogued and stored in the Child-Environment Information Resource Center in our project offices. This Center is open to the public, and requests for information are filled as time permits.

Selected abstracts of authoritative literature with complete bibliographic references are included in Part III(b) of this task (see Hill, Lane, and others, Abstracts on Child Play Areas and Child Support Facilities, Task III(b).
Basically this document is oriented around a series of planning and design recommendations for children's play areas. The recommendations, are subdivided into a number of categories, as represented in the Table of Contents and the accompanying matrix. A summary of important planning and design issues and recommendations and an introduction to new ways of thinking about children, their play, and the role of the physical environment in child development and play precedes the actual recommendations.

The recommendations are in two major sections--planning and architectural design--and are further subdivided into the following categories:

- 100 Program Master Planning
  (e.g., economics and strategies of implementation)

- 200 Physical Master Planning
  (e.g., determining existing and needed parks)

- 300 Physical Planning Decisions
  (e.g., deciding on particular types of play areas needed, and selecting locations)

- 400 Architectural Program Development Process
  (e.g., developing facility programs for specific play areas to be designed)

- 500 Site Organizing Principles
  (e.g., siting facilities, site design and development)

- 600 Design of Activity Spaces
  (e.g., criteria for the overall design of different types of play areas, sports areas, adventure playgrounds, children's gardens, infant spaces, etc.)

- 700 General Design of Play Spaces
  (e.g., design concepts for the overall schematic design of any of the above types of play spaces)
- 800 Site Details
  (e.g., landscaping materials, drainage, storage, etc. to the degree that these are not standard design and landscape design operating procedures, but rather one specific to the developmental needs of children)

Before using any of these recommendations, the user of this document should review the following sections on children's play and children's play areas.

This document has been produced by a group of research and practicing architects who also have degrees and significant experience in the areas of child development and behavior, environment-behavior studies, and facility programming and evaluation. Their experience spans more than a decade of work on all aspects of children's environments, and has included empirical research, professional practice, and design consulting here and overseas. As a consequence, the following guidelines are based on the developmental needs of children, and they grow out of consideration of child development and the role of the physical environment in facilitating that development.

We are concerned with all aspects of children's play behavior—physical play, social play, and intellectual play. As will be pointed out in the next section, most contemporary American playgrounds do not respond equally to each of these three major areas of children's needs. These guidelines, on the contrary, are in response to the whole organism, not just one part, like physical play.

Use of these planning and design guidelines should assure new, innovative play environments for children which will not only be fun to be in but also will have significant developmental and learning potential.
SUMMARY OF IMPORTANT ISSUES AND RECOMMENDATIONS
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OVERVIEW

The aim of the Environments for Play and Child Care Project is to develop a new set of planning and design recommendations for children's outdoor play areas. The recommendations—though general to play across the entire country—are tailored to the needs of applications to U.S. Army bases.

The recommendations are based on the latest research information in child-environment relations, child development, early childhood education, recreation, architecture, and landscape architecture. This research information was supplemented by case studies conducted by the project team at 52 military and civilian sites across the U.S. and in Canada, and by the project team's previous research and professional experience with a range of different playgrounds.

The document has been prepared for all involved with children's environments on military bases—base commanders, administrators, housing planners, facilities engineers, recreation leaders, child-support services personnel, teachers, architects, landscape architects, parents groups, and all others involved in creating good child play facilities.

The recommendations are presented as a series of "patterns," each suggesting a different design idea in response to children's needs and the research information collected, and each further specifying detailed design criteria.

Highlights of the most crucial overriding issues and recommendations follow.