Denver Play Area Master Plan
A Citywide System of Play

March 2008
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Prepared by

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BACKGROUND AND CONTEXT

Children’s play areas are a core service of Denver’s park system. From pocket parks to large-scale settings, play areas of all sizes give children across the City the opportunity to explore, engage and enjoy the world around them. In order to ensure that the City provides its residents with a vibrant, equitable and sustainable network of play areas, the Denver Parks and Recreation Department developed this Denver Play Area Master Plan. The Master Plan serves as a guide for City staff in the planning, design, management and construction of diverse play areas, and it helps the public understand the vision behind Denver’s System of Play.
This Master Plan identifies opportunities and outlines the basic requirements for each type of play area. In addition, this document works in concert with Denver’s Park and Recreation Game Plan, the overarching strategic plan for the City’s parks, recreation facilities and natural open spaces. The findings and recommendations included in this Master Plan conform to the broader mission and direction established in Game Plan.

The Master Plan document is divided into the following sections:

I. Introduction
Provides a definition of play, a description of the importance of play spaces and an understanding of the current trends in play area design.

II. The Current State of Denver’s Play Areas
Summarizes recent surveys evaluating the longevity, accessibility and safety of Denver’s play areas; presents findings from public surveys determining how people currently use play areas and the type of features they want to see in the future.

III. A System of Play for Denver
Outlines the criteria and requirements necessary for planning, designing and managing play areas—from establishing policies to determining the type and location of particular play settings.

IV. Play Improvement Priorities and New Play Areas Development Criteria
Identifies Denver play areas most in need of improvement and details the process for locating new play areas.

V. Implementation Strategies
Suggests strategies for implementing the proposed policies and guidelines.

Details the citywide benefits from implementing the Master Plan.

By following the guidelines put forth in this Master Plan, the City can create a system of play that im-
proves the health and wellbeing of the citizens of Denver and enhances the quality of life and economic vitality of the City.

I. Introduction

What is Play?
Play is fun and joyful—it refreshes and energizes us and it makes our burdens feel lighter. But play is much more than amusement—for centuries, thoughtful observers have recognized play as integral to both childhood and adult life. Play shapes our brains, opening us to new possibilities and making us more adaptable to new situations. Like nutrition and sleep, play is a central element in determining our health, wellbeing, creativity and intelligence. Our success as an innovative culture rests on our recognizing the importance of play and allowing play into our daily living.

The Importance of Play Spaces
Children need to play. They also need places to play—safe, stimulating environments that help them grow physically, intellectually and emotionally. Play spaces are critical settings for health and human development. A well-designed, well-managed play area should provide children with the following developmental opportunities:

- Opportunities for Motor Skill Development
- Opportunities for Decision Making
- Opportunities for Learning
- Opportunities for Dramatic Play
- Opportunities for Social Development
- Opportunities for Fun

Current Trends in Play Area Settings
The Master Plan identifies three main trends in play area planning and design: ecological perspective, context-driven approach, and health considerations.

- **Ecological Perspective** Children suffer from a lack of access to the natural world. In response, ecological considerations have become important factors in the design, construction and maintenance of play areas.
• **Context-Driven Approach**
Innovative play areas provide opportunities to incorporate art and custom features that reflect local history, culture and the natural environment.

• **Health Considerations**
Different play opportunities provide dynamic settings to improve children’s health, addressing conditions such as asthma, obesity and less active lifestyles. Each of these trends is in accordance with the vision and goals set by Game Plan and are compatible with the guidelines and criteria in this Master Plan as well. The trends also helped to inform the City’s play area surveys, which are addressed in the following section.

II. The Current State of Denver’s Play Areas
In order to get a clear sense of the state of Denver’s play areas, City staff compiled inventories of the entire play area system to determine the age of play equipment and whether it meets current safety and accessibility guidelines. Staff also solicited feedback from the public to identify how citizens of Denver currently use play areas and the recreational opportunities they would like to see provided for their children.

Findings from the internal surveys and public feedback are included in the Master Plan itself as well as in the Appendices. The results of the surveys point to several key conclusions:

• Park play areas continue to be significant recreation spaces for children.
• Providing safe pedestrian and bicycle access to these play areas is essential. This point in particular dovetails with the goals set for the City of Denver in Game Plan and should be emphasized when planning and designing parks and play areas.
• Updating and replacing older and deteriorating play area structures will significantly improve the safety and accessibility of play areas as well as improving parents’ perceptions regarding overall park maintenance.
executive summary

III. A System of Play for Denver
Following the analysis of Denver’s play areas, the Master Plan provides a description of the planning process and a set of policies and guidelines to assist in the planning, design and management of play areas. The Master Plan outlines a clear approach for achieving Denver’s vision of a rich and diverse system of play areas. This approach entails:

- Defining the play area user groups and their needs
- Setting citywide play policies
- Establishing performance requirements
- Presenting play settings design guidelines
- Describing the planning and design process
- Defining criteria for play areas by park type
- Suggesting a range of implementation strategies

A Vision for Denver
The City of Denver will design a system of play areas that provide a variety of site specific play experiences distributed equitably throughout the City that express the individual character of each neighborhood. These new and renovated play areas will meet the play and learning needs of Denver children.

The Play Area, User Groups and Their Needs
Children of all ages, their family members and their caregivers use play areas—alone or in groups. Each type of user has different needs and expectations of how a play area must function. User groups include:

- Infant/Toddler (birth to 2 years)
- Preschool (3–4 years)
• **Elementary School** (5–12 years)
• **Adolescence** (13–17 years)
• **Parents and Caregivers**
• **Recreation and Play Leaders**
• **Maintenance and Management Staff**

**Citywide Play Area Policies**
The City’s Play Area policies respond to the user groups and their needs in a comprehensive manner. The citywide play area policies contained in the Master Plan provide a framework for the creation of new Denver play areas and the renovation of existing play areas. By adopting these policies, the City can ensure a wide variety of play area types, sizes, geographic locations, activity settings and facilities that reflect the vision and values of Denver. Specifically, these policies build on the four values put forth in Game Plan as most important for the City’s parks and recreation system, namely, a sustainable environment, equity in facilities and services, community engagement, and sound economics.

• **The Right to Play** A primary child’s right is the right to play, which includes the right to a stimulating, developmentally appropriate environment.

• **Accessibility and Walkability** Play areas and play opportunities should be designed to be accessible and walkable for all ages and abilities.

• **Connected Parks and Open Space** Every park and play area should be connected to every other park by a “green” circulation system.

• **Variety of Compelling Destinations** Each play area should provide a different experience so that the system provides an exciting and diverse set of activities for all age groups and ability levels.

• **Access to Nature and Urban Wildlife** It is essential for healthy human development to interact authentically with nature.

• **Sustainability and Ecological Appropriateness** Good design maintains and respects
all natural features of the site when feasible.

- **Base Designs on Activities**
  Play areas should be designed around activities that are needed or wanted in the play area.

- **Site-specific and Context-Sensitive Design**
  Play areas should be designed to fit the character of each specific site.

- **Community Involvement**
  Play area design should include meaningful community involvement that includes adults, children and youth, maintenance staff and recreation leaders.

- **Maintenance Standards**
  Each play area design must provide for on-going maintenance by incorporating materials and facility maintenance standards and requirements as part of the design process.

- **Adequate Funding and Resources**
  Play area design is complex. In order to create a high quality system of play, adequate funding is required.

- **Change Over Time**
  Neighborhoods change over time and play area design must take this into account.

**Play Area Performance Requirements**
Following the presentation of Denver’s overarching policies, the performance standards in this document guide the development of play areas in any public space, including parks, greenways, play streets, trails and natural areas. Play areas using these performance standards will be judged on the quality of spaces created.

The performance requirements are structured to respond to three primary needs:

- **Behavioral Needs**
  Addressing human, cultural, social and biological factors.

- **Ecological Principals**
  Creating healthy habitats and ecosystems.

- **Management Criteria**
  Managing play value, ability to program for play, safety codes and risk management strategies.
Play Area Settings Guidelines

While the citywide policies and performance requirements address the overall needs of Denver’s system on a policy level, the Guidelines provide a method for bringing those policies into the design process. The concept of the play setting is a means of integrating behavioral needs and physical requirements into the design process. Play settings are defined by the grouping of activities and the physical environments that support them. Play settings are flexible—their type and number vary depending on the type of park.

The Master Plan provides detailed descriptions of the following play settings:

- Entrances
- Pathways and Circulation
- Manufactured Play Equipment Settings
- Water Play
- Sand Play
- Multipurpose Games Areas
- Gathering/Meeting/Working/Picnicking Places

- Garden Settings
- Trees and Plants
- Play Props and Manipulative Settings
- Special Features/Non-Manufactured Equipment
- Stage Settings
- Landforms and Topography
- Signage
- Animal and Wildlife Settings
- Storage
- Fences and Enclosures
- Support Settings

Planning and Design Process for Denver’s Play Areas

To properly apply the policies and guidelines, the Master Plan proposes a planning and design process that includes the community, maintenance staff and recreation staff in specific ways to ensure the most appropriate design:

- Selection of the most strategic site.
- Community involvement in design
- Involving maintenance and recreation staff
Play Area Requirements by Park Type
The Denver Park and Recreation system features six types of parks: Pocket Parks, Neighborhood Parks, Community Parks, Regional Parks, Mountain Parks and Gulch Parks. This document also includes two new play area typologies, Play Streets and Natural Areas, which have not traditionally been part of the park system. For each park type, this section includes a detailed description, makes suggestions for play area location and size, discusses appropriate play settings, addresses operations, maintenance and cost concerns. Play Area design diagrams for the most common Denver park types complete the section.

IV. Play Improvement Priorities and New Play Areas Development Criteria
Prioritizing improvements to existing play resources and deciding how new play areas should be added is an essential component of the System of Play for Denver. This section explains the criteria used to evaluate each play area and suggests a criteria ranking by park for these improvements. In addition, to ensure equitable geographic distribution of play areas throughout Denver, several maps were used to determine under-and over-served neighborhoods. This section explains this mapping process and makes recommendations for locating new play areas.

V. Implementation Strategies
To implement the Denver Play Area System of Play requires a multi-level approach. The strategies involve the parks and recreation staff, the city officials, partner organizations and the citizens of Denver.

The strategies have been grouped into five general categories: leadership and management, public education and outreach, training and staff development, community partnership and funding opportunities.

- **City Leadership** Without leadership in the City very little can happen. Senior staff and elected officials must actively ad-
vocate for the vision of a diverse and dynamic system of play in Denver.

- **Public Education and Outreach** To support the development of new play areas citywide, the City must build partnerships with the public.

- **Training and Staff Development** The City should actively train and support designers, program managers, maintenance staff, recreation leaders, and neighborhood volunteers to design and maintain play areas and play programs effectively.

- **Community Partnerships** The City should partner with community organizations to leverage resources, publicity and community involvement.

- **Funding Opportunities:** In order to ensure the long term viability of its play areas the City should explore opportunities for ongoing funding, including a variety of government tax related funding and the development of a parks trust.

**VI. Benefits of the Denver System of Play**

Denver’s System of Play, when realized, will provide the city of Denver with the following benefits:

- A high quality of life and a very livable community that supports human development.
- A connected system of play areas that promotes health, access, and a walkable community.
- Significant economic generators that attract and maintain residents, businesses and tourists.
- A reduction in police and justice costs.
- A reduction in social service and healthcare costs.
- Diverse, naturalized play spaces throughout the city that increase the amount of urban green spaces.
WHAT IS PLAY?

Play is child’s work. Through play, children learn to interpret and interact with the world around them. Play frequently involves exploration of the natural environment. It can be solitary or cooperative, active or contemplative. It is flexible and changeable according to one’s mood, the time of day or the season of the year.
Play is fun and joyful, it refreshes and energizes us and it makes our burdens feel lighter. But play is much more than amusement—for centuries, thoughtful observers have recognized play as integral to both childhood and adult life. Play shapes our brains, opening us to new possibilities and making us more adaptable to new situations. Like nutrition and sleep, play is a central element in determining our health, well-being, creativity and intelligence. Our success as an innovative culture rests on our recognizing the importance of play and allowing play into our daily living.

1.2 The Purpose of this Master Plan
The Denver Play Area Master Plan establishes a citywide system of settings that provide a range of play possibilities for all children and their families. Rather than limiting play to traditional playgrounds that focus on manufactured play equipment, this system recommends “play areas” that feature a variety of play opportunities that may or may not include manufactured equipment. The Plan identifies opportunities and the basic requirements for each type of play area. The document is designed as a tool to help design, create and manage a diverse system of play for the City of Denver.

This Master Plan works in concert with Denver’s Park and Recreation Game Plan, the strategic plan for the City’s parks, recreation facilities and natural open spaces. The findings and recommendations included in this Play Area Master Plan conform to the overarching mission and direction established in Game Plan.

1.3 The Planning Process
The Master Plan was developed with the participation of: 

- Evaluates existing play spaces for child safety and accessibility for people of all ages and abilities.
- Sets a community vision of play spaces for Denver.
- Explains the need for these places from a human development and quality of life perspective.
- Identifies the components of a healthy play space.
- Describes a typology of play spaces for the different community facilities.
- Proposes a policy framework to support the development and maintenance of each setting.
- Suggests strategies for implementation.
The Child’s Right to Play

In 1989, the United Nations ratified the Convention on the Rights of the Child, a groundbreaking document that recognizes the needs of children and defines play as a child’s right, rather than just a need. The International Play Association, dedicated to protecting this right, describes the principles of The Child’s Right to Play as follows:

- **Children** are the foundation of the world’s future.
- **Children** have played at all times throughout history and in all cultures.
- **Play**, along with the basic needs of nutrition, health, shelter and education, is vital to develop the potential of all children.
- **Play** is communication and expression, combining thought and action; it gives satisfaction and a feeling of achievement.
- **Play** is instinctive, voluntary and spontaneous.
- **Play** helps children develop physically, mentally, emotionally and socially.
- **Play** is a means of learning to live, not a mere passing of time.

The strategy for the Denver Play Area Master Plan supports a child’s right to play and incorporates the above principles throughout this plan.

of an Advisory Council whose members represent nineteen community, health and child related organizations. The project team also met with Parks staff (Maintenance, Planning & Design, Finance and Safety), the Commission for People with Disabilities, and the Department of Cultural Affairs to provide project recommendations.

The broader community participated in the development of the plan through surveys and focus groups to describe how their children use existing play areas, what barriers they encounter and what kind of improvements parents and caregivers would like to see. A community workshop, Play Fair, was held at the Children’s Museum of Denver to review the work of the advisory committee. This workshop also provided an opportunity for children to be included in the planning process.

1.4 The Importance of Play Spaces

While most forms of play are essential for healthy development, spontaneous free play—the kind that occurs on Play Areas—is the most beneficial type. Play scholars define free play as an activity that contains six key dispositional factors. Free play is:

- Voluntary, allowing players to enter or leave play at will.
- Spontaneous in that the play can be changed by the players.
- Different from everyday experience because it involves a pretend element.
- Engaging, as players are involved in the activity.
- Separated from all surrounding activities.
- Fun, pleasurable and enjoyed by the players.

Outdoor free play allows children to do what their bodies need to do: move. Development depends upon move-
ment; in fact, movement is one of the best indicators of overall wellbeing in the first year of a child’s life. A well-designed, well managed play environment should provide children with the following developmental opportunities.

Opportunities for Motor Skill Development
The physical aspects of play enhance development of motor skills and motor control. Effective environments encourage children to use their bodies and build strength, agility and confidence.

- Play environments should support large and fine muscle development, eye-hand-foot coordination, and balancing and locomotion skills.
- Environments must provide a range of opportunities to practice and test limits of abilities—there should always be something further to reach.
- Children should have opportunities to practice and extend their skills regardless of their abilities.

Opportunities for Decision Making
Any environment in which children live should allow them to make decisions about their own activities.

- The child must be in control of some or all the environment.
- The experiences provided by the environment must not be “dead-ends.” They must have decision points that allow the child options for continuing a current activity, terminating it or initiating a new one.
- Decision points must be appropriate to different age and skill levels and present a sufficient range of choices so that forced repetition is avoided.

Opportunities for Learning
Children need opportunities to manipulate their environment in order to learn about the nature of the world.
The environment must allow the child to explore properties and relationships among physical objects, space and self.

Play settings must offer a range of perspectives and vantage points—high and low, stationary and kinetic, etc.

Programs should help children appreciate ecological relationships, the natural order of things, and the need for peaceful coexistence with each other, their surroundings and ultimately, the planet.

An environment that is too literal will limit imagination; one that is too abstract will not stimulate dramatic play.

**Opportunities for Social Development**

Children need opportunities for role-playing, development of self-esteem, emotional growth and social skills development.

- Settings must support positive interpersonal interaction and socialization among people of all ages, ethnic backgrounds and physical abilities.
- Protected spaces must be available where small groups can withdraw from highly active equipment areas for quiet social play.

**Opportunities for Fun**

Above all, playing should be fun—smiling faces and laughter are the clearest indicators of a successful play setting.

- Environments must find a balance between the literal and the abstract.
1.5 Current Trends in Play Area Settings

Ecological Perspective
Children suffer from a lack of access to the natural world. In response, ecological considerations have become important factors in the design, construction and maintenance for play areas. “Play area Naturalization” advocates multifaceted play areas planted with trees and vegetation. In addition, designers can improve ecological sustainability by locating play areas within walking distance of residences, schools and commercial areas as well as using renewable products and incorporating natural features in ways that enhance green infrastructure.

Context-Driven Approach
Innovative play areas provide opportunities to incorporate art and custom features that reflect local history, culture and the natural environment. Art in this context is not limited to freestanding sculpture; just about any element in a play area can and should be designed in an artful way. Play areas can benefit adults as well as children by becoming social spaces where families and neighbors connect and build community in a beautiful and visually pleasing setting.

Health Considerations
Different play opportunities provide dynamic settings to improve children’s health. Young asthma sufferers benefit from the lung muscle strengthening that physical exercise on play areas can provide. Play areas and regular exercise are also an important part of the fight against obesity, currently the greatest health risk to America’s children. Since one of the root causes of obesity is low levels of physical activity, play areas are an essential part of the solution to this growing epidemic. Play areas offer a safe, community setting for enjoyable physical activity.
City staff inventoried the entire play area system to determine the age of play equipment and whether it meets current safety and accessibility guidelines. Staff also solicited feedback from the public to identify how citizens of Denver currently use play areas and the recreational opportunities they would like to see provided for their children. Summary results of each of these surveys are included in this document’s Appendix.
2.1 Playground Longevity Survey

The City of Denver has 139 existing play areas with additional play areas in development. Denver’s play areas range in age from several months to 24 years old, and while some are brand new, many are obsolete. Fifty-three of Denver's play areas are older than 15 years, the oldest being Green Valley East Ranch Park constructed in 1983. The majority of Denver's play areas were built in the last ten to fifteen years.

2.2 Playground Safety Survey

Safety is a crucial aspect of play area usability. As part of the overall assessment of Denver’s play facilities, each play area was evaluated for safety using a comprehensive list of criteria. The criteria used to determine play area safety were:

- Proximity to busy roadway
- Proximity to parking lots
- Surfacing conditions
- Equipment age (relative to play area safety milestone dates)
- Equipment condition
- Presence of age-separated equipment (for preschool and school-age children)
- Site maintenance
- Site cleanliness
- Presence of graffiti
- Spatial layout and separation between play features
- Ability of a caregiver to monitor children from
seating area
- Visibility into the site

In each safety category play areas received 0 to 5 points, with a score of 5 indicating the safest condition. The play areas were then numerically ranked based on the total number of points they received, with a maximum high score of 60 points. While no play area received a perfect score, several were close:

- Downtown Children’s play area (2007), 56 points
- Kittredge Park play area (2007), 56 points
- Village West Park play area (2004), 56 points
- Sanderson Gulch play area (1995), 56 points

Most play areas fell into the 35 to 40 point range. All areas receiving fewer than 30 points (<50% of the total possible) were built in the early 1990s, with the exception of the play area in Sanchez Park, built in 1997. The lowest ranking play areas are listed below. All three are currently in the design phase of new construction.

- City of Axum Park play area (1990), 27 points
- Bear Creek Park play area (1989), 24 points
- Atzlan Park play area (1991), 20 points—ranked least safe

The survey determined that older play equipment (installed more than 15 to 20 years ago) has the greatest potential to cause safety problems.
2.3 Playground Accessibility Survey

Providing universal access benefits everyone. As part of an ongoing effort to improve access, play areas in Denver were also evaluated for their level of accessibility. Currently only 40 of Denver’s play areas meet the existing codes for accessibility and all of them were built after 2000. As in the safety survey, each play area was assessed using a set of specific criteria. Play areas were ranked based on the presence of the following characteristics:

- Accessible route to play area
- Accessible entry into play pit
- Accessible play surface
- Elevated play component accessibility
- ADA ground level elements relative to elevated components
- Accessible swing
- Equipment age relative to milestone ADA years

Each element received one point, with a maximum total of 7 points. No play area received the full 7 points. With 6 points each, the play areas below ranked as the most accessible:

- Central Park play area (2007)
- Greenway Park play area (2003)
- Pasquinels Park play area (2002)
The survey’s most frequently cited barrier to accessibility was lack of accessible routes in the park and/or neighborhood.

Nineteen parks include play areas that fall into the least accessible category. All received no points and have play areas that were built between 1988 and 1992. Included in this list were the play areas located in the following parks:

- Argo Park (1991)
- Asbury & Tejon (1991)
- Aspgren Clifford Park (1991)
- City of Axum Park (1990)
- City of Nairobi Park (1988)
- Congress Park (1991)
- DeBoer Park (1992)
- Eisenhower Park (1992)
- Fred M Thomas Memorial Park (1988)
- Garland Park (1992)
- Knox Court Park (1988)
- McNichols Park (1992)
- Montclair Park (1991)
- Pferdsteller Park (1988)
- Pulaski Park (1990)
- Silverman Park (1988)
- Weir Gulch (1993)

2.4 Citywide Play Needs Survey

To determine the community’s needs for play areas, the City of Denver organized a series of public meetings and internet-based surveys to ask residents about their children’s recreation activities. The City also conducted two focus groups in Spanish in West Denver locations. Out of 640 responses, five percent were completed in Spanish.
Six percent of respondents indicated that their household includes a child with disabilities. Respondents answered questions about the play needs for three age groups of children: under 5 (infants to preschool), 5 to 12 (school-age) and 13 to 18 (teenagers). All responses were compiled and activities were ranked by popularity within each age group.

A. Activities
The results of the assessment demonstrate that:

- Visiting play areas is the most popular outdoor activity for children up to age 12. Children in this age group also regularly take walks, picnic, bike and fly kites.
- Soccer, baseball and basketball are the most frequently played sports in all age groups.
- Bicycling and running are significant outdoor recreation activities for children over 12.
- Nature walks are the most popular nature activities for all age groups; hiking and backpacking are the next most popular.
- Children under five enjoy bird feeding, children over five prefer gardening.
- All age groups listed pool swimming as their favorite water activity. River swimming, canoeing and rafting are other popular water-related activities for Denver children of all ages.
The results of the safety, accessibility and needs assessment surveys point to several key conclusions:

• Park play areas continue to be significant recreation spaces for children.

• Providing safe pedestrian and bicycle access to these play areas is essential. This point in particular dovetails with the goals set for the City of Denver in Game Plan and should be emphasized when planning and designing parks and play areas.

• Updating and replacing older and deteriorating play area structures will significantly improve the safety and accessibility of play areas as well as improving parents’ perceptions regarding overall park maintenance.

• Incorporating water features and water play zones into play areas is a high priority for Denver’s residents.

• Sledding was ranked as the top winter activity, followed by downhill skiing and snowboarding. All age groups also enjoy ice skating, snowshoeing and cross-country skiing.

• Arts and crafts activities are most popular with children under 12.

• All age groups attend sports events, but they are most popular with youth ages 13 to 18.

• Other important cultural activities for Denver children include attending fairs and festivals, painting, drawing and photography.

• Denver residents cited water play, especially indoor and outdoor pools, as the type of activity they would most like to add to a play area.

B. Amount of Structured vs. Unstructured Play
Children need both structured and unstructured play. Structured play is usually organized by an adult within the context of a programmed format. Unstructured play is usually child directed.

• During the week, Denver children under five spend 25 hours in unstructured play, while children ages 5 to 12 spend 17 hours and 13 to 18 year-olds spend 15 hours.

• On weekends or during school breaks children under five participate in 12 hours of unstructured play, 5 to 12 year-olds have 17 hours and children over 12 have 11 hours.

C. Where Children Currently Play
Denver residents identified neighborhood parks (both in and out of their neighborhoods) as significant and well-used play spaces for their children.

• Play areas in local neighborhood parks are the most important play spaces for children under five, and the second most important play spaces for school chil-
dren and teenagers.
- A child’s own yard is the most significant place of play for school age children and teenagers and the second most important play space for children under five.
- School play areas are the third most frequently used play area for children under five and school children. These play areas ranked fifth for teenagers.
- Friends’ yards, neighbor-
two: the current state of denver’s play areas

hood parks with sports fields, and community and regional parks are also popular among all age groups.

- Outside their own neighborhoods, the place that children of all ages visit most frequently is a park in another neighborhood.
- Less than 40 percent of children under 5 visit their local play area daily. Twenty-four percent of school-age children use a play area daily while fewer numbers of teenagers, 27 percent, use a play area daily.
- Fifty percent of children under 5 visits play areas weekly. Fifty-one percent play of school-age children visit at least once a week and 42 percent of teenagers visits a play area once a week.

D. Proximity to Play Area, Supervision and Barriers to Outdoor Play
The majority of Denver children do not play in public parks daily. The survey looked at several factors that may affect park usage: distance from a child’s home; parental comfort level with their child’s unsupervised use of a park; and the availability of a safe route between their home and a park.

- 75% of children live within six blocks of a play area.
- More than half of all children (65% of children under five, 56% of school-age children and 55% of teenagers) walk to a local play area.
• One-third to one-half of all age groups (35% of children under five, 45% of school-age children and 44% of teenagers) ride a bike to get to play areas.

• Almost all children under five (97%) and the majority of school-age children (81%) are supervised by an adult or older child on their way to a play area.

• Most teenage children (72%) go to play areas on their own.

• The most significant factor preventing children under five from going to a play area is their parents’ perceptions that a park is poorly maintained.

• For school-age children and teens, the major obstacle to play is a lack of safe pedestrian or bicycle routes leading to play opportunities. The next most significant obstacle is the perception of poor park maintenance.
3.1 A VISION FOR DENVER

The City of Denver will design a system of play areas that provide unique play experiences distributed equitably throughout the City. These new and renovated play areas will meet the play and learning needs of Denver children as well as the needs of their caregivers.
The Master Plan will:

- Create a citywide system of play rather than focusing on individual play areas or parks. As identified by the project’s Advisory Council, Denver will be known as the city of the “Free Range Kid.”

- Provide age-appropriate opportunities for the physical development of a wide range of age groups, from infants and toddlers to adolescents and seniors.

- Establish a standard of universal accessibility for people of all ages and abilities beyond the minimum standards for play equipment.

- Provide ample opportunities for children to interact with the natural environment and deemphasize the sole reliance on manufactured play equipment for play in play areas.

- Take advantage of the special features associated with each park’s location—the changes in elevation in hillside and mountain parks, the length and proximity to water in gulch parks and the connection to nature provided by the City’s growing system of Natural Areas into the play area design.

- Make each play area unique by varying its size, location and elements as well as by incorporating features that interpret the cultural and natural history of the neighborhoods that surround them.

- Recommend developing a system of paths and trails that will eventually connect parks and play spaces to recreation centers, schools and mountain parks.

- Respond to Denver’s changing demographics by designing a flexible system that allows for change over time.

- Involve kids in the design and construction of their
A System of Play, the strategy for achieving Denver’s vision for play areas, is an overlapping, multifaceted approach that links human development, policy frameworks, site design and implementation strategies. This strategy:

• Promotes human development by incorporating the needs of park users, from infants to park staff.
• Establishes fundamental principles and city-level development standards that provide the basis for play area policy development.
• Uses a setting-based approach to site design which advocates creating play areas designed for the physical, social and intellectual development of children based on activities.
• Presents implementation strategies for realizing Denver’s play area vision.

play spaces. Each play area should have an element designed and built by local children and adolescents that allows them to take ownership of the space.

• Provide opportunities to incorporate curriculum into play areas by designing interpretive elements that vary according to the needs of local schools.
• Designate Denver as the regional leader in providing distinctive play spaces that foster the healthy development of children and their families.

3.2 The Play Area, User Groups and Their Needs
Children of all ages, their family members and their caregivers use play areas—alone or in groups. Each type of user has different needs and expectations of how a play area must function. Residents of Denver also have specific needs based on the highly variable climate in which they live. Dry with low humidity throughout the year, Denver receives abundant sunshine accompanied by strong radiation from the city’s mile-high altitude. This climate makes abundant shade and access to drinking water in play areas essential. Denver’s hot summers with frequent thunder storms and dry autumns necessitate play areas that feature trees, vegetation, and shade structures that cool ground surfaces and play elements. It also suggests a need for water play areas. Lasting from October through April, Denver’s snow season is characterized by heavy spring snowfall combined with periods of intense sun. This combination is ideal for winter sports but can
be challenging for the users of play areas. Covered areas, semi-enclosed spaces, play elements designed to incorporate ice, snow and snowmelt can promote use of play areas throughout the year.

While all play area users need protection from the elements and access to drinking water, different users have different needs that must be met in play areas. Infants learn by exploring the world around them and require play environments that stimulate all their senses. Toddlers and preschoolers need creative play spaces that further develop and challenge their newly mastered physical, social and intellectual abilities. School-aged children are physically adept and require play areas that allow them to take risks and test their skills as well as develop socially and emotionally through group and solo play. Play areas should also serve adolescents as a safe place to socialize and pass time in inclement weather. Play areas must also meet the needs of parents, caregivers and play leaders by providing comfortable attractive settings where they can socialize, observe, teach and play with children during every season. (For detailed information of the functional and developmental requirements for play spaces for each user group, see the Appendix.)
3.3 Citywide Play Area Policies

These citywide play area policies provide a framework for the creation of new Denver play areas and the renovation of existing play areas. By adopting these policies, the City can ensure a wide variety of play area types, sizes, geographic locations, activity settings and facilities that reflect the vision and values of Denver. Specifically, these policies build on the four values put forth in Game Plan as most important for the City’s parks and recreation system.

1. The Right to Play

A primary child’s right is the right to play, which includes the right to a stimulating, developmentally appropriate environment. Denver supports the rights of young people in the design of its educational and cultural institutions.

- In supporting the Right to Play, the City can ensure equity in facilities and services and a better quality of life for all.
- The Right to Play entails the right to thrive and be healthy—play areas should stimulate the mind and body.
- Children need to see themselves as part of the broader community. By locating and designing parks and play areas to accommodate the needs of all age groups, including adults, both
three: a system of play for denver

children and adults would have more opportunities to learn how to accommodate each others’ needs more skillfully.

- Play areas must facilitate children’s need to physically manipulate their environment. Children should have places where the stuff of their surroundings can be picked up, thrown about, gathered, jumped on, eaten, kicked, rolled on, climbed into, broken down, dug up or burnt and taken away, without causing offense.

2. Accessibility and Walkability

Play areas and play opportunities should be designed to be accessible and walkable for all ages and abilities.

- Locate designated developed play areas no more than 1/2 mile apart and play opportunities no greater than 1/8 mile from each residence.
• Limit the size of residential blocks (300 ft. is ideal) and create a network of multiuse non-vehicular pathways.

• Address play area accessibility issues in partnership with the City’s community planning and development agencies.

3. Connected Parks and Open Space

Every park and play area should be connected to every other park by a “green” circulation system of pocket parks, greenways, play streets, bike-ways, trails and natural areas to encourage walking and biking. Providing a high-quality system of connected play places establishes a positive identity for the community.

• Gulch parks can serve as green connectors that support play as well as ecological or utility functions.

• Safe pedestrian connections and protected sidewalks enhance connectivity.

• Coordinate with the Department of Public Works’ Safe Routes to Schools Program, as well as with the Department of Planning & Community Development and the Office of Economic Development.
3. A system of play for Denver

4. Variety of Compelling Destinations
No two play areas should be the same. Each provides a different experience, so when the system is viewed as a whole it provides an exciting and diverse set of activities for all age groups and at all challenge levels.

5. Access to Nature and Urban Wildlife
Although children express a keen interest in urban wildlife, there often is a lack of appropriate, accessible habitats. It is essential for healthy human development to interact authentically with nature. Proper shelter and adequate food sources for wildlife are not provided by the monoculture of mown lawn.

- Increase the diversity of urban ecosystems through native landscaping.
• Recognize small-scale wildlife as an important play and learning resource.

• Protect natural and wild areas while welcoming public access.

• Implement education programs for play areas within or adjacent to these spaces to stimulate interest and educate the public about environmental stewardship.

6. Sustainability and Ecological Appropriateness
Good design maintains and respects all natural features of the site when feasible, including natural drainage patterns, topography, plant and wildlife species and pre-existing preservation zones.

• Build on existing environmental conditions or re-create past environmental features whenever possible to define and enhance play areas.

• Design play areas that can function as a tool for learning about the local or regional environment.
three: a system of play for denver

7. Base Designs on Activities

Play areas should be designed around activities that are needed or wanted in the play area. All too often the only activity setting that a play area provides is manufactured equipment. That is only one type of activity setting. The number and type of settings should be determined by the
play area’s location, size, function, adjacencies and community need. (Refer to Play Area Settings Guidelines for specific recommendations.)

8. Site-specific and Context-Sensitive Design

Play areas should be designed to fit the character of each specific site. While each may have the same play setting relationships, every setting will be distinct with features that make it a destination. No two play areas will look the same. A complete master plan is require for each project even if the entire project cannot be built at once.

- Design play areas with place-making features that reflect the culture, values, history and social needs of the local community.
- Layer elements such as landmarks, water features, art, special facilities and layout throughout the design to create meaning and community connection.
- Design play areas with great aesthetic quality.
- Use high quality, diverse and long-lasting building materials, and have a variety of well thought-out landscape details.
- Integrate art into each play area as part of its functional features—benches, bridges, lights, signs, water features, walls, planters, and shade structures can and should be artful and provide opportunities for incorporating art.
9. Community Involvement

Play area design should include meaningful community involvement that includes adults, children and youth, maintenance staff and recreation leaders.

- Design new play areas in neighborhoods based on overall community need as determined by Game Plan.
- Include community participation in the development of play areas in currently occupied neighborhoods.
- Continue to involve the community after the park design.

10. Maintenance Standards

Each play area design must provide for on-going maintenance by incorporating materials and facility maintenance standards and requirements as part of the design process. At the end of the design process each play area will have a documented maintenance program.

- Incorporate integrated maintenance funding for all designs.
11. Adequate Funding and Resources

Play area design is complex, and to create a high quality system of play requires adequate funds for capital. Once built, each space must be properly programmed and maintained. These phases of the project must be adequately funded as well or the investment will be wasted. Each play area design must incorporate capital, operations and maintenance costs in the allocation of funds so there is a complete financial understanding of the play area.

- Utilize partnerships and collaboration opportunities for funding.
- Prepare cost estimates for each project that includes a full accounting of all costs at the schematic design stage.

12. Change Over Time

Neighborhoods change over time and play area design must take this into account.

The inclusion of flexible space allows for adaptation as a community grows and changes. Full funding is also not always available, so incremental development allows the site to evolve over time.

- Consider and anticipate changing demographics and new trends when planning play areas.
- Take a phased approach to design in order to allow for significant changes in user types and patterns over time.
- Build for all ages whenever possible.
- Use high quality materials for long-term cost effectiveness.

3.4 Play Area Performance Requirements

The performance standards in this document guide the development of play areas in any public space including parks, greenways, play streets, trails and natural
The Three Needs: Behavioral, Ecological, Management

Master Plan standards described in this document are structured to provide a play system that fulfills behavioral, ecological and management requirements. Behavioral requirements address the needs of individual play space users. Ecological requirements address the human habitat and setting issues. Management requirements control the care and sustainability of the play area system.

A. Behavioral Needs
Behavioral requirements are based on human, cultural, social and biological needs such as:
- Physical comfort and safety
- Community, connections and identity
- Stimulation and discovery
- Fun and joy
- Beauty and spiritual restoration

These needs can only be satisfied in play settings specifically designed to support them. A good setting is based on the physical, social and cultural activities people engage in throughout the course of their lives. Therefore, the performance standards are based in part on the activities or behaviors that each type of setting is expected to support.

B. Ecological Principles
Many children currently suffer from a lack of access to the natural world. In response, ecological considerations have become important factors in the design, construction and maintenance of play areas. Ecological requirements are the basis for a second set of performance standards. They are habitat-related and based on a simple ecological principle: complete ecosystems must provide for a range of needs, offering habitat for plant and animal species, including human animals.
All habitats are designed or manipulated to support life by the species that inhabit them. There are six ecological requirements that determine the health of the ecosystem or settings in which we live:

1. **Diversity**: habitat or species variations to allow adaptive potential

2. **Complexity**: richness of stimulation to promote an organism’s development

3. **Connectivity**: safe pathways or corridors to allow mobility in finding life-sustaining resources

4. **Range**: ability to move through a habitat to acquire resources

5. **Adaptability**: ability of species to adapt to variations in environmental conditions

6. **Sustenance**: availability of resources

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**C. Management Criteria**

This document emphasizes five criteria for managing play settings. Each has a role to play in the success of the system.

**Play Value** Play value is a measure of the developmental significance of a play setting, object or material as well as the degree to which it stimulates children’s play.
Each play setting should promote learning simply by using and interacting with it. No element should be added to a play area unless its play value is understood.

Programming Potential

Programming potential evaluates the degree to which a given play setting, object or material can be used as a resource for creative program development. While all play areas will not have permanent staffing, they should be designed to support both formal and informal recreation programs. For example, shaded gathering areas with seating or picnic tables could accommodate family picnicking, a summer camp program or provide opportunities for additional events permitted by parks.

Play Leadership

Play and recreation leaders are essential components of successful play programs. As skilled professionals trained in the use of creative arts and physical settings, they devise stimulating and challenging play events for a wide variety of children. In addition to creating a context for fantasy and dramatic play, a good
play leader can be a positive role model, demonstrating autonomy, cooperation, flexibility, willingness to listen and desire to change and grow. Again, while all play areas will not have permanent play leaders, play settings must be designed to support facilitated play. For example, providing nearby storage opportunities for play props and equipment—in park restroom buildings or recreation centers—would sustain a facilitated play program.

**Safety** Safety is the concept of caring for the health and well-being of all children in all circumstances. Children are dependent on adults to provide safe, appropriate, high quality play settings designed for their healthy development. Play settings must eliminate exposure to hazardous situations and remove any known dangers from the environment. Everyone engaged in the design and management of play spaces must understand play behavior and all related safety requirements, as well as the differences between risks and hazards. Children’s environments need to include a graduated series of challenges and activities requiring children to evaluate their potential for risk. However, no children’s environment should have hazardous or unsafe conditions.

**Risk Management** Risk management refers to the management strategies and methods used in reducing the risk of accident, liability and lawsuit with respect to play settings. A comprehensive set of risk management strategies includes:

- **Shared Environmental Control** Control over the physical environment is essential to the safety and security of children. Entrances to every play space should be able to be monitored. Where the space is
used by several organized groups, staff should be acquainted with each other and the children so monitoring responsibilities can be shared.

- **Defensible Settings**
  Large programmed activities can be broken into small group activity centers throughout the site. This decentralization of activity increases the possibility of informal surveillance of the whole site.

- **Shared Site Maintenance**
  Effective site maintenance is essential to the health and safety of children. For most sites, this can be achieved most effectively when program staff, the parks and recreation department or the school district share maintenance responsibilities.

- **Staffing and Supervision**
  The greater the ratio of trained staff to children, the lower the chances of children getting into situations that could result in injury.

- **Staff Training**
  Professional training is necessary to prevent staff from inadvertently blocking children from essential, nonhazardous risk-taking activities.

- **Built-in Risks**
  Building risk into programs is an excellent strategy for providing safe yet challenging experiences for children that reduces the likelihood that children will seek challenges in dangerous situations elsewhere.

- **Allowances for Spontaneous Play**
  To ensure play opportunities that span the full range of developmental needs, spontaneous play that may use settings in unexpected ways must be allowed. Staff must take care that hazardous situations are avoided.

- **Community Involvement**
  By encouraging their participation in play pro-
grams, children’s families and neighborhood residents become more knowledgeable of and positive toward the settings’ goals and objectives. The chance of a negative or litigious reaction to mishap is thereby reduced. Community-based management means parents and local residents must take leading roles.

- **Documentation, Record Keeping and Reporting** As part of staff training, it is essential that everyone involved in a given play program follows standard record keeping procedures and uses predetermined documentation and reporting procedures in the event of an accident.

- **Accessibility** Accessibility is a measure of the degree to which users can experience all parts of an environment, recognizing that each will be more or less difficult for each individual.

- **Integration** Integration assesses the extent to which children of different ages, sexes, ethnic and social groups, as well as different ability and disability levels, interact and play together.

- **Management** Management refers to the systematic and rational processes, procedures and strategies used to allocate environmental resources to meet social goals. Included are
policy, planning, participation, physical design, maintenance and budgetary activities.

D. Summary
By basing the performance standards for play settings on these three sets of requirements—behavioral, ecological and management needs—the City can establish a clear set of design guidelines for planners, designers, developers and managers in order to meet the goals of a connected and integrated system of play areas, parks and open spaces. Because the system is based on the local ecology, it will provide the community with a unique sense of place that will positively influence the image of Denver as a city that supports human development.

3.5 Play Area Settings Guidelines
The concept of the play setting is a means of integrating behavioral needs and physical requirements into the design process. Play settings are defined by the grouping of activities and the physical environment that support them. Play settings are very flexible—their type and number vary depending on the type of park play area in which they are located. A pocket park play area might have 5 settings
while a regional park play area would have many more. While in ideal circumstances most play areas could incorporate all play settings, not every play setting is appropriate for every site. A setting’s form also varies to reflect the site context and the project budget. An elaborate water spray area would be an appropriate water setting for a regional park while a spigot draining into sand would be effective for a modest neighborhood park.

The requirements for each basic play setting are discussed in the following section. Each of these play area settings, which range from entrances to storage, can be expanded and/or renamed depending on the purpose of the play setting.
play area settings

Entrances
Entrances welcome visitors to the setting and provide critical transition zones from transportation and arrival to the space. Clearly defined entrances orient users and introduce them to the site. An entrance is a reference point—it can reflect the seasons and provide a place for people to meet, talk and display community information.

Purpose
Orientation, Meeting, Waiting, Notice posting, Sitting/resting

Components
- **Gateway element:** Entrances can be marked with overhead gateway structures, which function to clearly indicate an entrance as well as add an attractive sculptural element that sets the tone for a play area.
- **Bollards:** Bollards allow pedestrian traffic while halting vehicular access. They can also be designed as seating. Bollards should be highly visible, at night as well as during the day.
- **Bike racks:** Bike racks promote the use of bicycles and other alternative forms of transportation. They are also a signal to teens and adults that their presence in play areas is welcomed.
- **Litter receptacles:** Litter receptacles serve the practical purpose of collecting trash. By doing so, they encourage pride of place that helps develop a neighborhood sense of responsibility.
- **Signs:** Signage provides details about the site and gives directions about its usage and care.
- **Seating:** Seating provides a place for children and their caregivers to meet, chat and rest.
- **Drinking fountains:** Having drinking water
available is important for both children and adults.

Requirements
It is essential that principle entrances be fully accessible. A play area can have more than one entrance and/or entryway within the play area to define other settings. Some play areas require a single secure point of entry and exit. Play areas should provide a clear path of travel from parking/sidewalk/transit to the entrance.

Adjacencies
Entrances must be linked by accessible walkways to public transportation, passenger loading zones, accessible parking spaces, and public streets and sidewalks.

Operations and Maintenance
Adequate maintenance, including regular trash collection, must be provided so that entrances attract visitors into the play area and leave a positive impression when they depart.
Pathways and Circulation

Pathways provide access to and separate functions within a play area. They orient users and enable them to move between and through play elements; pathways should support the ebb and flow of play from one zone to another. Depending on their design, different types of paths can support different activities—from circulation to wheeled-toy play, chase games and exploration.

Play areas should contain a variety of path types and provide a choice of routes. Connected, curvilinear paths support prolonged uninterrupted play. The pathway system is the setting in a play area with the highest level of movement and activity.

Purpose
Walking, Running, Games, Wheeled toy play, Tracking, Coloring with chalk.

Components
• **Surfaces:** The surface of a path is one of the primary determinants of its accessibility. In order of decreasing accessibility, possible surfacing choices are: concrete, asphalt, pavers on concrete, crushed stone/decomposed granite, decking, pavers on sand, turf or soil. Pathways can be textured, colored or imprinted to support play.

• **Seating:** Benches should be provided at regular intervals along principle paths. Benches should not be located in a way that restricts movement.

Requirements
Pathways are a play element in themselves and should be treated as a play experience. Most of the exercise that takes place in play areas happens on the circulation system. Main pathways should be a minimum of 72 inches wide. No path should be less than 36 inches wide.
Adjacencies
Pathways connect the play area to the site and to each activity setting or support facility within the play area. Play areas must be linked to the surrounding neighborhoods by accessible routes. Paths leading to and from play areas must also be accessible. Access for fire and emergency vehicles up to or within the play area is also required.

Operations and Maintenance
Paths should be designed to allow multimodal uses (pedestrians, wheelchairs, tricycles, bicycles, skateboards and other wheeled toys) as well as maintenance and security functions.
play area settings

Manufactured Play Equipment Settings

Manufactured play equipment can be a single element or a composite structure designed to facilitate a wide variety of play activities. Play equipment should stimulate large muscle activity and encourage a variety of movement opportunities. Some elements should be interactive and respond to children’s input. Children can also learn spatial complexity and directionality from structures that utilize three-dimensional, connected paths of movement, such as up-down, over-under, in-out, and right-left.

Play equipment should provide a wide range of options to maintain the interest of children with varying abilities. In addition, play structures can incorporate a full range of tactile, auditory and visual stimulation.

Purpose

Climbing, Jumping, Swinging, Sliding, Crawling, Rolling, Twirling, Balancing, Falling, Hiding, Seeking, Pushing, Pulling

Components

- **Play events:** Play events, such as swings and climbers, continue to be popular and change often, reflecting innovations in play equipment design. Using tall features adds an element of height into the design and can function as a landmark.

- **Nooks and semi-enclosed spaces:** Small spaces support dramatic play, hiding and chasing games as well as social exchanges and other less physical aspects of children’s development.

- **Sand and water features:** Often incorporated into play structures, sand and water play encourage creativity and cooperation.

- **Themed elements:** Thematic equipment closely matches developmental stages (for example, rocket ship slides may be especially attractive to preschoolers). However, over time,
children can tire of these play settings. For most ages, the more abstract the theme representation, the more imagination that comes into play activities.

- **Seating:** Benches, seat walls and other seating opportunities aid social interaction for children, parents and caretakers.

- **Resilient surfacing:** Play surfaces that are designed to protect children from severe injury from falls should also be slip-resistant and durable.

**Requirements**

Play equipment must be designed to challenge children physically and mentally while maximizing safety. Providing play equipment tailored specifically to the developing physical abilities of different age groups is essential. Play areas for different age groups should be separated to prevent toddlers from playing on equipment meant for older children and vice versa. The equipment itself should be built to match the physical size and abilities of children within a given age range. Signs notifying parents and caregivers of the intended age of the users should be located in each play equipment area.

Appropriate safety surfacing is another critical factor in making constructed play equipment accessible to all children. Play surfaces should be well drained to prevent flooding and erosion. Materials with a unitary surface, such as poured-in-place rubber or rubberized tiles, provide the highest level of accessibility for children with and without disabilities. When using loose fill materials, such as wood chips or shredded rubber, the difference in height between the path and the play surface can be a barrier to access for a child with mobility disabilities. These play pits must have short ramps into the surfacing to ensure their usability by all children. When a water source is located within a sand play pit, however, it is important to provide transfer steps so that children using wheelchairs can leave them and engage in play alongside other children.

**Adjacencies**

Constructed play equipment in a play pit does not provide a sufficiently stimulating or developmentally appropriate experience on its own and must be considered as one part of a multipurpose play environment. Other play settings, connecting pathways and support facilities such as litter receptacles, toilets and drinking fountains should be located close by. If sand is provided in a play setting a dedicated water source for sand play should also be provided and drinking fountains located further away to protect them from becoming clogged with sand.

**Operations and Maintenance**

Strict policies and standards are needed to ensure the safety and usefulness of play equipment. Regular safety inspections are mandatory, especially given the tendency for safety surfaces to freeze in the winter. Play equipment settings should be periodically re-evaluated and renovated, about every five years.
Water Play

Water features and aquatic environments are highly valued by children. Water is a powerful play area attractor as children, who value its multi-sensory character, seldom miss a chance to play with and in water. Water settings support a variety of wildlife and add greatly to the aesthetics of any play setting.

Components

- **Natural water features:** streams, ponds or marshes.
- **Artificial water features:** wading pools, spray pools and surfaces, bubblers and sprinklers, fountains, water tables or a hose bib in a sand box.

Requirements

Ensuring safety is an important part of design; the depth, access and form of water features must be carefully evaluated. Water for play areas must be drinking quality and not share its source with irrigation water. Water play areas must have slip-resistant and well drained surfaces and be located in sunny areas, protected from the wind.

Adjacencies

Water play areas should be in close proximity to caregiver seating. If a sand area is located in a play area, a water source should be provided within it; otherwise children will bring sand to the water play area, creating a maintenance issue.
Children bring sand to water, not water to sand.

**Operations and Maintenance**

Plumbing and pump systems for water features must be simple, with few moving parts. Anti-vortex drains are appropriate in some water play settings. Some water play equipment manufacturers are now including the option of water treatment systems designed to recirculate water. However, many water play systems use domestic drinking water without recirculation. They have restricted or seasonal hours of use and are designed with user-activated, low-flow emitters to conserve water. A regular maintenance and cleaning regime should be established as well as a winterizing program.
Sand Play
Due to its softness and malleability, sand is one of the most popular and well-used play materials. When combined with water, sand has even more potential. The ultimate “loose part,” sand is an excellent medium for creative play and social interaction.

Purpose
Digging, Pouring, Sifting, Sculpting, Drawing, Filling, Emptying

Components
- **Sand pit:** The sand surface should be maintained less than four inches below adjacent paving. Raised curbs around the sand pit prevent easy maintenance and are not recommended. A transfer system in the sand is needed to accommodate the needs of children using wheelchairs.
- **Elevated play surfaces:** Sand tables, shelves or rocks provide a solid surface for toy play and make sand areas accessible to all children.
- **Water source:** Water is essential for sand play. Child-activated water sources and a trough or channel to carry a trickle of water into the sand work well.
- **Enclosure:** Preschool play areas are often separated by low fencing, which keeps small children from wandering. It also prevents older children from running through the relatively quiet play found in sand areas.
- **Storage:** A place for rakes, brooms and large toys is recommended. Some communities take responsibility for daily or regular maintenance activities such as sweeping.

Requirements
Sand play areas should be large enough to accommodate a large number of chil-
children but shaped to encourage small group play. Sand areas that are 3 to 4 feet deep encourage real digging. The mix of sand is critical; children must be able to mold the sand without it becoming as hard as concrete. Usually a variety of sieve sizes is best. Designs should also take into consideration the local microclimate, with special attention to sun exposure, wind protection, and site drainage. While sand is a good surface for protecting children from injury, it does not provide an accessible route to play equipment.

**Adjacencies**

Sand settings should include a water source but be located away from drinking fountains. Hardy vegetation in planting pockets adjacent to sand areas can enhance imaginative play by providing plant parts for building or water transport. Sand play areas must be separated from other active play zones. Even when sand is used in a play equipment setting, separate sand and water play areas should be provided and clearly designated.

**Operations and Maintenance**

Sand should be turned and raked on a regular basis. In areas with neighborhood groups, the City should consider supplying brooms and rakes and encouraging neighborhood/user clean-up. While a few hours of sun, preferably in the morning or late afternoon, helps to keep sand clean, sand areas should be shaded to protect from the intense heat of midday. The “Million Trees for Denver” program could provide an opportunity to plant deciduous trees that would offer appropriate shade. Many believe that the presence of cats causes unsanitary conditions in play areas. This “health” issue is a myth. Unless there are hundreds of them using the site, cats pose no risk to children playing with sand. Dog owners should be informed that dogs are not allowed in sand play areas. Doggie bags and trash receptacles should be provided at all parks and their use should be encouraged.
Multi-Purpose Game Areas

Multipurpose game areas are flat, open spaces with hard and/or soft-surfaced areas. Multipurpose game settings support recreation that promotes cooperation and team spirit such as team sports, large group games and informal ball play. These open spaces are also useful for community events and festivals.

Purpose

Running, Playing ball, Playing games, Gathering, Biking, Skateboarding, Rollerskating, Rollerblading, Scooter riding

Components

- **Places to run** These can be simple open areas or, for children with disabilities, more structured spaces with running lanes or rope guides.
- **Hard-surfaced play areas** Formalized zones with hard ground surfaces are best for court games such as basketball; less less-structured spaces with a hard ground plane are needed for bike riding, skateboarding, roller skating and other informal play.
- **Ball play areas** Ball play areas can overlap and one zone can contain fields for several different sports.
- **Ball walls** Ball walls can be as simple as the outside wall of a building, or as complex as stand-alone walls with curved surfaces for added interest.
- **Storage** Play equipment for multipurpose game areas should be stored nearby. Storage units should be accessible to children but in areas with adult supervision.
- **Seating** Seating promotes patience and socialization as children “wait their turn.”
- **Planting** Trees provide
shade while shrubs and other plantings give interest to what could otherwise be a visually uninteresting place.

**Requirements**

Multipurpose game areas do not need to be rectangular. An irregular boundary adds visual interest. Site grading is essential to prevent water from unintentionally accumulating on the play area.

**Adjacencies**

In order to be multifunctional, these open spaces should be sited near shade, toilets, drinking fountains, litter receptacles, seating and parking.

**Operations and Maintenance**

Ball game areas are often underused compared to other play areas. Efforts should be made to design and program for a variety of potential uses throughout the day, week and year. For example, water spray heads located in a slip-resistant paved area could also have basketball hoops and contrasting paving colors to delineate ball play zones. On hot summer days, ball play could be suspended from time-to-time to allow a cooling respite of water spray play.
Gathering Meeting/Working/ Picnicking Places

In order to develop social skills and cooperative relationships, children need both large and small gathering spaces. These spaces must be designed to accommodate many types of activity and “non-activity” at different times by different people. Small intimate spaces provide places for children to be alone or spend time with a friend or two.

Gathering spaces can also function as places for caregivers to sit together and observe children. Larger spaces facilitate group activities (15 or more participants). Areas that are easily identifiable become good rendezvous points.

Purpose
Eating, Socializing, Working, Reading, Observing, Participating in arts and crafts, playing games

Components
• **Work tables**: Tables with seating to accommodate eating, games and crafts. Work tables should be wider than picnic tables and have smooth surfaces with rounded corners.

Smaller child-sized tables should be provided. Work tables should be accessible to children and adults with disabilities. They should be located on firm, stable and slip-resistant surfaces with sufficient circulation spaces around them and an accessible pathway leading to them. Work tables should have places for a person using a wheelchair to sit; some manufacturers offer tables with these wheelchair spaces located in different positions to accommodate a variety of user preferences.

• **Seating**: A variety of movable furniture options are optimal.

• **Grills and barbeque pits**: Children should have
opportunities to learn to handle fire in a controlled and safe group setting. Any recreational activities that involve fire require constant adult supervision.

- **Water source:** Outdoor sinks and spigots must be designed to be used by small children and people of all ages with disabilities.

- **Drinking fountains:** Drinking fountains must be fully accessible for small children and people of all ages with disabilities.

- **Toilets:** Bathroom facilities expand the possible activities of meeting spaces. They should be clearly visible and directly accessible from the main areas of the play environment.

- **Litter receptacles:** Trash and recycling bins must be located adjacent to meeting and working areas.

- **Shade structure:** Covered areas provide the potential for all weather use.

**Requirements**

Meeting spaces should be protected from the elements and may be covered and/or enclosed. A variety of seating options and a varied sense of enclosure, from private to open, should be provided.

**Adjacencies**

Spaces for large groups should be situated at main path crossings and at entrances. Small group spaces should be located away from these zones. A prime location for meeting and working is at the transition point from inside to outside. For programming convenience, work places should be next to storage areas.

**Operations and Maintenance**

In order to maintain their appeal, social spaces require daily maintenance, especially trash/recycling collection and graffiti removal. Good maintenance makes these attractive spaces for birthday parties and other social events.
Garden Settings

Gardens are one of the best ways of enabling children to interact with nature, learn about ecology and cooperate with peers. They also support fine motor skill development and sensory stimulation and are an excellent opportunity for social interaction between children with and without disabilities. Special events and fundraisers throughout the year can be built around seasonal activities in the garden.

Purpose

Planting, Digging, Harvesting, Eating, Cooking, Watering, Collecting, Composting

Components

• Elevated planting beds:
  Raised beds create order and a practical working arrangement within the garden. They also facilitate gardening for children using wheelchairs.

• Compost boxes:
  Tri-compartment compost boxes provide a practical explanation of ecological systems and the food cycle.

• Accessible work tables:
  Work tables that accommodate wheelchairs are essential for working and social interaction among children of all ability levels.

• Storage:
  Lockable storage provides a place to store tools and program materials.

• Enclosure:
  Fencing around gardens focuses gardening activities, maintains supplies and prevents plantings from being disturbed.

Requirements

Gardens need some supervision. They should only be located in play areas that have programs with staff to support them or as part of a community garden with an organized structure. Many garden paths can use turf or decomposed granite, but some must have an accessible surface material to maximize access.
Adjacencies
Gardens should be located in level areas with good drainage and near a water source, sinks and toilets, storage and gathering spaces.

Operations and Maintenance
In order for garden programs to be successful, an agency-wide policy of support for the importance of gardening is essential. This includes specialized training for program and maintenance staff. If there is not a person responsible for the garden, it will not be successful. Gardens should not be placed in a public play area without a plan for its maintenance.
Trees and Plants

Trees and plants in play areas provide shade, sensory variety, softly edged spaces, seasonal change, and a welcoming and attractive environment. It is imperative that children have daily experiences with trees and plants so they grow up with an intuitive appreciation of the natural world. Plants and trees stimulate exploration and discovery, improving play areas by providing a wide variety of play props and open-ended play opportunities. Tree climbing and hide-and-seek are age-old games that continue to be popular, while harvestable plant parts supply crafts and culinary activities.

Components

- **Plants for play:** There is no set list of plants that are best for play areas; individual species and plant groupings will vary depending on the site and program requirements. Plants with toxic parts, thorns or sharp leaves and should not be used in children’s play areas. Plants with small berries or seeds should not be used in areas intended for use by infants and the use of plants that are allergy-inducing or especially attractive to bees or wasps should be carefully considered. In general, hardy, low water use, non-invasive plants adapted to the local climate should provide
the framework for all planting schemes, although the limited use of more exotic species can provide visually-striking results.

- **Seating:** Seating near planting areas gives children and adults a location to pause and enjoy nature.

- **Shade/Sun:** Species that provide shade in the hottest months and allow filtered sunlight in the coldest, such as deciduous trees, are best.

- **Water:** Plantings in play areas generally need irrigation during establishment and some may require supplemental irrigation throughout the year.

### Requirements

Plantings should be used to physically define a play area and should be integrated into play settings rather than segregated “nature areas” elsewhere in the park. Trees, shrubs, flowers and ornamental grasses that stimulate all the senses with their color, fragrance, texture, and sounds should be the foundation of play area plantings. Plants for play should provide seasonal interest, shade and wind protection and supply a variety of play props. Within the play area to define other settings. Some play areas require a single secure point of entry and exit. Play areas should provide a clear path of travel from parking/sidewalk/transit to the entrance.

### Adjacencies

Play area plantings should feature native plant habitats or plants adapted to the local climate.

### Operations and Maintenance

Plantings in play areas may require more intensive and regular maintenance than other types of park plantings. Play areas are high-activity zones and special care is needed to keep them attractive and functional. Regular inspections to determine vegetation health and the efficient operation of the irrigation system are required. During establishment, trees should be secured without using long guy wires that might trip running or playing children. Plants that are appropriately sized and do not require pruning should be given preference. However, trees along pathways and play areas should be pruned to remove branches that intrude into active play or circulation zones. Plantings must be maintained so as to ensure public safety—they must not obstruct or hinder supervision, nor provide unsafe hiding places.
Play Props and Manipulative Settings
Manipulating and interchanging parts in the environment is a fundamental aspect of normal child development. Props are essential tools for this type of play. Manipulative settings range from sand and water play areas where children dig and transport sand or water with toys, plastic tubing or leaves and sticks to elaborate and supervised adventure play areas where children continually construct and alter their environment using building supplies and tools.

Play props and manipulative settings both provide critical support for social, imaginative and dramatic play. They promote fine motor skill development, intimate and group interaction, problem solving skills, independence and self-management and expansion of verbal expression.

Purpose
Constructing, Role playing, Problem solving, Communicating, Cooperating

Components
Play settings should contain a range of fixed and moveable parts including:

- “Found objects”: Children invent countless uses for small manufactured or natural objects such as sticks, stones, bottle caps, popsicle sticks, logs, rocks, plant parts, insects, small mammals, sand and dirt.

- **Large manufactured items**: Children transform building materials such as blocks, boards and modular systems into imaginary landscape. Wheeled toys provide any form of transportation imaginable and dress-up clothes complete the fantasy.

- **Fixed features**: Site furnishings, structures and ground surfaces become the backdrops for prop play.

- **Signage**: Clear directions and rules aid safe play with props.
• **Storage**: A secure place to collect and store props and building materials is essential.

**Requirements**
Areas where play props are used must be carefully designed to screen “unsightly” views into the site for the passersby; however, clear lines of visibility must be maintained. These areas need storage that can easily be used by children. Many manipulative settings and most large props require adult supervision and play leadership.

**Adjacencies**
Play areas utilizing props must have nearby storage. If these play areas are located near a stage, the opportunities for dramatic play are greatly enhanced. Recreation centers are a good place for storing and distributing play equipment.

**Operations and Maintenance**
Policies that recognize the significance of play props should be developed. Staffing to assist children in checking out items or using tools is often required. A low-cost, local source for simple props and building materials should be identified. Parks with neighborhood organizations could have a storage box for parts that could be distributed by neighborhood volunteers.
Special Features/Non-Manufactured Equipment

Special features include any element that is unique to the site. This could be special art or sculptural elements, landmarks, interpretive elements or natural features such as rocks and boulders, waterways, vegetation and trees or landforms. These elements are essential for creating play areas that reflect the local culture and natural history.

Purpose
The activities associated with a particular feature will vary according to the feature itself. For example, climbing is an activity associated with many special features including landforms, rocks and sculptural elements.

Components
The list of components is limited only by a feature’s ability to stand up to active use by children.

Requirements
Each element of a constructed feature must conform to the current child safety and access requirements.

Adjacencies
Appropriate adjacencies would be determined by nature of the special feature.

Operations and Maintenance
If the feature is fabricated or built on site, a maintenance manual should be required from the contractor. Hazardous behaviors at special or natural features should not be accommodated. For example, when developing play opportunities at gulch parks, pathways leading to culverts should be avoided and all openings should be grated.
Landforms and Topography
Topography describes the high and low points of land while the term landform describes how topography manifests itself on a particular site. Landforms are important play opportunities and should be retained when they exist on site. If not present, they should be created wherever possible.

Components
- When a pathway winds up a hill, easy connections to the upper levels of play equipment can be accomplished in a more natural and flexible manner.
- Landforms can also be sculpted to dramatically enhance the site and its play opportunities.

Requirements
The drainage system for a play area must be considered in relation to the overall site drainage. Topographic features can be used to direct stormwater to systems in surrounding areas or can provide a structure for retaining and treating water on the site. In general, play areas require good drainage—water should not flow into use zones.

Operations and Maintenance
To avoid erosion of earth forms, the height, slope, groundcover and protective barriers need to be carefully evaluated. In general, a rise of a foot for every four feet of slope will be stable and mowable (exceptions can be made based on unique play opportunities).

Landforms and topography promote the development of large muscle groups through movement games. A mixture of landforms and vertical elements encourages play in three-dimensional space and provides spatial orientation. Topography can also provide opportunities to connect and integrate manufactured play equipment, pathways and other play settings as well as ensure universal access without the use of special ramps or transfer systems.

Purpose
Sitting, Rolling, Sliding, Sledding, Running, Crawling, Hiding, Seeking, Constructing

play area settings

mounds at stapleton
ask laurel
Stage Settings
For group productions and performances children and adults need a well-defined, slightly elevated, accessible stage space and adjacent audience space. A stage supports dramatic play and performances, individual presentations, group presentations and community gatherings. A stage can be very small or very large as well as informal or more structured.

Purpose
Performing, Role playing, Observing, Listening, Gathering

Components
- **Indoor/Outdoor structures:** Verandas, gazebos, terraces and decks serve an important social purpose and should be at least partially enclosed.
- **Campfire circles:** Concentric circles of logs, tree stumps, boulders or benches can accommodate large groups. A fireplace is not essential but should be considered.
- **Stages:** These spaces facilitate dramatic art, music activities and other large community gatherings.
- **Amphitheatres:** Often site topography can easily incorporate stage settings and provide a variety of seating possibilities
- **Shaded seating:** Trees and permanent or temporary structures can provide protection from the sun.

Requirements
Accessibility for people with disabilities to the performance area and to seating opportunities is required. Storage for props and other materials that support dramatic play is also necessary.

Adjacencies
Stage settings should be located away from traffic noise and visual distractions. Prox-
imity to toilets and drinking fountains is recommended. Stage settings should be present at all play areas located near Recreation Centers or sites for summer camps.

**Operations and Maintenance**

Large stage facilities offer community-wide participation in parks and play settings. Policies and schedules should be established to coordinate use. There is often no need for scheduling at smaller settings, which can host impromptu puppet theater or other informal child or community performance activity.
Ground Covers and Surfacing

Both hard and soft surfacing materials are necessary in a multipurpose play environment. Providing a diversity of surface materials ensures a wide variety of play opportunities for the largest number of users.

Components:

- **Hard Surfacing:** concrete, asphalt, artificial turf, decomposed granite and dirt. Appropriate for paths, multipurpose areas and some court surfaces.
- **Soft Surfacing:** turf, natural ground covers, and shock absorbing safety surfacing such as engineered wood fiber or synthetic safety surfacing. Turf is appropriate for sports fields, unstructured play areas and on mounds and slopes. Children can manipulate soft surfacing more easily, but it is also prone to wear. Natural ground covers provide contact with nature and create habitat for small animals. Flowering and scented species add sensory diversity.

Requirements

The surfacing in each part of a play environment must reflect the intended activities and needs of the users. Shock absorbing safety surfacing is mandatory throughout the fall zones of all manufactured play equipment. Pathways to play areas, play equipment and other site features must havesurfacing that is accessible to people with disabilities; it must be firm, stable and slip-resistant. Permeable paving and many soft surfaces contribute to good site drainage by allowing the infiltration and treatment of stormwater. Reflective surfaces and soft surface planting areas help reduce the heat island effect, which protects children from burn injuries as well as protecting the environment. All surfacing must be properly installed and maintained to guarantee good drainage and access.

Operations and Maintenance

All surfaces require frequent maintenance to provide for safety, accessibility and play value. Freezing temperatures and UV rays can damage many synthetic safety surfacing systems. The City should explore new products and/or treatments for existing products that are more durable. Maintenance staff must ensure adequate separation of sand from other loose fill safety surfacing.
Signage

Signs are graphic tools that supply information about a site and its programs, assure good orientation, direct traffic flow, and explain site risks and rules. Signage can be playful, colorful and artful. Effective signage communicates on many levels, using symbols, color cues or tactile features along with words.

Purpose
Games, Reading, Communicating

Components
- Upright informational structures
- Arrow-shaped directional indicators
- Word or graphics-based identification signs
- Interpretive pieces
- Regulatory notices.

Requirements
Signs must emphasize graphic communication since not all children (or adults) can read English or see clearly enough to distinguish words. Signs should focus on the positive—they should describe appropriate ways to have fun in the park, rather than a list of “don’ts.” Signs should emphasize respect for park resources, and should promote recycling where possible (in possible partnership with Greenprint Denver).

Operations and Maintenance
Signage must be legible, attractive and display up-to-date information. Signs should be included in the design concept and consistent with the aesthetics of the site. The site should not be overly signed.
play area settings

Animal and Wildlife Settings
Contact with animals fosters a caring and responsible attitude toward other living things. Animals have a therapeutic effect on children and offer opportunities to explore biology. Animal settings include house pets, farm animals and naturally occurring insects, birds and other urban wildlife. In addition to stimulating imaginative and dramatic play, animals also provide a link to children’s literature and to conservation education.

Animal and wildlife settings can appear in many different ways. Examples for urban environments include interpretive signage that points out squirrels and birds, small butterfly gardens, existing ponds with fish or turtles, formal zoos and mobile educational programs working in collaboration with the Denver Zoo or other wildlife educational program. Animal and wildlife settings are not appropriate for all parks.

Purpose
Observing, Studying, Feeding/caring, Handling

Components
• **Animals**: Appropriate animals for play areas include birds, small mammals, reptiles and amphibians, fish and pond creatures and farm animals.
• **Water source**: Aquatic habitats support many animals that fascinate children and can originate from other parts of a play area, such as a pond or an artificial stream.
• **Storage**: Storage for animal areas includes places for their cages, food and equipment used in their care. Depending on the animal, cages and food can incorporate plant material growing in the play area.
• **Signage**: Since there is some risk involved with the care of animals, rules and regulations should be clearly posted for both children and adults. Inter-
pretive information about the animals should also be included.

- **Wash-up:** Clean-up sinks, hand-washing stations and hand sanitizers are requirements in areas where children have direct contact with animals.

**Requirements**
To attract wildlife, food, water and shelter must be present. Play area plantings can easily fill these needs.

**Adjacencies**
Animal settings should be near vegetated areas, shade and water sources.

**Operations and Maintenance**
Animals need proper housing and care. Parents and children must be made aware of animal needs and informed of the risks of interaction. If there is an animal program, there must be a way for children to wash their hands after contact.
Storage

Storage facilities provide a place for play equipment and materials, loose parts, and maintenance materials and equipment.

**Purpose**

Orientation, Meeting, Waiting, Notice posting, Sitting/resting

**Components:**

- **Outdoor storage cupboard**: These may be incorporated into the design of play houses and climbing structures.
- **Storage box**: In addition to housing supplies, storage boxes make excellent play elements and seating. Play areas adjacent to recreation centers are a good location for storage play boxes.
- **Field house**: Storage buildings can be converted from or added to existing buildings or play structures. They can also exist as free-standing structures.
- **Storage compounds**: A chain link fence can enclose large items such as lumber or building materials at adventure play yards.
- **Restroom Addition**: Denver has a parks restroom master plan and standard restroom design. An additional space can be added to the standard design to accommodate play storage.

**Requirements**

Proper storage helps reduce clutter that can hamper activities. Good storage facilities in play areas are designed so that children can use them without adult assistance, which encourages children
to clean up after their own activities. Storage facilities must be designed with safety in mind. Hinges or other moving parts should not pinch fingers. Lids and doors should have mechanisms that prevent them from slamming shut or inadvertently locking a child inside.

**Adjacencies**
Storage facilities should be located near activities that use loose parts, play props or toys that remain on site.

**Operations and Maintenance**
Policies are needed that recognize the importance of secure storage facilities for program organizers. Storage sometimes needs management to determine who has access to the site, who is responsible for maintenance and how the storage is secured. Local residents should manage play storage in neighborhood play areas.
Fences and Enclosures

Fences are physical barriers used to define, create and separate activity settings. Fences differentiate the primary zones of a site and reflect its pattern of movement as well as delineate main pathways and planted areas. The correct use of fences gives a sense of security, enclosure and support for play activities; when used inappropriately, fences can appear too confining and even restrict play opportunities.

Components

- Play experiences should be incorporated into fencing where appropriate, with peek-a-boo holes, temporary writing surfaces and child-created mosaics and murals.
- Built-in seating, social nooks and hang-out spots can enliven and activate enclosures.
- Exclusion or barrier fencing and walls should be designed to be non-climbable.

Requirements

The height, expected longevity, relative transparency, and desired level of separation are important factors that must be considered when designing fencing and other enclosures for play areas. For example, temporary fencing can protect new plantings while more robust permanent fencing would be best to shield a principle planting zone. Enclosing areas for very young children provides a sense of security for caregivers, who wish to protect children and allow them to play freely. All play areas for 2-5 year olds should have low fencing. Perimeter fencing should complement the barriers used in surrounding areas.

Adjacencies

All play areas adjacent to hazards such as roads, parking or water should be fenced or separated by planted barriers.

Operations and Maintenance

Policies for the location and modification of fences with respect to vegetation management should be developed. Fences should be kept in good repair.
Support Settings
This setting includes a variety of elements such as restrooms, parking and concessions that are not play elements but that facilitate play. Restrooms and where necessary, sanolets, should always be located adjacent to play areas. Restroom facilities, parking and other support settings should be within easy walking distance from play spaces.

Components
• Restrooms
• Litter receptacles:
  Trash bins encourage children and adults to clean-up a play space and allow the same area to be used for other community events.
• Recycling bins
• Drinking fountains:
  Active sports need nearby drinking water, especially at high altitudes.

Operations and Maintenance
The City’s Restroom Master Plan provides storage for maintenance equipment in each restroom. That plan could be amended to include storage for program elements for play as well.
3.6 The Planning and Design Process for a Denver Play Area

To properly apply the policies, performance criteria and design guidelines to the design of a Denver Play Area the following process applies.

Selection of the Most Strategic Site

Once a neighborhood area is selected but before a particular site is chosen, the neighborhood should be analyzed to determine the types of play experiences that are available throughout the area. This analysis could include visiting each local facility to assess opportunities, meeting with community groups to discuss needs and talking to the children about what they want or think is missing. Then the location that can best accommodate the needs is selected.

Community Involvement in Design

After the design team and site is selected, it is the responsibility of the designer to find out what activities the community wants in their play area. Because of the complexity of play areas and the many creative ways in which each activity setting can be applied, it is essential that the community understand their options. Usually when someone says ‘playground,’ most people think swings, slides and monkey bars. Since each of Denver’s play spaces is to be unique to its setting, the public must be educated as to how different a play space can be.

- **Community Meeting/Workshop 1:** The City should provide the design team with a PowerPoint show to present at the first community meeting that illustrates creative and dynamic play spaces. The discussion that follows helps the design team understand the activities the community wants, a little about the community cul-
ture and some history or stories about the neighborhood. This first workshop should be fun and interactive with people sharing great play experiences and how they would like this new or redesigned space to serve the entire community.

- **Concept Master Plan:** The design team takes the information from the first workshop and turns it into a concept master plan for the site that captures all the ideas and activities that the community desires. This master plan may include more settings and features than can be constructed with existing budget.

- **Community Meeting/Workshop 2:** The concept master plan is the topic of the second community workshop discussion. Once the community talks about the plan and there is a general consensus on the types of play settings they would like to have, the community should then prioritize them. These settings priorities, along with the logic of the most efficient construction process, will help the city and design team develop a phasing plan based on available funds.

- **Phasing Plan:** The design team develops the first phase of design and presents it back to the community showing how it fits into a phasing plan. This is
the time when community members may step up to raise outside funds for elements that are outside the budget. The City should be ready to help support a community fundraising effort.

Involving Maintenance and Recreation Staff
As the design begins to take shape, the design team must also work closely with both the maintenance staff and the recreation staff to ensure that the space can be well maintained and the new play setting can accommodate play programming. At the design development stage and through construction drawings of the design process, two tasks are required that are not a usual part of the process:

- Working with the maintenance staff, a set of maintenance standards for the specific design is created and priced. This becomes part of the final deliverables to the city.
- Working with the recreation staff, a structured play program is outlined. The play program describes activities with program descriptions, hours of operation, storage needs, staffing requirements, operational costs and possible revenue generation through fees for service. This program may be run by the city or a partner organization.
3.7 Criteria for Locating Play Areas within Parks

While the location of a play area will be determined primarily by the specific site features, some general criteria are useful to ensure safety, connectivity and convenient use.

1. Play areas should be located to minimize potential contact between children and vehicular traffic.

   • Play areas should be buffered from parking and roadways using fences, berms or planting.
   • Parking area perimeters should be open and unobstructed to view.

2. Entrances to the play area should be clearly identified and visible from other areas of the surrounding park.

   • When the play area is located along the outer edge of a park, the entrance to the play area should be visible from the street, adjacent residential areas and other adjacent uses.
   • Play area entrances should direct young pedestrians to a safe route to the play area.

3. Play areas should be linked via accessible pathways to other use areas within the park such as ballfields and picnic facilities.
The distance and type of barrier is determined by the type of sport.

6. Play areas should be sited near areas of natural vegetation or other natural features so that they may be incorporated as play elements.

7. Play areas should not be separated and isolated from the main area of the park by bodies of water, steep slopes, or roadways.

8. Play areas should be located where they will receive some sun exposure, shade and protection from the elements. For example, siting a play area in the perpetual shadow of a tall building should be avoided.

3.8 Play Area Requirements by Park Type

The Denver Park and Recreation system features seven types of parks: Pocket Parks, Neighborhood Parks, Joint-Use School Parks, Commu-
nity Parks, Regional Parks, Mountain Parks and Gulch Parks. Pocket Parks are parks smaller than one acre. Neighborhood parks are smaller than 10 acres. Joint-Use School Parks are play facilities used exclusively by children attending school during school hours but open to the community when school is not in session. Denver’s Community Parks range in size from 5 to 80 acres and serve two or more adjacent neighborhoods. Regional Parks, all parks greater than 80 acres, serve the entire community of Denver and the metropolitan area. Mountain Parks are parks of varying size on land owned by the City of Denver in the hills and mountains above Denver. Gulch Parks are linear parks of varying length in or immediately adjacent to the stream gulches in Western and Southern Denver. While the character of play areas depends primarily on their site context, the urban parks of Denver-Pocket, Neighborhood, Community and Regional—should feature formal play spaces with multiple play settings. Because of their linear nature, Gulch Parks lend themselves to a series of play nodes with one or two play settings. Mountain Parks should emphasize free unstructured play and contain no formal play spaces. Two other play area typologies include Play Streets and Natural Areas. These have not traditionally been part of the park system.
Pocket Park Play Area

Pocket parks are intimate neighborhood-scale parks, under one acre in size that serve primarily as social spaces that help foster community life. Denver has a number of pocket parks with play areas, including Highland Gateway Park and Flores Park. Bounded by public and private built spaces, streets and usable circulation spaces, these small-scale parks provide a place of respite in dense urban settings. The play area can fill the entire pocket park or occupy just a portion of it. Pocket park play areas should have a minimum of three to five play settings.

LOCATION
A pocket park can be located in a residential, commercial or civic area and play within this space should be appropriate to the local context. Play settings within the park should be near comfortable seating and have sun exposure for part of the day. Access to the play area should be adjacent to the park’s main entrance so that visitors enter the play space after passing through the park entrance.

SIZE
A play area in a pocket park should accommodate 20 children with a minimum size of 3000 square feet.

AGE SEPARATION
Since pocket park play areas are so small, they can usually accommodate only one age group range. Because these parks are often located near busy streets, the play area should use fencing to prevent children from leaving the area.

SETTINGS
Ideally there should be five settings in a pocket park, including:

- One prominent feature
- Places to sit
- Places to eat, work, or play table games
- Relaxing elements such as trees, plants or water features

Play spaces should be simple. Using special features and non-manufactured play equipment may be more inviting to a range of users.

The diagrams on the opposite page describe the relationship among each of the play settings and its components for a pocket park play area.
OPERATIONS AND MAINTENANCE
Because of their small size, pocket parks can be very difficult for the park department to maintain. Since pocket parks support the local neighborhood, a management and maintenance system should be developed with the local neighborhood or commercial district to monitor and contribute financially to the maintenance of the park.

COSTS
The costs for a pocket park are dependent on how developed it is. A cost of $25 to $35 per square foot is reasonable for a simple pocket park. Pocket parks can cost $100 per square foot in downtown or high end commercial areas.
Neighborhood Park Play Area

A neighborhood park is an important community-gathering place, and the play area within it is the basic unit of Denver’s system of play. It is the focal point of a neighborhood and must serve a wide variety of children and their families. The play area creates a sense of place within the neighborhood park by utilizing art and special features that respond to the site and to the overall neighborhood context. McNichols Park is a typical Denver neighborhood park that features playing fields and play areas.

LOCATION
As Denver’s Game Plan notes (chap. 3, p.32), residents consider access to neighborhood parks more important than the size of the parks themselves. To that end, each neighborhood park play area should be:

- Located within 1/8 mile walking distance of other play opportunities, 1 mile from other neighborhood parks.
- Centrally located within the park itself
- Visible from street or parking area
- Accessible throughout its service area
- Designed with ease and safety of walking as the primary determinants

SIZE
A neighborhood park play area must be sized to fit the park in which it is located. The Department of Parks and Recreation defines a neighborhood park as smaller than ten acres. This Master Plan defines the size of play areas relative to park acreage:

- 7–10 acre park: Play area should be 20,000 square feet minimum (enough space to serve approximately 133 children at any one time).
- <7 acre park: Play area should be 15,000 square feet minimum (enough space to serve 100 children at any one time).

AGE SEPARATION
Each neighborhood park must have separate toddler/preschool (2-5 yrs.) and school age (5-12 yrs.) play areas. Some activity settings, such as water spray play areas, covered gathering spaces or natural areas, can be used by both age groups. Separation does not necessarily require fencing, although clear signage should indicate the intended age of users. The younger children’s area may need low fencing depending on adjacent conditions.

PLAY SETTINGS
Each site is unique, with different behavioral, environmental, and ecological needs. Factors such as the overall size of the play area, the proximity and nature of surrounding play areas, and community expectations should
determine the number and type of components in each setting. The diagram describes the relationships among each of the play settings and outlines possible components for a typical neighborhood park play area.

Although their particular style and format may vary, neighborhood park play areas should feature elements from most of the play area settings. In addition, play settings can provide the components that the public considers most important, as identified in Game Plan (chapter 3, p.32). These elements include garden settings, special features, multipurpose game areas, wildlife settings, and pathways.

**OPERATIONS AND MAINTENANCE**

Each neighborhood park play area should have a neighborhood committee associated with the Parks and People Partnership, a registered neighborhood organization or a park use group to advise the City on an ongoing basis.

**COSTS**

The cost of a developed neighborhood park play area ranges from $20 to $35 per square foot.
Joint-Use School Park Play Area

Schools are often the heart of neighborhood life for children and their parents, and their play areas should be flexible and well-used. While a joint-use school park play area is used exclusively by children attending the school during school hours, it is open for community use when school is not in session. By combining school and park play areas, resources can be maximized and formal educational goals can enhance the non-formal play and learning that happens on the play area. This type of play area is best supported by naturalistic design with ample space provided for both unstructured play and organized sports. Joint-use school park play areas can also be considered either neighborhood or community park play areas depending on their size, location or adjacent land uses.

Denver’s Learning Landscape projects provide increased opportunities for joint-use play areas throughout the City.

LOCATION
Location is determined by the school location. Location on the site should be easily accessible by the surrounding neighborhood and directly accessible from the school building.

SIZE
The size of the play area is determined by the number of children in the school. The minimum size should accommodate 1/4 to 1/2 of the student body of the school with at least 150 square feet of play space provided for each child.

AGE SEPARATION
Because this is primarily an outdoor play and learning environment, the area is divided not only by age group but also by curriculum potential. Preschool and kindergarten programs each have their own separate play areas, which are often fenced. The school age area is divided by subject areas that relate to curriculum.

CURRICULUM SETTINGS
While the settings in joint-use school park play areas are similar to the basic neighborhood park play area settings, adding topic- or curriculum-related settings helps extend formal educational opportunities to the outdoor learning environment. A full list of settings includes: science, natural resources or garden settings;
social studies or cultural arts; geology, archeology or history; a sand and water area; multipurpose outdoor classrooms; gathering and meeting areas; stage or performance settings; games, manufactured play equipment, and manipulative/building and construction settings.

Play settings should be flexible enough so that they can be transformed to support specific curriculum topics. For example, some setting components can be painted, decorated or provided with temporary backdrops to evoke a specific Native American village (or any other place in the world) as part of a social studies or history lesson. Sand and water play areas can become archeological digs or outdoor science laboratories.

The above diagram describes the relationships among each of the play settings and its components for a joint-use school park play area.

**OPERATIONS AND MAINTENANCE**
Joint-use parks may require complicated agreements to define the operational and maintenance responsibilities of park and school district partners.

**COST**
The cost of joint-use school park play areas ranges from $20 to $35 per square foot.
Community Parks and Recreation Center Play Areas

Play areas for community parks are designed to accommodate a wider variety and higher intensity of uses than neighborhood parks. Community parks such as Garfield Lake Park and Fred Thomas Park may also have amenities such as special use facilities (pools, water spray play areas) or publicly accessible natural preserves with unique natural features. Denver’s community park play areas are intended to serve several neighborhoods within an approximately one-mile radius. The play area associated with a community park should be considered a destination play area, offering at least one unique feature not typically found in a neighborhood park play area.

LOCATION
The play area needs to be easily accessible from the recreation center in order to support facilitated program use. Ideally, a natural flow from the inside to the outside is best, with transitional spaces (for example, shaded patios) at the building edge. A community park may have more than one play area depending on the park’s overall size and the other types of activity settings in the park.

SIZE
The play area in a community park should be large enough to accommodate a minimum of five hundred (500) children with their caregivers. This requires a minimum of one acre but two acres is ideal.

AGE SEPARATION
The community park play area, like the neighborhood park play area, needs to have separate play equipment settings for younger children (ages 2 to 5) and school-aged children (ages 5 to 12). Some non-manufactured play equipment settings can be shared.

SETTINGS
Because these play areas have a good potential for facilitated programming due to their proximity to recreation centers, community park play area settings need to include places for large group gatherings as well as facilities for art and outdoor building projects including sinks, storage and perhaps display opportunities. These play areas could also accommodate summer or after school camps or programs, so their settings should have the flexibility to
include activities that use loose parts for play.

The diagram below describes the relationships among each of the play settings and its components for a community park play area.

OPERATIONS AND MAINTENANCE
Since community park play areas serve a large number of children with both facilitated and unstructured play, recreation staff need comprehensive play leadership training to adequately manage the wide variety of possible play opportunities. This approach has the potential of providing an ongoing revenue source for the department if it were able to offer a consistent program of facilitated play opportunities that families could rely on for after school, weekend or summer childcare. (Programming for community parks currently includes outdoor summer camps in Bible, Congress, City, Rosamond and Sloan’s Lake parks. Indoor summer camps are located at a number of recreation centers throughout the city.) Maintenance oversight is a critical part of the responsibilities of play leaders, especially for maintaining program features such as a garden or construction zone where daily visual inspection by staff is required.

COST
The cost of the community park play area can be the same range as the neighborhood park, $20-$35 per square foot. Parks with more elaborate and artful features may have costs similar to those of regional park destination play areas.
Regional Park Play Areas

Regional parks offer large activity areas for every age group. Containing the Denver Zoo, the Colorado Museum of Natural History, Gates Planetarium and extensive recreational opportunities, City Park is an excellent example. Play areas for this type of park can be quite elaborate, with special features such as swimming pools or extensive water play areas. They can feature custom manufactured play equipment or they can appear to be completely natural spaces, depending on dominant and defining park features. Often the large extent and variety of play settings alone makes these destination play areas, drawing people who are willing travel a distance and stay for longer periods of time. Access to food services is often important at these park play areas.

**SIZE**
The regional park play area is a destination play space for the entire family.

- The size of this play area is a minimum of three acres with every setting designed to highlight and complement park features.
- This play area should be designed to support use by 1,000 children with caregivers at one time.

**LOCATION**
The play area in the regional park should be near parking and picnic facilities. It should be far enough away and buffered from vehicular circulation so the play area does not need to be fenced but can be enclosed or protected by natural features and vegetation.

**AGE SEPARATION**
Because the size of the regional park play area is so large, the separation by age of activity settings may take place within a setting depending on the size and type of activities offered. For example, a water play setting might have separate areas intended for use by preschool and school-age children. Co-locating facilities for children of different age groups meets a critical need of caregivers, who must be able to see and supervise from one vantage point every child in a family using a setting.
SETTINGS
Regional park play areas should be designed to tell a story that interprets the unique regional setting in which it is located. Every setting needs to be infused with elements of this story. A clear and extensive pathway system is needed to join together settings that may be spread throughout the park. Every setting should include generous places for caregiver seating, places for group picnicking and restroom facilities adjacent to the play areas. There should be rentable gathering spaces where parties can be held or local schools or daycare programs can be based for the day.

The above diagram describes the relationships among each of the play settings and its components for a regional park play area.

OPERATIONS AND MAINTENANCE
The operation of destination play areas can be very complex. They require a staff presence for both supervision and maintenance oversight. On busy days play areas will need to be maintained throughout the day, with trash pickup occurring two or three times per day. Play areas should be visually inspected daily and repaired or closed for repair as needed. These destination play spaces give the entire Denver play area system its special character. They are the jewel of the system and represent the public face of Denver parks to the entire region.

COST
The cost of these play areas range from $30 to $60 per square foot.
Gulch Park and Greenway Park Play Areas

Gulch parks, such as Harvard Gulch and Weir Gulch, are specialized linear parks that link Denver’s neighborhoods together through multiuse trails alongside the City’s stormwater management system. Greenways are linear connectors that accommodate pedestrian and bicycle movement alongside motorized vehicle routes. While their primary function is to link schools, recreation centers, parks and other community facilities, when designed properly greenways can function as recreation and play spaces.

Play areas should be placed throughout gulch parks and greenways, appearing at intervals along a central path with a clear and convenient connection to each neighborhood. Each discrete play area may be small, featuring only one or two play settings, but they should be designed to encourage movement from one play area to the next. Disc golf is a good example of an activity that can connect different settings along a linear park.

**SIZE**
The size of play setting nodes varies from 500 square feet to 5,000 square feet. If these nodes are considered part of a neighborhood park, they should be consistent with the neighborhood park play area guidelines. Major park pathways should be at least 10 feet wide and should provide links from the park into each adjacent neighborhood.

**LOCATION**
Gulch parks incorporate the natural features that make up part of the watershed along with structures intended to direct stormwater to the Platt River. The play area locations within a gulch park are adjacent to the main pathway or multiuse trail that meanders through the park. Play settings are located along this linear path in nodes at a maximum of 1/8 mile apart. These nodes should be visible from the surrounding neighborhood or street in order to increase connectivity and safety.

**AGE SEPARATION**
Each separate play area may be designed to meet the needs of a particular age group. However, play areas with more universal appeal may be more desirable.

**SETTINGS**
The settings for the gulch park play areas need to be appropriate to the surrounding environmental conditions and provide a connection to nature. Each park should have a string of settings along the main path that relate to each other so that when
they are viewed as a whole they tell the story of the particular gulch in which they are located.

Each activity node should also be capable of standing alone since not all park users are expected to visit the entire gulch park. The number of settings depends on the size of each activity node. At minimum, a node could accommodate two settings, one with a feature activity and one with a supporting activity. For example, a node that features a rock climbing setting might have a rock for informal seating and an interpretive sign that describes the geology of the gulch. Since water is such a central part of gulch parks, it would be important to ensure safe access to selected water areas.

Greenways provide opportunities for hiking/walking, biking and running. Interpretive signs and gateways can announce a location or provide interesting educational information about specific neighborhoods, parks or community facilities connected by this route. Play activity nodes along the greenway can be specially created to accommodate settings for each age group of children as well as for teens, adults and seniors. Gathering settings could be developed along with supporting amenities. When a greenway runs through natural areas or by a natural feature, the greenway can be a starting point for environmental exploration or a natural setting for play. Each condition along the greenway is an opportunity to program community play.

The above diagram describes the relationships among each of the play settings and its components for a gulch park play area.

**OPERATIONS AND MAINTENANCE**

One goal for gulch parks and greenways is increase positive activity in order to increase a sense of personal safety. As part of this goal, clear sight lines must be maintained, since visibility is a critical safety factor. A citywide interpretative program to tie together all the gulch parks may be a way to increase use and city-wide visibility. Wetland restoration may also be an interesting means of organizing community participation in the gulch parks. By having workdays to plant and revegetate areas, community members can become involved in the care and development of these parks.

**COST**
The cost of these parks range from $15 to $35 per square feet depending on features.
Mountain parks constitute a substantial natural resource area for the City of Denver, which owns approximately 14,000 acres of mountain and foothill land primarily to the west of city limits. Turkey Creek Park and other mountain parks are places to get away into wild nature and make a personal connection to wildlife and wilderness areas. The City has a goal of bringing its children, youth and families this resource, making it a more accessible part of the parks system. Play in this environment emphasize unstructured play in nature.

LOCATION
There should be no designated developed play spaces in the mountain parks but amenities to support play and exploration should be provided.

SIZE
Not applicable.

AGE SEPARATION
Complete integration.

SETTINGS
Play settings that support the exploration and discovery of nature, wildlife and the wilderness experience should be developed. Such settings may include wildlife viewing settings, trails for exploration, lookouts, interpretive information or guides, guided nature experiences, camping, quiet settings that take advantage of the natural features and appropriate group gathering settings.

The following diagram describes the relationships among each of the play settings and its components for a mountain park.

OPERATIONS AND MAINTENANCE
The mountain parks have their own master plan which covers the topic in great detail. Refer to the forthcoming Denver Mountain Parks Master Plan for details.
Play Streets

Play streets are multi-use spaces that periodically transform low-use public rights-of-way into play zones. These spaces must be designed to incorporate slow-moving vehicular traffic as well as play activities.

Successful play streets depend on extensive traffic calming measures or even the elimination of automobile traffic all together. Play streets help build community by creating a communal front porch and yard.

If play streets are to be part of a comprehensive play system for Denver, a detailed study to identify appropriate streets will be needed. Play streets are not just residential cul-de-sacs. They can also be part of commercial districts. The concept of play on the street throughout parts of Denver has the potential of creating a child-friendly city identity very quickly. It is also a way to reclaim open space in densely built out areas.

The implementation of a play street as a demonstration project will require the participation of the local residents, businesses, traffic engineers, planners and emergency personnel.
Natural areas differ from mountain parks in that they occur in many different urban locations within City limits. These natural areas are very important in establishing urban children’s connection with nature. Play in these spaces should emphasize unprogrammed, unstructured exploration opportunities.

Natural Areas should not have designated developed play spaces but should provide amenities to support play and exploration. While the City of Denver is developing a master plan that specifically addresses natural areas, this section suggests play opportunities within those spaces.

**SIZE**

Natural areas vary greatly in size, location and natural features. These factors will influence the type of play and play features within each natural area.

**AGE SEPARATION**

Complete integration.

**SETTINGS**

From a play perspective, Natural Areas are large manipulative settings with unlimited loose parts. The only settings not appropriate for Natural Areas are Manufactured Play Equipment settings and the Garden settings. All other settings could exist in a Natural Area, albeit naturalistic in form. For example, a network of exploration trails that are relatively short and level (Pathways and Circulation, Ground Covers and Surfacing) could connect unique natural features such as boulders, native vegetation or remarkable trees, wildlife viewing spots and scenic lookouts (Trees and Plants, Special Features, Stage, Landforms and Topography, Animal and Wildlife). Natural Areas could also provide safe access to local waterways by incorporating natural stepping stones and shallow pools (Water Play) and naturally occurring sand or mud (Sand Play). Fencing could separate ecologically sensitive areas or species from frequently used areas (Enclosures). Trailheads can function as flexible space (Entrance, Meeting and Multi-purpose Games). Interpretive signs throughout the Natural Area could direct users to child-friendly routes or special play opportunities, provide information about adjacent features, enforce safety standards (Signage) and indicate restrooms (Support and Storage).
Modifications to Natural Areas that increase usage for children should not compromise the appearance or ecological viability of the area. Very small areas can be altered to increase access to unique features without any part of the Natural Area taking on the look or role of a traditional play area.
While the City of Denver has over 130 parks, play areas and recreation facilities to serve city residents, many of these facilities are outdated and are not used to their fullest potential. Prioritizing improvements to existing play resources and deciding how new play areas get added is an essential component of the System of Play for Denver. This section explains the criteria used to evaluate each play area and suggests a criteria ranking by park for these improvements.
As one of the essential goals of System of Play is ensuring equitable geographic distribution of play areas throughout Denver, several maps were used to determine under- and over-served neighborhoods. This section explains this mapping process and makes recommendations for locating new play areas.

4.1 Improvement Criteria
Using the safety, accessibility, and age surveys detailed in Section II, each park in Denver with an existing play area was numerically ranked using a point system. (See the Appendix for a detailed explanation of each survey.) In the Safety category each play area was evaluated and given a score, with a maximum of 60 points. Zero points indicated the least safe and 60 points indicated the play areas that were the most safe. This was simplified to a single digit number, with 6 as the maximum score. In the Accessibility category, play areas were evaluated and given a score between 0 and 7, with 7 indicating the highest level of accessibility. For the Age category, the play areas were organized into five groups, with the oldest play areas receiving the fewest points and the newest receiving the most.

For simplicity these scores were then translated into “High”, “Medium” and “Low” in each category. If a play area received a “High” designation in one any of the categories, the play area becomes a priority in that category for improvements. If it received a “medium” designation, the play area still needs improvements but is a lower priority. If a play area received a “low” designation then the play area meets the standard requirements in the category.

The play areas were further organized by the type of park
Final Assessment Chart

NOTE: THIS SPREADSHEET IS NOT YET FINAL. Box is used as a placeholder.
Final Assessment Chart

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### Final Assessment Chart

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in which they are located (pocket, neighborhood, community, regional or gulch) and by neighborhood. Neighborhoods that are considered a priority for receiving improvements by the Denver Office of Economic Development (see Appendix) were indicated and given a high priority rank.

Denver Parks and Recreation staff and the project Advisory Committee reviewed the list of play areas to assess how to use these rankings. The chart at left includes all the criteria by park type. This chart illustrates the ranking information and can be used to assist the decision-making about phasing the improvements. What is not characterized in these rankings and which must be considered is the entire neighborhood context with its existing conditions as well as the equitable distribution of good play settings throughout the city.

4.2 New Play Areas

To determine where new play areas should be developed in Denver’s existing neighborhoods, a series of maps using GIS data was created. The first map located Denver’s existing play spaces (see p.XX). Next, a 1/8-mile (5-minute walking distance) service area for each play area was mapped to determine existing service and potential play area connectivity. The locations of Denver’s residential areas were added to establish land use.

Child population data was also mapped to determine neighborhoods with high numbers of children under 18. The play areas in these neighborhoods would be considered a higher priority for receiving improvements. When geographically correlated with the demographic information, overlapping service areas indicate areas that are overserved while distance between service areas
A small number of neighborhoods in Denver contain areas that are seemingly overserved.

- Baker
- Bear Valley
- Civic Center
- Clayton
- Cole
- Five Points
- Lincoln Park
- Marston
- Sunnyside
- Washington
- Virginia Vale
- Villa Park
- Virginia Village
- Whittier

Half of the neighborhoods in Denver have areas that were designated as underserved.

- Athmar Park
- Belcaro
- Barnum
- Barnum West
- Cherry Creek
- Congress Park
- Cory-Merrill
- Country Club
- East Colfax
- Fort Logan
- Hale
- Hampden
- Hampden South
- Harvey Park
- Harvey Park South
- Highland
- Hilltop
- Mar Lee
- Montclair
- North Park Hill
- Platt Park
- Regis
- Ruby Hill
- Skyland
- South Park Hill
- Speer
- Sunnyside
- University
- University Hills
- University Park
- Val Verde
- Villa Park
- Washington
- Washington Park West
- Washington Virginia Vale
- Wellshire
- West Highland
- Westwood
- Virginia Village

indicates areas where Denver is currently underserved for play space.

The terms “overserved” and “underserved” are geographical designations and refer exclusively to play opportunities. An overserved area indicates that there are overlapping service areas for all types of play spaces: parks, playgrounds, schools and recreation centers. It does not imply that it contains adequately designed play areas or that the area has an adequate amount of parkland. The term “underserved” indicates that there are service gaps between play opportunities greater than 1/8 mile. Areas were given a “HIGH” rank if they had service area gaps and had high populations of children, a “MEDIUM” rank if they had underserved areas but had a lower density of children and a “LOW” rank if they were overserved, regardless of the child population density.

These over and underserved areas were mapped across Denver to indicate zones where new play areas might be developed.

### 4.3 Summary

The play area improvement rankings and service gap analysis must be combined with a neighborhood-wide assessment of play opportunities. This combined information will provide the detailed view of play needs for Denver’s neighborhoods. The City can then make decisions about what types of play activities are required and where they need to be located.
A CITYWIDE SYSTEM OF PLAY

1. Existing play improvements and new play area development criteria.
four: existing play improvements and new play area development criteria
four: existing play improvements and new play area development criteria
Four: existing play improvements and new play area development criteria
Implementing the Denver Play Area System of Play requires a multi-level approach. The strategies involve the parks and recreation staff, city officials, partner organizations and the citizens of Denver.

The strategies have been grouped into five general categories: leadership and management, public education and outreach, training and staff development, community partnerships and funding opportunities.
5.1 Leadership and Management
City Leadership: The System of Play is a paradigm shift in the thinking about the design and programming of play areas. Without leadership in the City very little will happen. Leadership and management actions include:

- Adoption of the play area master plan by the City Council.
- Development of sustainable source of funding for play area development and maintenance.
- Understanding of the health, economic and overall quality of life benefits of improving play spaces in the city.
- Development of evaluation and accountability criteria for each new or renovated play area.
- Creating a play area implementation plan that sets achievable goals for the next fifteen years.

- Looking at play opportunities that could provide interim high quality play experiences in each neighborhood with existing play area conditions with the addition of community play leaders and adventure play events citywide.

5.2 Public Education and Outreach
To support the development
five: implementation strategies

of new play areas citywide, the public must become a partner and advocate. To build the partnership the city staff should:

- Develop pilot demonstration projects that illustrate the System of Play. Once built, share them with the entire city through information dissemination.
- Develop and deliver a citywide education program that teaches parents and caregivers the value of play and adequate play opportunities to the health and development of their children.
- Develop and deliver a program for the business community that shows the value of high quality play in Denver to attracting staff, new business, economic development and eventually a healthier workforce.
- Develop and deliver a program to Denver service groups that demonstrate the value of partnering on high quality play opportunities throughout Denver as a valuable contribution to the quality of life in Denver.
- As each play area is designed and constructed, a media campaign should be developed to show the public the design, the construction, the finished site and the play area in use with interviews from the
neighborhood users as to its value in their lives.

5.3 Training and Staff Development

• **Design and Planning** To design and later program the outdoor play areas, designers, project managers and recreation staff must understand the design guidelines, how to involve the public, how these spaces can accommodate exciting play programs and how to attract additional private community funding. This requires specific training in community involvement techniques that show people of all ages how they can become involved in the design, care and ongoing support of their play spaces.

• **Community Volunteers** Develop an ‘adopt a play area’ program and train citizens in the skills required to care for and maintain the play area. A citywide play area volunteer organization that is staffed can leverage many person hours of work to help the parks. The city would provide training in community organizing, hosting work parties, education on specific topics like maintaining a community garden or starting a neighborhood play group.

• **Play Leadership** City recreation staff members are not currently trained to use play areas for exciting play programs. A person who facilitates play in one of these settings is called a play leader. Play leaders are professional play workers who animate play spaces through the management of loose play props and by providing structure and supervision for spontaneous child directed adventure play without the parent or caregiver. Training for play leaders would include how to facilitate
child-directed play, how to run a play program, and how to gather and manage all types of play props. Play programs can also be revenue generators. If run successfully they can provide the funds for play leader salaries as well as the operational costs of the program and maintenance of the space.

5.3 Community Partnerships
Partnering with community organizations can leverage resources, publicity and community involvement. The Denver Playground Master Plan Advisory Council represented 19 different community groups. This advisory council should be expanded and tasked with helping the City implement Denver’s System of Play as a group and through their respective organizations.

5.4 Funding Opportunities
One-time grants and donations from foundations may be able to supplement a play area to fund a special feature or program but they cannot supply the capital required to build and maintain the entire play area system. A long term sustainable funding source is required. The City would need to complete a study to identify sustainable funding sources.
Government Funding
It is recommended if the City uses its taxing and bonding capabilities, all other services such as libraries, parks, play areas, etc. should be grouped together and packaged through one funding mechanism. Some possible options that are used in other municipalities may include:

- A 1/2 cent gas tax or other sales and use taxes
- Increase in property tax
- Park districts with assessment capabilities
- Developer fees required on new developments
- User fees

Parks Trust or “Denver Play Consortium”
A non-profit organization could be established to raise funds for the Denver Parks and play areas. Their mission would be to work with corporations, other foundations and enterprise opportunities to help fund parks and play areas.
The System of Play, when realized, will provide the city of Denver with many benefits.
Benefits include:

- **Quality of Life** A high quality of life and a very livable community that supports human development.

- **Healthy Community** A connected system of play areas that promotes health, access, and a walkable community.

- **Economic Health** Significant economic generators that attract and maintain residents, businesses and tourists.

- **Crime Reduction** A reduction in police and justice costs—when children and youth have activities and places to gather and are part of a connected community, crime rates go down.

- **Reduction in Social Service and Healthcare Costs** A reduction in social service and healthcare costs. When children, youth and families have a physically active lifestyle and play outdoors, they have lower rates of diabetes, heart disease, depression, anti-social behavior, smoking and substance abuse.

- **Sustainability and Preservation of Nature** Diverse, naturalized play spaces throughout the city increase the amount of urban green spaces. Their vegetation can improve air quality, protect watersheds and habitat and increase biodiversity. This increases the potential for environmental education, stewardship and the preservation of natural resources.