



MONTGOMERY COUNTY PLANNING BOARD

RECREATION GUIDELINES



FOR PRIVATE RESIDENTIAL DEVELOPMENT

FINAL DRAFT - MARCH 2017

MONTGOMERY COUNTY PLANNING BOARD

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Prepared by the Montgomery County Planning Department
www.MontgomeryPlanning.org

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Chapter 1:

Overview of the 2017 Recreation Guidelines



1.1 Introduction

This publication updates the 1992 Recreation Guidelines to introduce new recreation facility options with flexible parameters for contemporary private residential development. The revised guidelines include a web-based worksheet to enhance awareness of the quantitative measure of recreation requirements and facilitate application of the guidelines by developers and design professionals to specific residential development projects.

Data from United States Census Bureau's Public Use Microdata Set (PUMS) of the American Community Survey 2010-2014 was used to ensure that the guidelines address the recreation needs, desires and opportunities for different age groups in Montgomery County. A new menu of recreation facilities was developed based on county needs cited in the 2012 Park, Recreation and Open Space (PROS) Plan and the statistical study of recreation trends issued in 2016 by the Sports and Fitness Industry Association.

The focus of the Recreation Guidelines is the balancing of recreation supply and demand. The changes and additions incorporated into the 2017 Recreation Guidelines include the following components applied through:

- Application of the Recreation Guidelines as a graphical, web-based interactive tool.

Recreation Supply

- An expanded menu of recreation facilities suited to urban areas.
- An updated selection of general recreation facilities.
- A web-based worksheet for the Recreation Guidelines.
- A new process that allows an applicant to propose new, custom facility types, subject to Planning Board review.
- A new menu for allowing supply point incentives for providing master plan-recommended recreation facilities or meeting those recreational needs identified in master plans, sector plans or PROS Plan.
- Options for encouraging dual use of stormwater management facilities and active recreation facilities to achieve efficient, sustainable and high quality site design in changing suburbs.

Recreation Demand

- Integration of updated 2010-2014 U.S. Census data sorted by age groups and housing types.
- Expansion of the five targeted age groups to six groups to include a new category for young adults (ages 18-34).
- Simplification of single-unit detached housing categories.

1.2 Purpose of the Update

The 1992 Recreation Guidelines are being updated to reflect demographic shifts in the County, such as aging of the population, and to attract young professionals through urban development around transit centers. The update also meets the increasing need in the county for active and passive urban recreation spaces to serve higher-density, mixed-use and infill development.

This need is amplified by the complementary desire to provide accessible recreational opportunities for all ages in residential areas, particularly for teenagers residing in urban areas or residents with disabilities. The creation of effective recreation for transit-oriented areas requires specialized attention to building form and open space, and recognition of new trends in recreation. The aim is to create a vision that joins new and existing facilities within a composite recreation system that brings together private and public realms.

1.3 Overall Recreation Guidelines Goals

The revised guidelines seek to encourage wider access to recreation opportunities by relating individual developments to broader, connected pedestrian systems and bikeways. The guidelines can create opportunities for developers to fulfill recreation requirements under the regulatory review process by providing incentives for off-site, master plan-recommended amenities within the optional method zones. There is opportunity to use off-site public recreation facilities and provide new active pedestrian connections to those facilities.

The intent of the guidelines update is to provide a flexible, yet predictable methodology that encourages innovative ideas uniquely suited to each proposed private residential development. These ideas lead to new definitions of recreation supporting social interaction and passive enjoyment along with physical activity. Needs of young adults and future generations are considered across the spectrum of recreational options and trends.

The new Guidelines will help fulfill the vision of an integrated, complementary system of recreational opportunities within the county that utilizes public and private resources efficiently to serve high-density residential areas as well as those featuring mixed-use development.

1.4 Use of the Recreation Guidelines

The guidelines address recreation facilities required under subdivision and site plan applications for all types of residential development, 20 units and greater, including urban, suburban and rural, submitted to the Montgomery County Planning Board. Private recreation facilities provided through these guidelines offer an important complement to the public park system in the county, however, the need for public parks as estimated in the Parks, Recreation and Open Space (PROS) Plan is not diminished.

The Planning Board and staff will use the Recreation Guidelines to determine whether the recreational amenities proposed for a residential development application are adequate for future residents' recreation needs. In the case of a multi-phased development, a comprehensive recreation plan will be reviewed in the first phase. The recreational needs of the entire development will be considered when individual phases are reviewed. These private recreation facilities will be maintained by a homeowners' association, a management company or a condominium association.

In the guidelines, the terms “neighborhood” and “community” are used interchangeably to refer to a proposed subdivision or project. Also used are the terms “block” to reference the setting for an urban area, “high-rise” to reference multi-unit residential development of more than five stories, “mid-rise” to reference a multi-unit residential development of five or fewer stories, and “building” to refer to a particular residential structure. Except where noted, none of the specific guidelines are an absolute requirement; rather, the guidelines seek to offer flexibility for recreation on a proposed development in the context of the block or neighborhood, and nearby public parks.

The guidelines establish adequate and appropriate provisions for recreation. In some cases, they may conflict with other county policies. In all cases, the Planning Board may opt to weigh those goals more heavily than recreational adequacy.

1.5 General Development Application Requirements

These guidelines are established under Section 6.3.9 of the Montgomery County Zoning Ordinance, which requires the Planning Board to adopt guidelines that establish the minimum standards and requirements for recreation facilities, above those standards, requirements, or rules set forth in the Zoning Ordinance, for development of a property with more than 19 residential units.

Under Section 7.3.4.E.2(f) of the Zoning Ordinance, the Planning Board must find that a proposed site plan provides safe, well-integrated open spaces and site amenities, which includes recreation facilities. To approve a preliminary plan of subdivision, the Planning Board must find that the layout of the proposed subdivision is appropriate given the type of development or use contemplated, including that it meets the applicable requirements of the Zoning Ordinance. Therefore, a residential development with more than 19 dwelling units requires recreational facilities to be provided in accordance with these guidelines.

The adopted 2017 Recreation Guidelines will become effective 60 days after the Planning Board's approval. Development Applications submitted on or after that date will be subject to the 2017 Guidelines.

The Planning Board is authorized to approve or deny a proposed recreational facility on a case-by-case basis as well as apportion master plan, sector plan and PROS plan bonuses.

1.6 1992 Recreation Guidelines Method

The 1992 Guidelines were implemented through a quantitative method with site design and facilities criteria. Those guidelines used a point system to evaluate the facilities proposed under site plan application for adequacy to serve a range of five age groups: tots (0-4), children (5-11), teens (12-17), adults (18-65) and seniors (65+). The method established the quantitative level of recreation demand for each age group based on county demographics and the project's residential building type, such as single-family detached, single-family attached, mid-rise multi-family structures or high-rise buildings. The algorithmic method balanced recreation demand by providing a supply value-leveled menu of recreation amenities from which developers selected facilities during the regulatory approval process, thereby setting the recreation supply to balance recreation demand.

In 1992, most new residential development proposed expansion of suburban communities. The recreation supply menu was designed for subdivisions (tot lots,

tennis courts, soccer fields are examples). The guidelines included a small number of urban facilities, such as indoor community space and fitness facilities.

The 1992 guidelines have served suburban neighborhood planning well, and continue to largely accommodate this development type successfully. The methodology has proven sound over the past 25 years and its basic structure is employed for this update. However, there are cases in which the results have yielded a selection of amenities that satisfy the required points, but may not have provided an effective and efficient recreation plan for a community. Additionally, because the 1992 guidelines focused on suburban development, the facility solutions for urban areas included in the supply menu are limited.

1.7 Web Tool

The new interactive web tool is a valuable resource to help developers and the public understand the different options available to meet the recreation needs of private residential development. The web site for the Guidelines is designed as a user-friendly, prompted, graphical-based tool that offers views of a proposed development through mapping, aerial photography and applicable master plan boundaries.

Incorporating the 1992 quantitative method, the tool performs calculations, based on the proposed density and building type, a project's recreation demand by age cohort, i.e., tots, children, teens, young adults, adults and senior citizens, thereby determining the demand points. For example, in a multi-unit residential building of more than five stories (high-rise) proposed, the recreation demand for tots computes to four, young adult demand yields seven and senior citizens, 46.

Recreation supply is tested by selecting from the menu of standard recreation facilities. The web tool offers recreational amenities specified in a selected master plan for those sites located in the optional method zones. The web tool integrates the demand points and the supply points, and quantifies the adequacy, surplus or shortage of the recreation amenities for each of the six age cohort groups.

The web tool allows applicants and members of the community to evaluate different recreational amenities. Comparative and contrasting scenarios may be calculated as well, illustrating varied recreation solutions created using a differentiated selection of facilities. For example, recreation adequacy can be evaluated for a multi-unit residential building of more than five stories (high-rise) featuring three scenarios: a rooftop pool and deck lounge; an indoor fitness facility, an internet café and a coffee bar; or, an outdoor public plaza and bicycle support station. These methodologies and the web application incorporate standard measures for estimating recreation demand of a future population, using the U.S. Census Bureau's Public Use Microdata Set (PUMS) of the American Community Survey 2010-2014 and evaluating the recreation supply by a relational data set.

One strength of the web tool and its algorithms is allowing developers to analyze different amenities options. Standard data, such as demographics, locational data and master plan recommendations and information, may be updated easily and new facilities may be added or deleted in a timely manner. In addition, the system uniquely offers a new quantitative method to evaluate future recreation facility choices through its Custom Facility Tool.

The Custom Facility Tool, incorporated into the interface, establishes threshold benefits for new types of recreation facilities. Its quantitative program sets the recreational benefit benchmark by evaluating basic criteria. The calculator may be used in the course regulatory plan review to establish supply values for newly proposed recreational facilities, pending approval by the Planning Board.

Chapter 2:

Recreation Demand Overview



2.1 Approach to Establishing Demand

Recreation demand represents the need for recreational amenities for a proposed private residential development. These need levels are determined by demographic data and housing type, articulated by a point system, that is, “demand points” for each of six age group categories and each type of residential building structure. The supply portion of the equation must match this demand.

The 2017 Recreation Guidelines, as the 1992 Guidelines, utilize a classification of housing types based on U.S. Census building structure types. They do not use the residential use categories as defined in the Montgomery County Zoning Ordinance. See Section 2.2.2 below for details.

2.1.1 Recreation Trends

Recreational, fitness and activity trends are significant factors that contribute to the evaluation of the amenities included in the Recreation Facilities List (pages 16-17). Primary sources for trends include the Parks, Recreation and Open Space (PROS) Plan and the 2016 Sports and Fitness Industry Association Topline Participation Report.

The 2012 PROS Plan utilized the Vision 2030 Survey completed in 2010, which established the Montgomery Department of Parks future programming to meet community needs. Important aspects addressed in the PROS Plan are the role of parks within the open space system and the guidelines for urban parks. The PROS Plan recommends specific public spaces in dense areas, such as urban plazas, through-block connections, neighborhood greens and pocket greens.

Integrating music and the arts within a play setting provides a valuable dimension for children in terms of their development in social, cultural and physical ways. Recreation settings that offer the opportunity to use interactive elements of music and art to stimulate creativity in children and adults are featured as a significant recreation element for tots and children.

2.1.2 Recreation Needs

Two areas for specific recreational activity currently in great demand in Montgomery County are bicycle facilities and dog parks. Careful study of these recreational activities yielded a menu of primary facilities with supportive facilities to fulfill a wider range of needs.

Also considered are the particular recreational needs of teenagers. Facilities geared toward teenagers include skate parks, skate spots, indoor soccer and rock climbing, and social activity settings. Facilities for young adults (ages 18-34) feature a menu of “high-rise” amenities because demographics reflect increasing levels of residency for this age group in this building type.

Finally, there is a need for innovative inclusionary playgrounds for children with a

range of disabilities. The inclusionary playground provides specific, assistive play equipment and supportive technology to create opportunities for children with disabilities to participate fully in sports or recreational pursuits alongside their non-disabled peers.

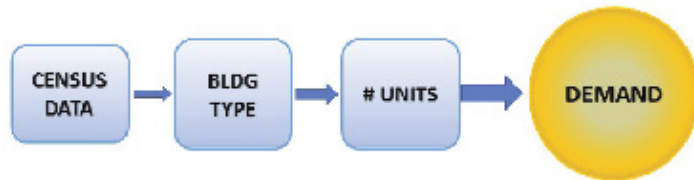
2.1.3 Calibration of the 1992 Method

The 1992 Recreation Guidelines provide a time-tested model for recreation facility assessment. Innovative for their time, the guidelines established a consistent and a predictable method for recreational assessment. The 2017 update retains the methodology of balancing supply and demand. Supply point values for existing facility types are retained with minor alterations.

2.2 Estimating Demand for Recreation

Recreational demand for future residents of new residential development are derived from age profiles of Montgomery County residents living in recently constructed housing, built between 2005 and 2014.

This time frame includes the 2008 recession and the subsequent building resumption to most accurately reflect recreational demand expected from future residents in new developments affected by the new Recreation Guidelines. Estimating recreation demand is based on the assumption that the demand varies by the person's age and the type of housing or living unit.



2.2.1 Age Groups

Age categories are expanded for the 2016 Guidelines to include a new group: young adults. Recreational demand in Montgomery County is now estimated for six age groups living in four housing types, totaling 24 age subcategories. The age groups include tots (0-4), children (5-11), teens (12-17), young adults (18-34), adults (35-64) and seniors (65+), as shown in Table 2.2.1 below. Four housing types include detached houses, townhouses, multi-family (“mid-rise”) and multi-family (“high-rise”) structures. See also Table 2.2.2 (below).

Table 2.2.1 -- Age Categories						
Demand Category	D1	D2	D3	D4	D5	D6
Age Category	Tots	Children	Teens	Young Adults	Adults	Seniors
Age Range	(age 0-4)	(age 5-11)	(age 12-17)	(age 18-34)	(age 35-65)	(age 65+)

2.2.2 Housing Types per Census Categories

Table 2.2.2 -- Recreation Guidelines Building Structure Types

Label	Building Structure Type Categories	Zoning Ordinance Definition	Description
DH	Detached House	Single Unit Living	One dwelling unit contained in a detached house.
TH	Attached House	Townhouse Living	Three or more dwelling units in a townhouse building.
Mid-Rise	Mid-rise or Garden Apartment	Multi-unit Living	4 residential stories or less (typically wood frame).
High-Rise	High-rise or Tower Apartment		5 or more residential stories (typically concrete).

Clockwise from top left:

*Detached Housing (DH),
Kensington, MD*



*Attached Housing (TH),
Montgomery County, MD*



*Mid-Rise Housing (MR),
Union Housing,
San Francisco, CA
SB Architects, Palisades Development*



*High-Rise Housing (HR),
Stack Building
New York, NY
Gluck Architects*



2.2.3 Recreational Demand Points

The 2017 Guidelines provide a standard measure for estimating the recreational demand of the future population of a proposed residential development project by using the current census data for the county and the building type conversion factors based on the residential building types listed in Table 2.2.2.

Recreational demand is measured against supply of recreational amenities associated with the proposed facilities to determine facility adequacy for the new development.

Estimated demand is the product of the age distribution of residents living in recently constructed housing weighted by the recreational conversion factors specific to age group and housing type.

Chapter 3:

Recreation Supply

3.1 Evaluating Supply of Recreational Facilities

3.1.1 Supply Valuations

The 2017 Recreation Guidelines feature 80 recreation facility types. The update proposes 53 new recreation facility types, while 27 facility types have been carried over from the 1992 Recreation Guidelines. Of the 80 facilities listed, 67 are “Full Recreation Facilities,” that may be selected as stand-alone facilities; 12 facilities listed are recreation elements. See Section 3.2.1 below.

The recreational facilities proposed are evaluated based on the recreational benefit for each of the six population categories. The Facilities List (pages 16-17) shows value levels for every recreation facility type or recreational element for each of the six age categories.

Most facility types carry absolute supply point values based on factors such as category of use and capacity. Supply values for newly added facilities were considered in relation to existing facilities, trending factors, master plan and sector plan recommendations, and needs referenced in the PROS Plan.

Some facilities for large groups or an undetermined number of users are valued by using a general formula based on each age group’s demand points. The size and capacity are determined for each development independently.

3.2 New Features of Recreation Supply

3.2.1 Recreation Elements



A new concept in the 2017 Recreation Guidelines is that of recreation elements. Recreation elements comprise a category that describes small, individual components that may be used in a variety of ways:

- Create a specialized theme, such as music, for a recreational space.
- Enhance the visual, auditory or physical experience of the user.
- Focus the setting for a particular age group.
- Enhance the design of the overall facility.
- Integrate small community spaces, urban or limited recreational spaces, into the contextual environment through small-scale, specialized elements.



A recreation element typically does not stand on its own; it may be used to supplement a full recreation facility that is selected from the facility types listed. For example, interactive art or music elements may be used within a neighborhood green or an open grass area to create a music park.

Additionally, these elements may be used for a recreational setting where a small number of supply points are needed to satisfy the recreation demand for a particular age group. Element points are added to the full facility points to complete the match for supply point requirements. Recreation Elements are identified in Section 3.3.5.

3.2.2 Incentives and Bonuses

The creation of effective recreational opportunities for transit-oriented areas requires attention to building form and open space, joining new and existing facilities and integrating private and public realms. .

Certain public facilities identified by the master plan, sector plan or PROS Plan, or those that meet the needs of a particular age group or geographic area, accrue incentive supply valuations as a bonus percentage. See Section 7.2 on page 31.

3.3 Recreation Categories and Classifications

The 2017 Recreation Guidelines classifies facilities into general categories of facilities types, based on the recreation amenities offered by the Montgomery Parks Department. The general categories, shown in Table 3.1 (below), offer an organizing framework for facility types. They allow comparison of similar types of facilities for the space and setting of a specific project site. The groupings allow consideration of the needs of future residents for a proposed residential development.

Facility references may be found on pages 16-17. Definitions for each facility type may be found in the Appendix, Section 10.1.

3.3.1 New Urban Recreation Facilities

The 2017 Recreation Guidelines are updated to reflect demographic shifts in the county, including the need for urban recreation options to serve high-density, mixed-use development. The urban recreation facilities may be used in any area of the county.

3.3.2 New Countywide Recreation Facilities

The update also introduces new facility types for all areas of the county.

3.3.3 New Community Facilities

Eight new Community Facility types are featured in the updated guidelines. These facilities are typically provided under optional method development.

3.3 RECREATION CATEGORIES AND CLASSIFICATIONS

	Category	Descriptions
	ACTIVE CONNECTIONS	Trail System Fitness Trail Heart Smart Trail
	BICYCLE FACILITIES	Bikeway Bicycle Support Station or Repair Room Bicycle Parking Garage
	DOG FACILITIES	Dog Park or Dog Run Dog Cleaning Station
	COMMUNITY FACILITIES	Indoor Community Space Indoor Performance Space
	INDOOR FITNESS OR SPORTS	Indoor Exercise Space Indoor Sports Court
	OPEN LAWN AREAS	Open Lawn Area Large Open Lawn Area Small Open Lawn Area Urban
	PASSIVE OUTDOOR RECREATION	Natural Areas Restored Streams Community Garden or Ornamental Garden
	CHILD PLAY AREAS	Tot Lot Playground Multi-Age Playground Inclusionary Playground
	URBAN RESIDENTIAL AMENITIES	Amenities provided within a Multi-family Building
	SPORT COURTS OUTDOORS	Basketball Courts Tennis Court Volleyball, Badminton Multipurpose Court
	SPORTS FIELDS	Outdoor Diamond Fields: Baseball, Softball Outdoor Rectangle Fields: Soccer, Lacrosse
	URBAN FORMAL SPACE	Public Open Space: Plaza, Green, Through-Block Connection
	SWIMMING SPORTS	Outdoor Pool or Indoor Pool Wading Pool Lap Pool Lounge Pool
	ADVENTURE SPORTS	Rock or Boulder Climbing Skate Park or Skate Spot
	MAJOR PUBLIC FACILITIES	Public Park or Urban Park Civic Green Recreation Center School Athletic Field
	RECREATION ELEMENTS	Individual Recreation Components

3.3.4 New Urban Recreation Facilities

The 2017 Recreation Guidelines reflect demographic shifts in the County, highlighting the need for urban recreation options to serve high-density, mixed-use development. Recreation facility types appropriate for urban areas are found under the Urban Residential Amenities category and within general recreation categories. The urban recreation facilities may be used in any area.

Table 3.2 -- New Recreation Facility Types Suitable for Urban Areas		
Facility Type	Description	Facility References
Dog Facilities	Dog Park, Dog Run, Dog Cleaning Station	(8-10)
Urban Formal Open Space	Urban Plaza, Through-Block Connection, Neighborhood Green, Pocket Park	(37-40)
Open Grass Areas - Urban	Open Lawn Area of 2,000 Square Feet	(21)
Urban Residential Amenities	Resident Lounge, Screening Room, Interior Courtyard, Roof Amenities, Internet Cafe, Coffee Bar, Community Kitchen, Grilling Area, Yoga Room, Lap Pool, Lounge Pool, Bowling Alley	(30-36)
Ornamental Garden	Sculpture Garden or Art Garden	(25)
Outdoor Interactive Art or Music	Outdoor Sculpture and Sound Elements	(70)
Outdoor Performance Setting	Space for Performance or Busking: Park, Street, Open Space	(78)

3.3.5 New Countywide Recreation Facilities

The update also introduces new facility types for all areas of the county. Eight new Community Facility types are featured in the updated guidelines. These facilities are typically provided under optional method development.



Table 3.3 -- New Countywide Recreation Facility Types		
Facility Type	Description	Facility References
Bicycle Facilities	Support Station, Repair Room, Parking Garage, Wheel Ramp	(5-7) (79=80)
Active Connections	Pedestrian Connections, Heart Smart Trail, Fitness Trail, Ped Bridge	(1-4)
Renovated Stream	Repaired Stream Bed or Restored Naturalized Area	(23-24)
Futsal Court	Indoor Soccer	(17)
Lap Pool or Lounge Pool	Exercise or Social Settings for Communities	(56-57)
Inclusive Adult Rec Center	Assistive Recreational Setting and Equipment for Playground	(29)
Inclusive Recreation Playground	Outdoor Rec Center with Sensory Balanced & Accessible Facilities	(67)
Performance Setting	Recreation Element for Open Space	(78)
Skate Park and Skate Spot	Settings Designed for Adventure Sports	(59-60)
Rock Climbing	Adventure Sports	(58)

3.3.6 New Community Facilities

The update also introduces new facility types for all areas of the County.

Table 3.4 -- New Facilities Serving Communities		
Facility Type	Description	Facility References
Performance Space Indoor or Outdoor	Public open space that provides settings for performances within a building structure or designed as part of outdoor open space.	(12) (78)
Inclusive Recreation	Specialized playground offering assistive facilities for disabled children to play along side able-bodied peers; a specialized accessible and sensory balanced recreation center for adults.	(29) (67)
Futsal Court	Indoor soccer	(17)
Dog Park, Dog Run	Public dog park featuring a full range of amenities,	(8) (9)
Renovated Stream or Naturalized Area	Natural areas such as woods or meadows or a restored stream valley for exploration and passive recreation.	(23-24)
Pocket Green	A small park accessible to the public that is frequently created on a vacant building lot or small, irregular piece of land.	(40)
Neighborhood Green	A strategically located open green space that functions as a meeting place and landmark.	(39)
Urban Plaza	An open space designed for public use and surrounded by buildings and or streets. The space should encourage social interaction and activities, provide relief and relaxation, reinforce the public realm and contribute to community livability.	(37)
Through-Block Connection	A form of public space providing a pedestrian route through an urban block and defined by its adjoining building lines, special paving or landscaping.	(38)



The Musical Trail, Boscombe Pier, Bournemouth, UK

Instruments by Percussionplay.com

3.3.7 Major Public Recreation Facilities

The category of Major Public Facilities, provided as public amenities through the optional method application process, is included in the Recreation Facilities List. Land dedication must be reviewed under the Public Open Space Requirements (Section 6.3) of the Zoning Ordinance. Recreation supply credit is applied for those facilities constructed within the public open space. Development projects that may be subject to the proposed Montgomery County Department of Parks Adequate Public Facilities Fees established in the future, earn recreation supply credit for both land dedication and the constructed recreation facilities, subject to the provisions of the policy or regulation.

Table 3.5 -- Major Public Facilities

Facility Type	Description	Facility ID and References
Public Park Construction	A public park, typically designed and constructed for Montgomery County Department of Parks.	(61)
Community Use Urban Park Construction	A public park for active recreation typically designed and constructed for Montgomery County Department of Parks.	(62)
Civic Green	A major public open space strategically located for community use.	(63)
Recreation Center	A substantial community facility for recreation and exercise.	(64)
School Athletic Fields	Sports facilities constructed as part of a Montgomery County Public Schools and open for public use at specific hours.	(65)

3.3.8 Recreation Elements

The updated guidelines offer Recreation Elements, a category of small, individual components intended for a recreational setting where a small number of supply points is needed to satisfy recreation demand. A Recreation Element may not stand on its own, but may be used to supplement a Full Recreation Facility.

Table 3.6 -- The Recreation Elements

Facility Type	Description	Facility References
Picnic or Seating Area	Benches or picnic table.	(68)
Public Art Seating	Sculptural, multi-use objects for seating and play.	(69)
Interactive Outdoor Music and Art Elements	Outdoor musical play equipment, instruments or musical themed furniture; Outdoor climbing sculptures.	(70)
Landscape Elements for Toddlers	Outdoor child play area defined by organic landscape design.	(71)
Outdoor Fitness Stations	Adult and child-sized fitness equipment for outdoor installation.	(73)
Outdoor Game Elements	Chess Tables or outdoor life-sized checker boards.	(72)
Inclusive Recreation Elements	Adaptive recreation equipment, sensory balanced, accessible.	(74)
Terraced Garden Areas	Landscaped, hardscaped terraces for urban buildings or areas of significant grading.	(75)
Building Elements	Stairs, steps, ramps, railings, porches.	(76)
Grilling Area	An outdoor amenity area featuring cooking grills, seating and shade.	(78)
Outdoor Performance Setting	Space for performance or busking: park, street, open grass area.	(70)
Bicycle Wheel Ramp	Ramp along public stairs to assist cyclists in traversing steps.	(79)
Bicycle Support Station	An outdoor repair kiosk containing tools for repairs. Stations may be located on bike trails or on public or private streets.	(80)



Musical Tembós, Jan Kochanowski Park, Bydgoszcz, Poland.

Instruments by Percussionplay.com

3.4 Facilities and Supply Values

Shading denotes new facilities types

Table 3.7 Recreation Facilities and Supply Values									
2016 Recreation Facilities				D1 Tots	D2 Children	D3 Teens	5 Young-Adults	D5 Adults	D6 Seniors
	#	Facility Name	Page	Facility Supply Values					
Active Connections	1	Pedestrian Connection - Trail System	36	0.10 x D1	0.20 x D2	0.15 x D3	0.15 x D4	0.15 x D5	0.10 x D6
	2	Heart Smart Trail	38	0	9	10	12	12	12
	3	Fitness Trail	39	0	8	12	14	14	7
	4	Pedestrian Bridge	40	5	10	12	12	12	12
Bicycle Facilities	5	Bikeways	41	0.05 x D1	0.10 x D2	0.15 x D3	0.15 x D4	0.15 x D5	0.10 x D6
	6	Bicycle Repair Room (indoor)	42	0	9	10	12	10	5
	7	Bicycle Parking Garage	43	0	7	14	14	12	5
Dog Facilities	8	Dog Park	44	0	2	3	5	6	6
	9	Dog Run	46	0	0	4	5	6	6
	10	Dog Cleaning Station	48	0	0	2	3	3	3
Community Facilities	11	Indoor Community Space	49	0.10 x D1	0.15 x D2	0.30 x D3	0.30 x D4	0.30 x D5	0.40 x D6
	12	Performance Space (Indoor)	50	4	8	8	9	10	9
	13	Indoor Gymnasium or Exercise Room	51	0.10 x D1	0.10 x D2	0.30 x D3	0.30 x D4	0.30 x D5	0.40 x D6
	14	Adaptive Sensory Gymnasium (Indoor)	52	9	9	7	7	5	5
	15	Yoga Room	54	0	2	4	9	9	9
	16	Racquetball/Handball/Squash	55	0	1.5	10	20	20	2
	17	Futsal Court	56	0	7	6	7	5	0
	18	Indoor Fitness Room	57	0.00 x D1	0.10 x D2	0.10 x D3	0.25 x D4	0.20 x D5	0.15 x D6
Open Lawn Areas	19	Open Grass Area Lawn - Small (5,000 sf)	58	3	4	9	9	9	3
	20	Open Grass Area Lawn - Large (10,000 sf)	60	6	9	15	20	15	6
	21	Open Grass Area Lawn - Urban (2,000 sf)	62	2	3	5	7	8	3
Passive Outdoor Recreation	22	Natural Area	64	0.05 x D1	0.05 x D2	0.10 x D3	0.10 x D4	0.10 x D5	0.05 x D6
	23	Renovated Stream or Naturalized Area	66	0.10 x D1	0.10 x D2	0.20 x D3	0.20 x D4	0.20 x D5	0.10 x D6
	24	Community Garden	68	0.10 x D1	0.10 x D2	0.10 x D3	0.15 x D4	0.20 x D5	0.25 x D6
	25	Ornamental Garden or Sculpture Garden	69	2	3	3	7	8	5
Child Play Areas	26	Playground (Age 2-5) [Tot Lot]	70	9	2	2	3	3	3
	27	Playground (Age 5-12) [Play Area]	72	0	9	3	2	4	2
	28	Playground (Age 2-12) [Multi-age Play]	74	9	11	3	2	4	2
	29	Inclusive Recreation Playground	76	12	12	4	3	10	8
Urban Residential Amenities	30	Resident Lounge	78	0	2	5	10	8	7
	31	Screening Room	79	0	2	6	7	7	2
	32	Interior Courtyard, Garden or Lawn	80	2	3	4	7	7	5
	33	Multi-Purpose Lobby Area	82	0	0	2	3	3	2
	34	Internet Cafe	83	0	0	5	7	4	3
	35	Rooftop Amenity	84	0	2	7	10	7	5
	36	Community Kitchen	85	0	0	2	9	10	6
Urban Formal Space	37	Urban Plaza	86	4	6	6	18	15	6
	38	Through-Block Connection	87	3	5	5	10	8	5
	39	Neighborhood Green	88	5	7	6	8	8	6
	40	Pocket Green	89	3	5	5	8	8	6

Table 3.7 Recreation Facilities and Supply Values									
	2016 Recreation Facilities			D1 Tots	D2 Children	D3 Teens	Young-Adults	D5 Adults	D6 Seniors
	#	Facility Name	Page	Facility Supply Values					
Sport Courts Outdoor	41	Basketball – Full Court	90	3	10	15	12	6	2.5
	42	Basketball – Half Court	90	2	5	7	10	6	1
	43	Basketball – Adaptive Use	91	0	9	10	14	12	12
	44	Tennis Court	92	0	5	7	10	6	1
	45	Tennis -- Adaptive Use	93	0	9	10	14	12	12
	46	Volleyball or Badminton	94	2	2	3	10	6	1
	47	Multipurpose Court	95	3	10	15	10	8	2.5
Sport Fields	48	Baseball-Softball Diamond – Large	96	2	15	20	25	15	2
	49	Baseball-Softball – Small	96	1	7	10	12	7	2
	50	Soccer -Lacrosse Rectangle – Large	97	2	15	20	25	15	2
	51	Soccer -Lacrosse Rectangle – Medium	97	1	12	10	12	8	2
	52	Soccer -Lacrosse Rectangle – Small	97	1	10	8	10	8	2
Swimming Sports	53	Swimming Pool – Outdoor	98	0.05 x D1	0.20 x D2	0.20 x D3	0.35 x D4	0.25 x D5	0.10 x D6
	54	Swimming Pool –Indoor	99	0.10 x D1	0.20 x D2	0.40 x D3	0.40 x D4	0.30 x D5	0.40 x D6
	55	Wading Pool	100	0.20 x D1	0.05 x D2	0.00 x D3	0.00 x D4	0.05 x D5	0.05 x D6
	56	Lap Pool	101	0.00 x D1	0.30 x D2	0.40 x D3	0.50 x D4	0.30 x D5	0.15 x D6
	57	Lounge Pool	102	0.00 x D1	0.00 x D2	0.25 x D3	0.40 x D4	0.30 x D5	0.15 x D6
Adventure Sports	58	Rock Climbing	103	0	0	9	12	6	1
	59	Skate Park	104	0	6	10	12	7	1
	60	Skate Spot	105	0	4	9	11	5	1
Major Public Facility	61	Public Park	106	4	5	8	12	10	8
	62	Community Use Urban Park	107	4	5	8	12	10	8
	63	Civic Green	108	6	9	15	20	15	6
	64	Community Recreation Center Indoor	109	0.10 x D1	0.20 x D2	0.30 x D3	0.30 x D4	0.30 x D5	0.40 x D6
	65	School Athletic Field (Publicly Accessible)	110	2	20	25	25	25	2
	66	Cultural Facility (Dance, Performance)	111	6	10	14	16	16	16
	67	Inclusive Recreation Center for Adults (Outdoor)	112	2	4	12	25	25	25
Recreation Elements	68	Picnic/Seating	114	1	1	1.5	3	3	3
	69	Public Art Seating - Active Multi-use	115	5	5	5	5	5	5
	70	Interactive Outdoor Music and Art	116	5	5	3	2	4	4
	71	Landscape Elements -Toddlers & Children	118	4	3	3	2	4	4
	72	Outdoor Game Station	120	0	0	3	3	2	2
	73	Outdoor Fitness Station	121	0	2	4	9	9	9
	74	Inclusive Adaptive Recreation Elements	122	4	6	6	9	9	9
	75	Terraced Garden Area	124	2	2	2	2	2	2
	76	Stairs, Steps and Railings	125	0	3	4	5	5	4
	77	Grilling Area	126	0	0	2	6	6	5
	78	Performance Setting - Stage Outdoor	127	2	5	4	4	6	6
	79	Bicycle Wheel Ramp	128	0	0	1	2	2	1
	80	Bicycle Support Station	129	0	0	3	3	3	3

Chapter 4:

Determining Adequacy of Recreation Facilities



4.1 Instructions: Matching Demand and Supply



The 2017 Recreation Guidelines define the steps necessary to establish the recreational demand for a private residential development project and the procedure by which to determine a set of recreational facilities that satisfies recreational demand. Each applicable development proposal carries a recreation demand level for each of six age groups. As noted in Chapter 2, demand yield is generated by the number of residential units proposed, the building type and the demographic data from the 2014 U.S. Census for Montgomery County. Recreation supply is calculated by referencing point levels assigned to specific recreation facility types aggregated to yield the full supply level for each age category.

The sum of supply points **should match within 10 percent or exceed the demand points for each population category**. The web tool calculator adjusts for this matching criteria. The regulatory reviewer will assure that additional objectives, such as diversity of recreational experiences or the context of facilities within the site, are met. In the case of a multi-phased development, recreation needs for the entire development must be considered when individual phases are reviewed.

Recreation Guidelines Website and Statistical Data

The 2017 Recreation Guidelines are accessible on the Planning Department's website is <http://montgomeryplanning.org/development/recreation>.

The Recreation Guidelines Web Tool address: <https://mcatlas.org/recreation>.

Current statistical data and indexed tables are part of the calculation method, which will change with updated population surveys. These tables are located on the website. Because the guidelines are created as an interactive web tool, information generated by the U.S. Census and other sources may be easily updated and integrated into the calculator in a timely manner.

Demand Data Updates

Recreation demand data utilize U.S. Census statistics from the American Community Survey, which provides source demographics and housing construction data. The updated, aggregated information will be formatted and imported every five years into the database to produce updated recreational demand levels.

Supply Data Updates

Recreational supply data must be updated in a number of ways:

- Concurrently with bi-annual Montgomery Parks Facilities Construction database updates.
- Concurrently with updates to area master plans, sector plans and the PROS Plan.
- When a custom facility approved by the Planning Board is certified at final inspection, it will be incorporated as a standard recreational facility.
- At the time when approved development plans that contain public open space or publicly accessible space are certified at final inspection.

4.1.1 Step 1: Calculating Demand Points



Using the link on the Recreation Guidelines Web Page, launch the Recreation Calculator:

- Under the “Quantity” column, enter the number of residential units for each building type proposed. Click the “Save” button.
- The web tool will calculate recreation demand points for each age cohort

STEP 1 ENTER NUMBER OF HOUSING UNITS (CALCULATE DEMAND POINTS)

Housing Type	Housing Type...	Quantity	Tots	Children	Teens	Young Adults	Adults	Seniors
Single-Family Detached	SFD	0	0.00	0.00	0.00	0.00	0.00	0.00
Townhouses and Single-Family attached	TH	20	2.80	4.40	3.20	10.60	14.60	2.20
Multiple-Family, 4 stories or less	Mid-Rise	0	0.00	0.00	0.00	0.00	0.00	0.00
Multiple-Family, 5 stories or more	Hi-Rise	100	10.00	7.00	3.00	73.00	56.00	25.00
Total Demand Points:			12.80	11.40	6.20	83.60	70.60	27.20

4.1.2 Step 2: Geolocation of Project Site, Master Plan Boundaries, Park Facilities, Trail System



Scroll down the web page to Step 2. This section features a live online map that shows the project site with lot lines within the current master plan area.

- With the map visible, use the zoom tool to focus on the project site or use the address locator box. Parcel boundaries are displayed.
- Click on the project site location noted with a point. The web tool performs three functions related to the projects location:

1. Master Plan Recommendation

The tool references the Facility Incentive Table (described in Section 2.2.1.4) to determine if the subject location site lies within a master plan area for which a facility incentive has been applied. The tool applies the incentives to the menu used in the next step (Step 3).

2. The Montgomery County Department of Parks Facilities

The tool performs a spatial-data query of existing Montgomery County Department of Parks facilities and Montgomery County Public School sites that may be utilized for recreation supply credit. The selected off-site public facilities will appear in a pop-up grid that displays recreation supply values for the facility.

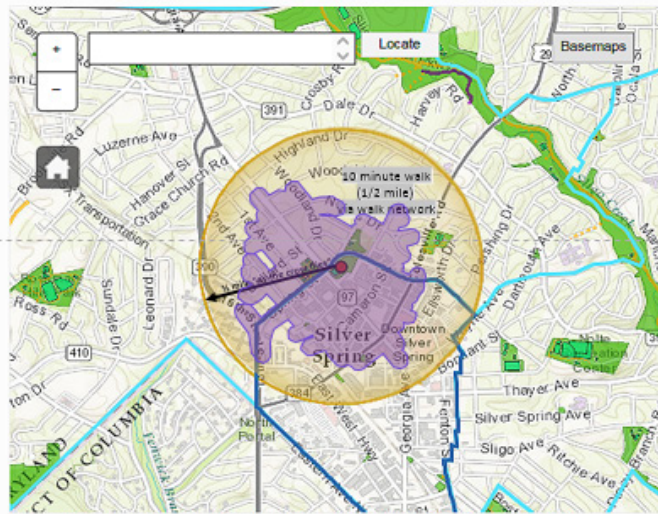
3. Walk sheds

With the geo-spatial query function, the web tool illustrates the walk shed for 10-minute pedestrian routes from the proposed project and nearby public recreation facilities located within the 10-minute walk.

The web tool additionally offers a "pedestrian route extension." This component function may be used in the case of trail or pedestrian route extension that may create a newly extended walk shed that provides access to an off-site public recreational facility. See also Chapter 6, page 27 and Appendix, Section 10.4 for methodology..

STEP 2 GEO-LOCATION: CLICK ON THE MAP TO CHOOSE THE PROPOSED PROJECT LOCATION

☒ Master Plans ☒ Parks ☒ Facilities ☒ Trails ☒ Parcels



Project is located in Master Plan: SILVER SPRING CBD

OFFSITE FACILITIES WITHIN HALF MILE RADIUS FROM PROJECT LOCATION

Quantity	Park Facility	Tots	Children	Teens	Young Adults	Adults	Seniors
1	Basketball Ct	3	10	15	12	6	2.5
1	Handball Ct	0	1.5	10	20	20	2
2	Tennis Ct	0	3	20	32	24	6
4	Playground	0	36	12	8	12	8
Total Offsite Supply Points:		3	50.5	57	72	62	18.5
35% of Total Offsite Supply Poi...		1.05	17.68	19.95	25.2	21.7	6.48
Max Allowed Pts (35% of Total...		0	0	0	0	0	0
Actual Assigned Offsite Supply...		0	0	0	0	0	0

Step 3: Calculating Supply Points

SUPPLY

This section contains the on-line worksheet for calculating recreation supply points. A large menu of standard recreation facilities is shown in a grid format. Select the desired recreation facilities as follows:

In the Column 1 on the far left labeled "Quantity," enter the number of facilities of each type. Typically, the number will be "1."

Column 2 shows recreation facility types.

A bonus percentage appears in Column 3 next to the facility name if the facility is eligible for a bonus or is a master plan-recommended facility.

- The supply value pertaining to each of the six age categories is displayed for each selected facility, under Columns 4- 9. Total values for facilities selected are shown in the blue columns at the far right. Click "Save."

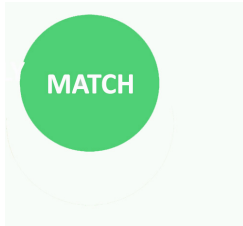
STEP 3 ENTER NUMBERS OF PROPOSED RECREATION FACILITIES (CALCULATE SUPPLY POINTS)

ADD CUSTOM FACILITY

Col 1	2	3	4	5	6	7	8	9						
Quantity	Recreation Facility	Bonus...	Tots Pts	Children Pts	Teens Pts	Young Ad...	Adults Pts	Seniors Pts	Tots	Children	Teens	Young Adults	Adults	Seniors
1	Dog Park	10%	0	2	7	8	8	8	0	2.2	7.7	8.8	8.8	8.8
1	Indoor Community Space		.1xD1	.15xD2	.3xD3	.3xD6	.3xD4	.4xD5	1.28	1.71	1.86	25.08	21.18	10.88
1	Performance Space Indoor		4	8	8	9	10	9	4	8	8	9	10	9
1	Yoga Room		0	2	4	9	9	9	0	2	4	9	9	9
1	Indoor Fitness Room		0xD1	.1xD2	.1xD3	.25xD6	.2xD4	.15xD5	0	1.14	0.62	20.9	14.12	4.08
1	Interior Courtyard, Garden...		2	3	4	7	7	5	2	3	4	7	7	5
Total Supply Points:									7.28	18.05	26.18	79.78	70.10	46.76

SAVE CANCEL

4.1.4 Step 4: Comparing Supply and Demand



Arriving at a selection of recreation facilities that satisfies recreation demand is an iterative process. Revisions of supply selections will allow the user to run comparative quantitative trials to assess the choices offered in the recreation supply menu and ensure that recreation demand is met for all six age categories.

In the example below, referencing the development in Step 1, housing density and building type are identified as 20 townhouses and 100 multi-unit residential living units (high-rise). The supply selection set includes:

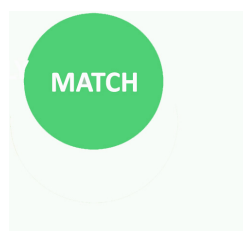
- Dog Park (note 10 percent bonus)
- Indoor Community Space
- Indoor Performance Space
- Yoga Room
- Indoor Fitness Room
- Interior Courtyard (open air).

The results for each age group are displayed in the Results Table, below, which includes demand and supply tables values. In the example below, Recreation Supply is shown by green check-marks as adequate for five age groups; The single red "X" indicates Recreation Supply for tots as inadequate.

STEP 4 VIEW RESULTS: DEMAND , SUPPLY , ADEQUACY

Age Group	Demand	Offsite Supply	Onsite Supply	Total Supply	Adequacy	Adequacy Icon
Tots (0 - 4 yrs)	12.80	1.05	7.28	8.33	Inadequate	✗
Children (5 - 11 yrs)	11.40	3.99	18.05	22.04	Adequate	✓
Teens (12 - 17 yrs)	6.20	2.17	26.18	28.35	Adequate	✓
Young Adults (18 - 34 yr)	83.60	25.2	79.78	104.98	Adequate	✓
Adults (35 - 64 yrs)	70.60	21.7	70.1	91.80	Adequate	✓
Seniors (65+ yrs)	27.20	6.48	46.76	53.24	Adequate	✓

4.1.5 Step 4, (continued): Revising Supply Selections Using Recreation Elements



Returning to Step 3 allows selection of alternative or additional facilities that may increase supply points for the age groups showing as inadequate.

In this example, a Recreation Element may also be used to advantage to enhance a space for young children and satisfy recreation demand for tots, while supplying additional supply points. Noting that an Interior Courtyard (open air) has already been selected, and the supply of tot recreation is insufficient, a component of Interactive Outdoor Art, such as a climbing sculpture, may be used within the Interior Courtyard to provide activity for tots, satisfy recreation supply for the group and define the character of the community space. With the addition of Interactive Outdoor Art element, the tot recreation supply gains five supply points, satisfying the requirements and providing adequate recreation for all six age categories. (See image below showing results.)

Below is an example of the iterative process used in for achieving adequate recreation supply.

STEP 3 ENTER NUMBERS OF PROPOSED RECREATION FACILITIES

ADD CUSTOM FACILITY

Quantity	Recreation Facility	Bonus P...	Tots Pts	Children Pts	Teens Pts	Young Ad...	Adults Pts	Seniors Pts
0	Public Park		4	5	8	12	10	8
0	Community Use Urban Park		4	6	6	14	14	6
0	Civic Green		6	9	15	20	15	6
0	Recreation Center		.1xD1	.2xD2	.3xD3	.3xD6	.3xD4	.4xD5
0	School Athletic Field (accessible to...		2	15	20	25	25	2
0	Cultural Facility (Dance, Acrobatics, ...)		6	10	14	16	16	16
1	Dog Park	10%	0	2	7	8	8	8
1	Indoor Community Space		.1xD1	.15xD2	.3xD3	.3xD6	.3xD4	.4xD5
1	Performance Space Indoor		4	8	8	9	10	9
1	Yoga Room		0	2	4	9	9	9
1	Indoor Fitness Room		0xD1	.1xD2	.1xD3	.25xD6	.2xD4	.15xD5
1	Interactive Outdoor Music and Art		5	5	3	2	4	4
1	Interior Courtyard, Garden or Lawn		2	3	4	7	7	5
Total Supply Points:								

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SAVE CANCEL

STEP 4 VIEW RESULTS: TOTAL DEMAND POINTS, TOTAL SUPPLY POINTS

Age Group	Demand	Offsite Supply	Onsite Supply	Total Supply	Adequacy	Adequacy Icon
Tots (0 - 4 yrs)	12.80	1.05	12.28	13.33	Adequate	✓
Children (5 - 11 yrs)	11.40	3.99	23.05	27.04	Adequate	✓
Teens (12 - 17 yrs)	6.20	2.17	29.18	31.35	Adequate	✓
Young Adults (18 - 34 yr)	83.60	25.2	81.78	106.98	Adequate	✓
Adults (35 - 64 yrs)	70.60	21.7	74.1	95.80	Adequate	✓
Seniors (65+ yrs)	27.20	6.48	50.76	57.24	Adequate	✓

4.1.6 Exporting the Recreation Adequacy Report

The on-line tool enables the production of reports for each recreation facilities selection set.

- Select the "Report" button at the bottom of the Results grid.
- The report may be exported as a PDF file or as a Microsoft Excel file for submission to the regulatory reviewer and as part of the project application with supporting documents stored in Projectdox.

Reports may be saved for each iteration of selection sets, allowing comparison across the age groups and facility types, along with consideration of off-site facilities within the 10-minute walk shed. See Step 5, below. The process is repeated until the supply selection set is adequate.

Example of Final Recreation Adequacy Report

Demand, Supply & Adequacy Report

Project Location Master Plan: SILVER SPRING CBD



Proposed Residential Project - Units by Type and their Demand Points

Code	Housing Type	Quantity	Tots	Children	Teens	Young Adults	Adults	Seniors
TH	Townhouses	20	2.8	4.4	3.2	10.6	14.6	2.2
SFD	Single-Family Detached	0	0	0	0	0	0	0
Mid-Rise	Multiple-Family, 4 - Stories	0	0	0	0	0	0	0
Hi-Rise	Multiple-Family, 5 + Stories	100	10	7	3	73	56	25
Total Demand Points		120	12.8	11.4	6.2	83.6	70.6	27.2

Existing Offsite Park Facilities and Supply Points

Park Facility		Tots	Children	Teens	Young Adults	Adults	Seniors
Basketball Court	1	3	10	15	12	6	2.5
Handball Court	1	0	1.5	10	20	20	2
Trail System	1	1.28	2.28	0.93	12.54	10.59	2.72
Skate Park	1	0	6	10	12	7	1
Tennis Court	2	0	1.5	10	16	12	3
Playground	4	0	27	9	6	9	6
Total Offsite Supply Points		4.28	48.28	54.93	78.54	64.59	17.22
35% of Total Offsite Supply		1.5	16.9	19.23	27.49	22.61	6.03
Max Allowed (35% of Total Demand)		4.48	3.99	2.17	29.26	24.71	9.52

Actual Credit for Off Site Supply

		1.5	3.99	2.17	27.49	22.61	6.03
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Proposed Onsite Recreation Facilities and their Supply Points

Recreation Facility	% Bonus Points	Tots	Children	Teens	Young Adults	Adults	Seniors
Dog Park	10.00%	0.00	2.2	7.7	8.8	8.8	8.8
Indoor Community Space		1.28	1.71	1.86	25.08	21.18	10.88
Performance Space Indoor		4	8	8	9	10	9
Yoga Room		0	2	4	9	9	9
Indoor Fitness Room		0	1.14	0.62	20.9	14.12	4.08
Interior Courtyard, Garden or Lawn		2	3	4	7	7	5
Pocket Green		3	5	5	8	8	6
Picnic / Seating Areas		1	1	1.5	3	3	2
Interactive Outdoor Music and Art		5	5	3	2	4	4
Grilling Area		0	0	2	6	6	5
Total Onsite Supply Points			16.28	29.05	37.68	98.78	91.1

Results: Demand, Supply & Adequacy

Age Group	Total Demand Points	Off Site Supply	On Site Supply	Total Supply Points	Adequacy
Tots	12.8	1.5	16.28	17.78	Adequate
Children	11.4	3.99	29.05	33.04	Adequate
Teens	6.2	2.17	37.68	39.85	Adequate
Young Adults	83.6	27.49	98.78	126.27	Adequate
Adults	70.6	22.61	91.1	113.71	Adequate
Seniors	27.2	6.03	63.76	69.79	Adequate

Chapter 5:

Flexibility: Custom Recreation Facilities

5.1 Custom Facility Tool

Work sessions with developers, builders and designers for the 2017 Recreation Guidelines made clear that the existing system, in place since 1992, was viewed favorably because it was straightforward and predictable. Analysis from the Montgomery County Department of Parks, suggestions from the development community and Sports and Fitness Industry Association National Recreation Survey data helped to identify facilities to add to the 1992 list of recreation options based on newer trends in development. While the development community found the system's predictability desirable, the professionals count the lack of flexibility as its biggest drawback.

In response to the need for flexibility, the Custom Facility Tool has been added to the 2017 Recreation Guidelines. This tool gives an applicant the ability to propose a custom facility, a recreation amenity located with a stormwater management facility or unique recreational amenity by way of a short questionnaire supplemental to the standard recreational facility list.

5.1.1 Custom Facilities Evaluation Method

The Custom Facility Web Tool Application requires a justification statement along with a detailed facility description. The web tool presents two sets of multiple-choice questions that are arranged in stepped sequence. See Custom Facilities Evaluation Sets, page 26.

The first set determines the base value level of the recreation supply credit. Responses are required and the applicant's answers establish the basic, threshold characteristics of the proposed facility: size, materials, lighting. The web tool assigns basic recreation supply points corresponding to the applicant's answers.

The second set modifies or amends the base value established by the second set of questions. Responses to these questions are optional and these address more specialized recreation facility characteristics pertaining to age groups and activity level: tots, teens, aerobic level. Successful answers to the third tier questions result in additional or "bonus" recreation supply points added to the points established for the first tier responses.

The sequence of questions set thresholds for the additive values per age group for the proposed amenity. This "stacking" and sequential, additive process of the three question sets allows further supply points to be credited relative to the characteristics of the proposed facility.

With the custom facilities application, threshold values for the proposed custom facility are identified and may be fully reviewed under the regulatory review application, with subsequent review and approval by the Planning Board.

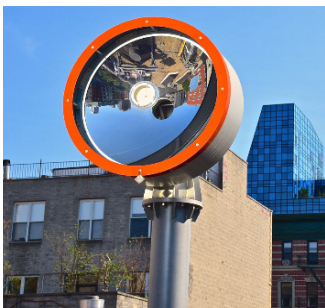
See Appendix, Section 10.4, for supply value calibration using the Custom Facility Web Tool Application.

5.1.2 Custom Facilities Application

The application form for a custom recreation facility proposal is available on the recreation web site and may be uploaded as part of the development application. As indicated above, the Custom Facility Tool allows the user to export both the application form and the results of the questionnaire with an interpretation of the threshold supply points. This report, along with the standard recreation facilities solution, may be saved or printed for inclusion in a development project application. The application form may be found in the Appendix.

5.1.3 Planning Board Findings

The Montgomery County Zoning Ordinance, under Section 7.3.4.E.2(f)(g) requires that the Planning Board make a finding that a proposed Custom Recreation Facility is accurately represented by description, drawings and specifications, is suitable to its location, as well as adequate, safe and efficient. The Planning Board is authorized to approve or deny a proposed recreational facility. If approved, the Custom Facility type may be added to the standard recreation facility list.



Example of a Custom Recreation Facility (above): Illustration of proposed development of the Delancey Underground Public Park, also known as the New York City "Lowline."

The one-acre underground park will be illuminated by remote skylights using newly refined solar-tracking technology. The park is expected to open in 2021.

Left: Positional solar collector (Matt Chaban)

Source: thelowline.org.

5.2 Custom Facilities Evaluation

5.2.1 Custom Recreation Facilities Proposal -- Evaluation Levels		
Descriptive Information	1. Name of Project and Recreation Facility	
	2. Description of Recreation Facility	
	3. Intended for Public Access?	
	A.	Yes
	B.	No
	4. Is Facility Co-located with a Stormwater Management Facility?	
	A.	Yes
	B.	No
Base Value Determination Questions	5. What is the size of this facility?	
	A.	Less than 250 square feet
	B.	250 - 499 square feet
	C.	500 - 1,999 square feet
	D.	2,000 - 19,999 square feet
	E.	Larger than 20,000 square feet
	6. Which choice best describes this facility?	
	A.	Indoors
	B.	Natural - Untreated
	C.	Outdoors - Hardscaped (paved)
	D.	Outdoors - Landscaped
	7. Which choice best describes the lighting for this facility?	
	A.	Facility has lighting for users and spectators
	B.	Facility has outdoor accent lighting only
	C.	Facility has no lighting
	8. Does this facility provide recreational opportunity for tots with:	
A.	Minimal level of supervision	
B.	Moderate level of supervision	
C.	High level of supervision	
Base Value Modifier Questions	9. Does this facility encourage physical or aerobic exercise?	
	A.	Yes
	B.	No
	10. Is this facility suitable for teens?	
	A.	Yes
	B.	No

Chapter 6:

Off-Site Recreation



6.1 Using Existing Off-Site Public Recreation Facilities

The network of parks and trails systems owned and operated by the Montgomery County Department of Parks provides recreation opportunities throughout the County. These public facilities serve a wide variety of neighborhoods and residential developments.

The updated Recreation Guidelines seek to encourage wider access to recreational opportunities by relating individual on-site development to broader, connected pedestrian systems and bikeways. The guidelines seek to enhance the opportunity to utilize existing off-site public recreation facilities by ensuring that safe, active pedestrian connections are provided to these public facilities. The Web Tool Geolocation function itemizes the features of nearby recreation facilities and their applicable values for recreation supply credit.

6.1.1 Existing Off-Site Public Recreation Facilities: Proximity Limits

Publicly-owned recreation facilities located in residential zones within a safe walking distance from an accessible boundary of the subject site may be considered for recreation supply credit under these conditions:

1. The existing public facility must be so located as to provide safe pedestrian access to the facility from the proposed project's accessible site boundary and within a 10-minute walk. Safe pedestrian access is provided by neighborhood roads and/or roads that have sidewalks in addition to path and trail systems.
2. A Facility Access Plan must be submitted that demonstrates the 10-minute safe walking distance from the proposed project's street access or other public passageway. The Planning Board will consider three criteria when evaluating the proposed access plan: visibility, traffic controls and pedestrian conditions.

6.1.2 Demonstrating Safe Pedestrian Access to Off-Site Public Recreation Facilities

1. The Recreation Guidelines Web Tool automatically provides information to meet the above listed requirements. Upon determination of the project site location, the tool identifies the area's existing off-site public recreation facilities within a 10-minute walk, itemizes the applicable off-site recreation facility types and lists the supply values of those facilities.
2. The web tool also provides a locational walk shed analysis that identifies the locations of public recreation facilities that meet the requirements of the Facility Access Plan. The tool maps safe pedestrian routes from the project site to the facilities within the 10-minute walking distance. This graphical tool provides the basis for the Facility Access Plan for the Planning Board's finding that the pedestrian access is safe, adequate and efficient.
3. If a safe pedestrian route is unavailable or inaccessible, the applicant may

propose and make improvements to create such a route in order to utilize off-site recreation supply credit, subject to regulatory plan review, county agencies' review and Planning Board approval.

6.1.3 Supply Credit for Existing Off-Site Public Recreation Facilities in Residential Zones

1. The credit for each off-site facility must not exceed **35 percent** of its supply value for each population category.
2. The total credit for all off-site facilities must not exceed **35 percent** of the required demand points for each population category.
3. The values for those off-site facilities may yield a maximum of **35 percent** of the full facilities values (listed on pages 16-17).

6.2 Providing New Off-Site Recreation Facilities in Optional Method Zones

Recreation amenities for proposed development applications located in the optional method zones (Commercial-Residential, Commercial-Residential-Neighborhood, Commercial-Residential-Town, Life Sciences Center zones) may be located off-site, in coordination with the provision of required Public Open Space and Recreation (**Section 6.3 of the Montgomery County Zoning Ordinance**) if the facilities satisfy the majority of demand levels for applicable age groups.

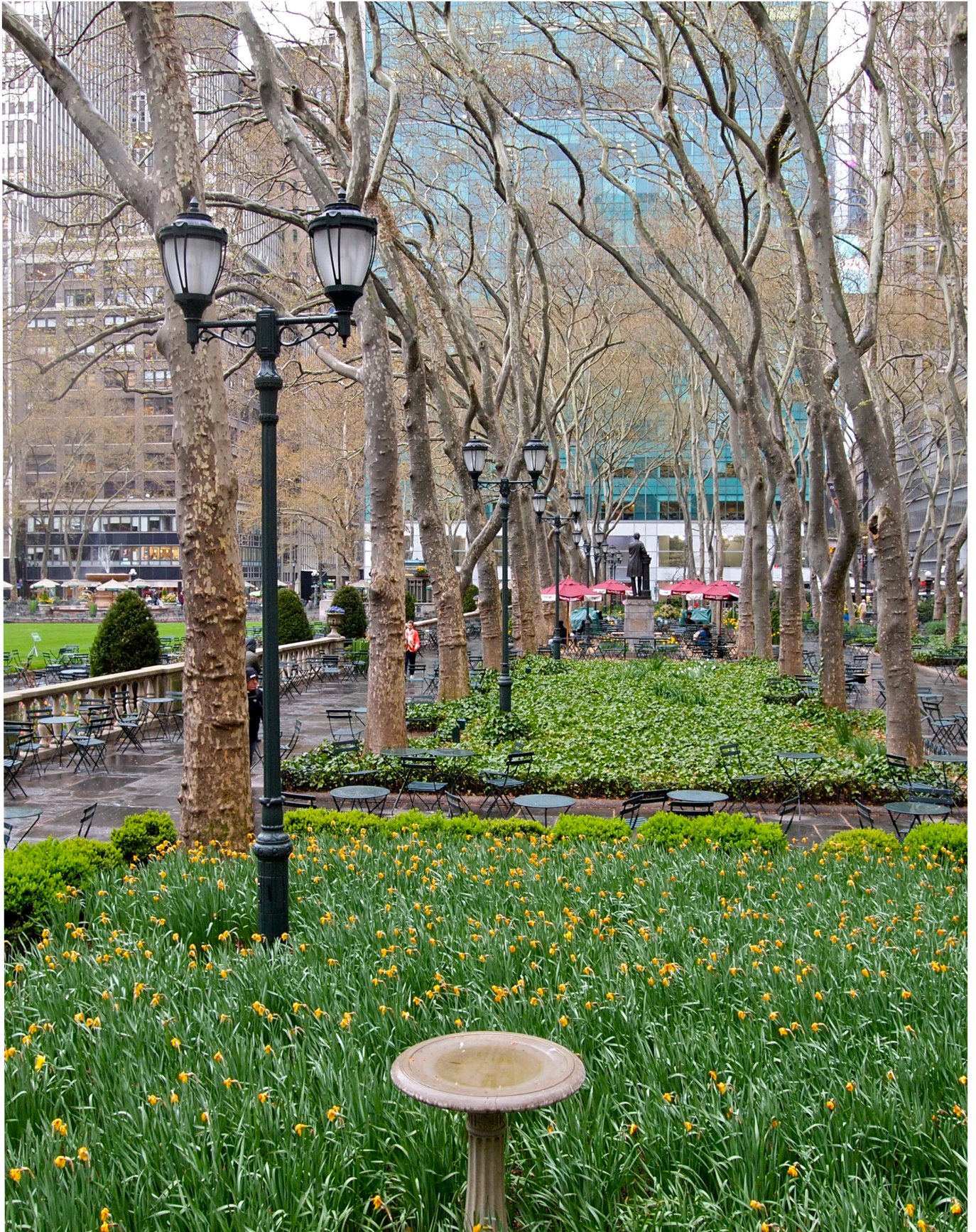
Off-site recreation facilities within required public open space in the optional method zones will be reviewed in two classifications:

1. Those development plans proposing a Montgomery Parks public facility as an Optional Method Zone Amenity and subject to the proposed Adequate Public Facilities (APF) Fee for public parks or facilities: The proposed amenity is eligible for CR credit and recreation supply credit; recreation credit is applied to the facility for the public open space and recreational facilities constructed and provided within the public open space if a Parks APF fee is paid.
2. Those development plans proposing a public facility as a Optional Method Zone Amenity within public open space that is not subject to the proposed Adequate Public Facilities (APF) Fee. Recreation supply credit for this type of recreation plan is offered for the recreation furnishings, equipment or facilities accommodated within the public open space. Supply credit is not applied for the open space itself.

Off-site recreational amenities in optional method zones are reviewed under the 2017 Recreation Guidelines as a:

- A. Major Public Facility
- B. Community Facility
- C. Custom Recreation Facility.

Enhanced recreation supply credit will be applicable to those off-site recreation facilities that fulfill a master plan, sector plan or PROS Plan recommendation.





Chapter 7:

Thresholds, Bonuses, Exemptions, Public Access



7.1 Thresholds

7.1.1 Project Density

Residential development with more than 19 residential units must provide adequate recreational amenities under the **Section 6.3.9 of the Montgomery County Zoning Ordinance**. Developments of fewer than 20 residential units should provide a conveniently located common area (a homeowners association public area) with safe pedestrian and bicycle linkages.

7.1.2 Lot Size Threshold

Developments where all lot sizes are greater than one acre, as approved by the Planning Board, are not required to provide recreational facilities.

7.2 Bonuses

7.2.1 Master Plan Recommended Facilities

Recreation facilities that fulfill a master plan, sector plan or PROS Plan recommendation may earn 20 percent bonus (10 percent for a master plan facility and 10 percent for its public access) to supply points, subject to Planning Board review and approval. The Planning Board is authorized to increase the bonus percentage in proportion to the proposed facility's value to the community.

7.2.2 Public Accessibility

Providing public access to a recreational facility within the boundaries of a residential development is not required. However, development under the optional method zones (CR, CRT, CRN, LSC) requires public open space and proportional public amenities. In these cases, the design of the development may include recreational facilities such as a trail connection that qualifies as a public amenity if the developer or owner (or HOA) agrees to provide access to the general public.

NOTE: The Annotated Code of Maryland, Natural Resources Art., § 5-1104 provides that, except due to willful or malicious conduct by the owner, an owner of land who allows the public use of its property for any recreational or educational purpose without charge, neither assumes responsibility for or incurs liability for injury to the person or property as a result of such use.

7.2.3 Integrated Stormwater Management Design

A development may be allowed to implement dual use of a stormwater facility for recreational purposes if it accommodates a significant, full recreation facility for active recreation. Examples include a dog park, a paved, attractively sited walking/running path or a bicycle track. Passive recreation may be provided along with the primary active recreation activity. Allowance of recreation sited with a stormwater management facility is considered a form of bonus.

A recreation facility that is part of integrated stormwater management design must be submitted as a Custom Recreation Facility at the time of subdivision application

with statement of justification followed by staff review and Planning Board review and approval. The process requires pre-application meetings with Planning Department staff, Department of Permitting Services and possibly the Department of Natural Resources. The Planning Board must make a finding for the facility as adequate, safe and efficient.

7.2.4 Age-Group Category Exemptions



Age-category exemptions may be issued subject to Planning Board approval. The exemption application, accessible on the Recreation Guidelines web site, must be completed at the time of regulatory plan application.

For such an approval, the following criteria must be satisfied:

1. The total number of recreation demand points for all age groups must be provided, with supply points shifted to the other age groups.
2. The recreational needs of the neighborhood must be considered, i.e., the exemption should not contribute to increasing a current neighborhood recreation need. The applicable master plan, sector plan or PROS Plan should be consulted to determine neighborhood needs.
3. The application must demonstrate the necessity of the age group recreation demand shifts (see 6.3.2 below).
4. If an exemption is sought for two age group categories, the recreation facilities proposed must constitute a “very substantial” publicly accessible facility as determined by the Planning Board (example: dog park).

7.2.5 Age Category Exemption Application

The application for exemption must include:

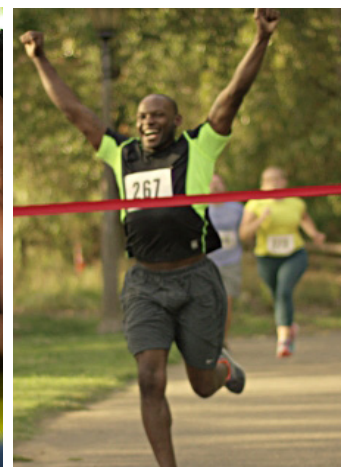
- Statement of justification.
- Detailed analysis of residential living unit-type distribution.
- Location-based demographic marketing study supporting the age-category exemption and recreation recommendations for the remaining age groups.

7.2.6 Planning Board Findings

The Planning Board is authorized to approve or deny an exemption application. If an applicant applies for an age-group exemption. The Planning Board makes the determination to grant or deny the exemption, depending on the type of project, site location and geographic recreational needs within the context of the neighborhood.



*Millennial Recreation,
Anywhere*



Clockwise from top left:
Tai Chi at Coney Island; NY
Toddler play group, Brooklyn, NY
Family on walking trail, Vancouver, Canada
Play on the National Mall, Washington, DC;
Race finish, California
Yoga studio, Vancouver, Canada



Woodlawn Barn historic restoration, Sandy Spring, MD

Chapter 8:

Facilities Guidelines



Facility guidelines provide a specification sheet, general in nature, for each of the recreation facilities listed in the Recreation Facilities and Supply Value Table (pages 16-17).

The guidelines include information such as:

- Definition of the facility.
- Facility size.
- Area required.
- Most suitable location.
- Design criteria.
- Possible activities that may be accommodated by the facility.
- Accessory furnishings, plantings or fixtures required.
- Elements of the facility.
- Screening or landscaping required.
- Recreation supply values.
- Photographs of facilities as suggested examples.
- All facilities must comply with the ADA Amendments Act of 2008.
- All facilities must comply with applicable federal, state and local regulations.
- The Annotated Code of Maryland, Natural Resources, § 5-1104 provides that except due to willful or malicious conduct by the owner, an owner of land who, without charge to persons to use its property for any recreational or educational purpose neither assumes responsibility for or incurs liability as a result of any injury to the person or property by allowing entry onto and use of the property.



Outdoor Amphitheater, Footscray Community Arts Centre, Victoria, Australia

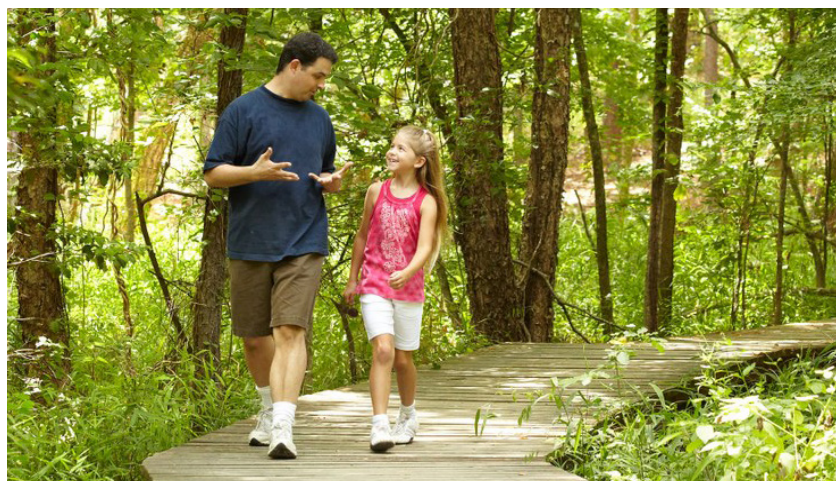


1. Pedestrian Connection System or Trail System

Definition	A pedestrian system within the project site, such as a walking path side-walk or hiking trail, that provides access to other public facilities, recreation opportunity or activity within natural areas.
Size	Width will vary depending on site conditions. Minimum length requirement: 1/4 mile. Specifications should follow M-NCPPC standards for shared use trails, pedestrian connections. Safety lighting and call boxes should be included where appropriate. Materials may vary: boardwalk, paved, woodchip, natural surface, sensory surface, gravel.
Possible Activities	Walking, hiking, nature study, links between nature areas, or public open spaces, public facilities, connections to natural areas, community gardens.
Location	On private property as part of residential development; or on public property as part of the regional trail system. May be located within Category I Conservation Easements.
Design Criteria	<p>Connections should provide adequate access to public facilities, public open space, other recreation facilities or natural areas, such as woodland, wetland, ponds and creeks. Shared use paths may be included. For Natural areas: Resting areas should be provided where appropriate.</p> <p>Must conform to the Maryland-National Capital Park and Planning Commission Environmental Guidelines and be designed to maximize protection and function of natural features. For nature trails, pervious surfaces are encouraged. The trail should be designed to minimize erosion.</p>
Components Requirements	Benches, picnic tables, watering stations, interpretive signage, call boxes. Design and construction of pedestrian connections, extensions or trails must conform to the requirements of ADA Amendments Act of 2008.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Pedestrian Trail System	0.10 x D1	0.20 x D2	0.15 x D3	0.15 x D4	0.15 x D5	0.10 x D6



Nature trail, Texas Park and Wildlife

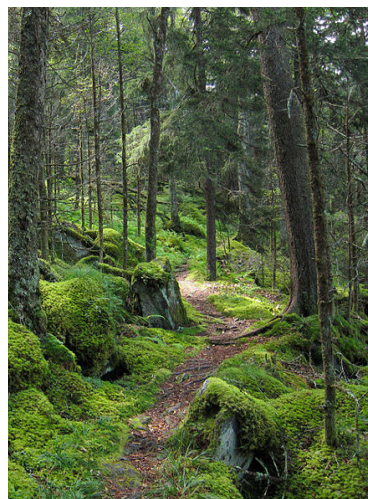


Pedestrian Connection and Trail Examples

*Right: Washington-Old Dominion Trail,
Fairfax, VA
The Regional Park trail
accommodates walking, biking,
inline skating, horseback riding,
cross country skiing
and wheelchair access.*



*Left: Natural Trail for Hiking,
Baxter Creek, Great Smoky Mountains
National Park, Gatlinburg, TN*



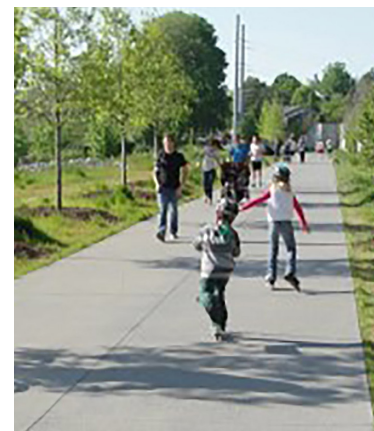
*Right:
Sensory trail for barefoot walking,
Engelberg, Switzerland*



*Left: Teen track event, asphalt path,
Folger Park, Washington, DC*



*Right: Beltline-Eastside multi-use trail,
Atlanta, GA*



*Below: All-weather rock trail,
Creve Coeur, MO*





2. Heart Smart Trail

Definition	A hard-surfaced, level path with markers so walkers can keep track of the distance traveled.
Size	Minimum length: one mile minimum; 6 feet wide with 2 feet lateral clearance and 10 feet vertical clearance, minimum.
Possible Activities	Walking, hiking, exercise
Location	Flat to rolling surface on private property as part of residential development; or on public property as part of the public sidewalk system.
Design Criteria	<p>Provide signage at start to include a map of the trail and brochures describing the health benefits of the trail</p> <p>Include trail markers every 1/10 of a mile, with call boxes.</p> <p>Paths should provide adequate access to natural features, such as woodland, wetland, ponds and creeks, if feasible.</p> <p>Resting areas should be provided where appropriate.</p> <p>Must conform to the Maryland-National Capital Park and Planning Commission's Environmental Guidelines and be designed to maximize protection and function of natural features.</p> <p>Design and construction of pedestrian connections, extensions or trails must conform to the requirements of ADA Amendments Act of 2008.</p> <p>Pervious surfaces are encouraged. The trail should be designed to minimize erosion.</p>
Components	Benches, picnic tables, watering stations, interpretive signage..

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Heart Smart Trail	0	9	10	12	12	12



Heart smart trail, Abington Art Center Sculpture Garden, Abington, PA



3. Fitness Trail

Definition	An outdoor exercise course with fitness stations installed along a walking or a jogging trail.
Size	Length will vary depending on number of stations.
Possible Activities	Outdoor exercise
Location	On private property as part of residential development; or on public property as part of a regional trail system, the public park system or other urban settings.
Design Criteria	<p>Level surfaces are preferable to allow participation of the elderly and accommodate cyclists, joggers, skaters and walkers.</p> <p>Trail should include a multi-station fitness system to provide a balanced program for total fitness.</p> <p>Stations can consist of natural features (climbable rocks, trees) or manufactured products.</p> <p>Should include instructional signs and be designed for all ages and levels of physical fitness. Provide call boxes where appropriate.</p>
Components	Watering stations, instructional signage,

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Fitness Trail	0	8	12	14	14	7



*Fitness trail station
City of Ocala, FL*



4. Pedestrian Bridge (Residential Scale)

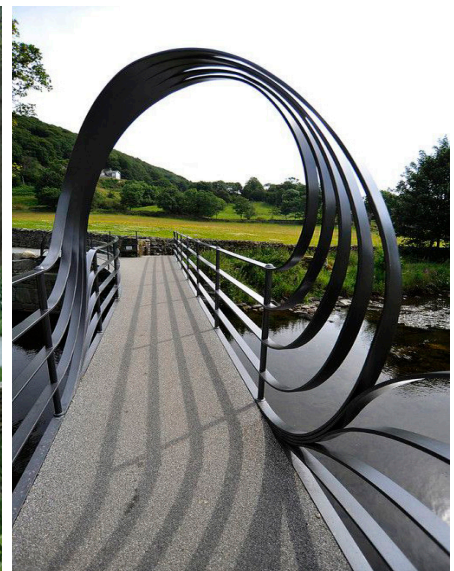
Definition	A footbridge (also called a pedestrian bridge, pedestrian overpass or pedestrian overcrossing) designed for pedestrians and, in some cases cyclists, animal traffic and horse riders instead of vehicular traffic.
Size	Length will vary depending on need; footbridge width should provide 6 feet clear side-to-side at cross section.
Possible Activities	Walking, hiking, cycling.
Location	On private property as part of residential development, or public property fitting a regional trail system, the public park system or other urban settings.
Design Criteria	<p>Footbridges should complement the landscape or reference the context and can be used decoratively to visually link two distinct areas or to signal a transition between areas.</p> <p>Construction: timber, concrete or steel of custom or prefabricated materials</p> <p>Residential scale design accommodates a short distance and includes handrails with side fencing.</p> <p>Design and construction of pedestrian connections, extensions or trails must conform to the requirements of ADA Amendments Act of 2008.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Pedestrian Bridge	5	10	12	12	12	12



*Gibbs sunburst wooden bridge, Atlanta, GA
Atlanta Decking Company*



*Stavely footbridge, Cumbria, England
Chris Brummel, artist*



5. Bikeways

Definition	A system consisting of bike routes that provides safe bicycle access and recreational opportunities for the community.
Size	Varies per facility type. Refer to the Montgomery <i>Countywide Bikeways Functional Master Plan</i> for specific dimensions.
Possible Activities	Bike riding
Location	On private property as part of residential development or on public property within the public right-of-way.
Design Criteria	<p>Bike routes should provide safe linkages to neighborhood destinations, such as public transportation and public facilities, and access to the countywide bike network.</p> <p>Bikeways should be provided through natural areas wherever possible.</p> <p>Resting areas and bike repair stations should be provided.</p> <p>Must comply with the Bicycle Master Plan.</p>
Components	Benches, bicycle support stations, bicycle repair rooms, bicycle storage areas.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Bikeways	0.05 x D1	0.10 x D2	0.15 x D3	0.15 x D4	0.15 x D5	0.10 x D6



Protected bicycle lane,
Washington DC

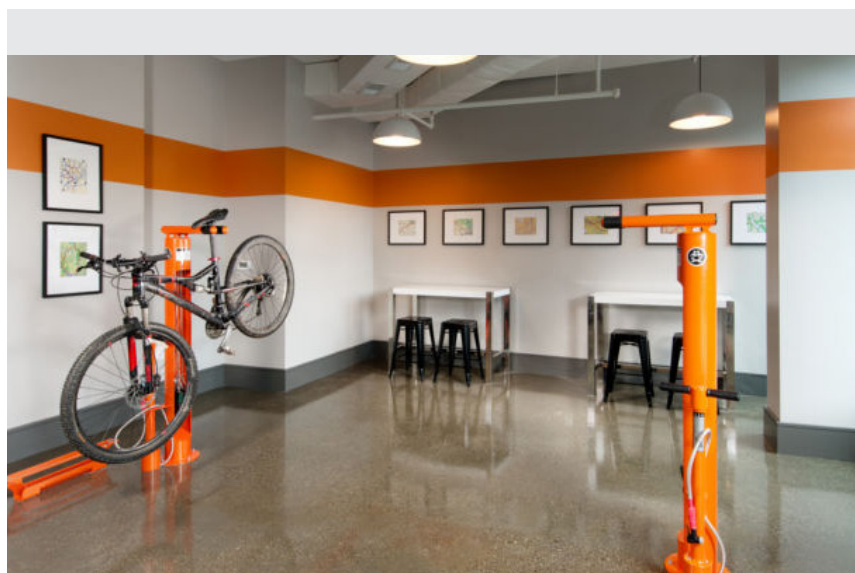


6. Bicycle Repair Room (Indoor)

Definition	An indoor room equipped for bicycle repair.
Size	300 square feet minimum.
Possible Activities	Bicycle repair
Location	Integrated into residential development, quick outdoor access, adjacent to bicycle storage areas.
Design Criteria	Provide repair areas for at least two bicycles at any one time. Include basic tools needed for bike repair.
Components	Repair stands, sink

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Bicycle Repair Room	0	9	10	12	10	5



*Resident bike repair room,
Halstead Square Apartments,
Vienna, VA*



7. Bicycle Parking Garage

Definition	A secure indoor parking facility.
Size	Approximately 25 square feet per bicycle. Overall facility size will vary depending on number of bicycles and type of storage.
Possible Activities	Bicycle storage.
Location	Adjacent to vehicular garage or pedestrian building entrance.
Design Criteria	<p>Consider providing a variety of rack types (floor, wall mounted), or bicycle lockers.</p> <p>Consider providing a bicycle washing area adjacent to the parking area (stall with water supply access and drainage).</p>
Components	Bicycle racks; wall bicycle racks; bicycle lockers

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Bicycle Parking Garage	0	7	14	14	12	5



Bicycle storage area, Facebook Campus, Menlo Park, CA



8. Dog Park

Definition	Fenced area where dogs can run off-leash while supervised.
Size	3 acres or more preferred; 1 acre minimum
Location	Accessible location within central business district area; integrated into local public park; Integrated into residential development.
Design Criteria	<p>Fence should be high enough to prevent dogs from jumping over.</p> <p>Include a double gated entrance to separate incoming and outgoing, large and small dogs.</p> <p>Include separate play areas for different sizes of dogs.</p> <p>Provide a variety of activity types: jumping, running, agility practice for dogs.</p> <p>Include benches and seating areas for owners with clear view of play area and clear visibility of the animals.. Provide watering stations for dogs and owners. Include benches and seating areas for owners with clear view of play area.</p> <p>Include shaded areas (gazebos, canvas shade structures or shade trees).</p> <p>Provide dry and wet stations for dog play.</p>
Elements	Fencing, Benches, picnic tables, movable seating, watering stations, shade structures
Screening/Landscaping	Perimeter landscape for screening if space is available; Tree areas for shading.

Supply Values

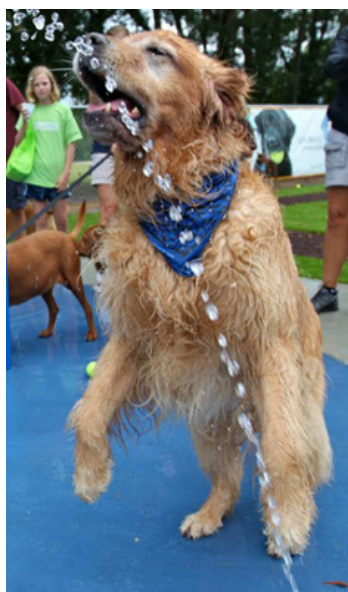
	Tots	Children	Teens	Young Adults	Adults	Seniors
Dog Run	0	2	3	5	6	6



*Beau's Dream Dog Park at Buchanan Park,
Lancaster, PA*



Dog Park Components



*Clockwise from top left:
Double gated dog run entrance; shade sail
installation; dog play equipment; gazebo with
picnic table and benches; water play area.*



9. Dog Run

Definition	Fenced area where dogs can run off-leash while supervised
Size	5,000 square feet, with adequate linear area for running and exercise.
Location	Accessible location within central business district area; integrated into local public park; Integrated into residential development as a roof-top facility or indoor dog room. .
Design Criteria	<p>Fence should be high enough to prevent dogs from jumping over.</p> <p>Include a double gated entrance to separate incoming and outgoing, large and small dogs. Provide watering stations for dogs and owners.</p> <p>Include separate play areas for different sizes of dogs.</p> <p>Provide a variety of activity types: jumping, running, agility practice for dogs.</p> <p>Include benches and seating areas for owners with clear view of play area and clear visibility of the animals..</p> <p>Include shaded areas (gazebos, canvas shade structures or shade trees).</p> <p>Provide dry and wet stations for dog play.</p>
Elements	Fencing, benches, picnic tables, movable seating, watering stations, shade structures
Screening/Landscaping	Perimeter landscape for screening if space is available; Tree areas for shading.

Supply Values

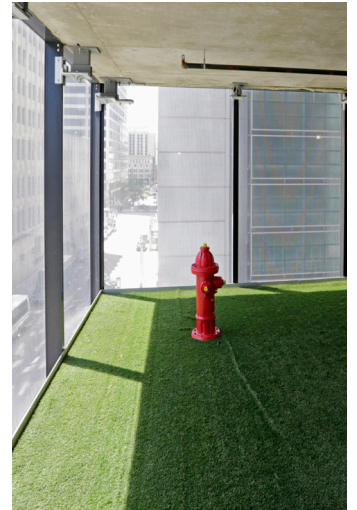
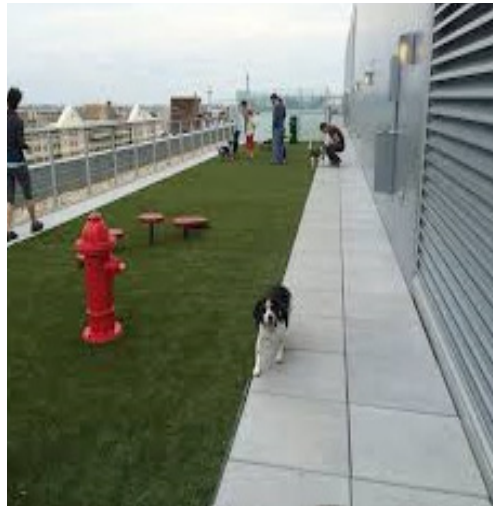
	Tots	Children	Teens	Young Adults	Adults	Seniors
Dog Run	0	2	4	5	6	6

Dog run provided for the AVA Dobro, Brooklyn, NY





Dog Run Examples



Clockwise from top left:

*Roof-top dog run,
City Market at O Street,
Washington, DC*

Indoor dog run, Optima Center, Chicago, IL

Public dog run, Yards Park, Washington, DC

Private outdoor dog run, Minneapolis, MN

*Note components: water supply, variety of
ground materials, seating, shade.*



10. Dog Cleaning Station

Definition	An indoor self-service dog washing or grooming facility.
Size	Will vary depending on amenities included.
Possible Activities	Pet washing/grooming
Location	Integrated into residential development.
Design Criteria	<p>Provide multipurpose wash tubs to accommodate a wider range of breeds.</p> <p>Consider elevated tubs with attachments for easy dog access.</p> <p>Consider finishes resistant to splashing and moisture.</p> <p>Provide hand-held water sprays.</p> <p>May include long-hosed dryers, feeding, drinking, and play equipment, depending on amenity size.</p>
Components	Watering stations, instructional signage.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Dog Cleaning Station	0	0	2	3	3	3



Example of a dog washing facility in a multifamily complex, Greenville, SC



11. Indoor Community Space

Definition	A multipurpose facility to serve the recreational needs of the community.
Size	1,200 square feet per 200 dwelling units minimum; Additional 500 square feet per 100 dwelling unit increments.
Possible Activities	Community meetings (internal or external); club meetings; hobby activities, social and community groups and parties.
Location	Integrated to residential development.
Design Criteria	May include restrooms, a small office and a kitchen with pantry and catering space. Provide adjoining parking for deliveries, event hosts and accessible spaces.
Components	<p>Benches, ample varied seating types, such as upholstered seating, group seating, audience seating. Stage or focus area for performances and speaking events.</p> <p>Provide adjustable acoustical treatment to accommodate a variety of event types and capacities.</p> <p>Provide a complement of lighting to accommodate a variety of event types and capacities.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Community Space	0.10 x D1	0.15 x D2	0.30 x D3	0.30 x D4	0.30 x D5	0.40 x D6



Example of a community room that includes a stage area, natural illumination and removable seating, Bellevue, WA.



12. Indoor Performance Space

Definition	Indoor facility for live performances.
Size	Minimum 1,400 square feet.
Possible Activities	Small performance viewing. Informal presentations and social gatherings.
Location	Integrated to residential development.
Design Criteria	<p>Designed to allow for multiple arrangements, to view small performances as well as informal or spontaneous presentations.</p> <p>Seating should be movable and easily stored to permit as wide a variety of configurations as possible within the space. Provide a single fixed stage at the front of the room, with a setup similar to that of a black box theater.</p> <p>Provide adjustable acoustical treatment to accommodate a wide variety of performance types and audiences, including stage sound absorption and reflection; adjustable variety of lighting types for performance flexibility.</p>
Elements	Audio-visual equipment; adjustable acoustic treatment, adjustable lighting; movable seating, public restrooms, accessible without stairs, elevator lobby and house, patron restrooms, backstage restroom, backstage, stage.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Performance Space	4	8	8	9	10	9



*Black box theater, Kranzberg Arts Center,
St. Louis, MO*



13. Indoor Gymnasium or Exercise Room

Definition	A small gymnasium sized to accommodate the proposed community.
Size	Minimum 50 by 84 feet to accommodate the equivalent of a high school-size basketball court.
Possible Activities	Exercise classes; basketball; volleyball; aerobics; miscellaneous fitness activities.
Location	Integrated to residential development.
Design Criteria	<p>Provide hard surface resilient flooring.</p> <p>To accommodate basketball, a minimum 16-foot ceiling height is required.</p> <p>Include sound baffles or other measures to mitigate sound transmission to other spaces. Provide additional floor area for team/spectator space.</p> <p>Provide inclusionary opportunities and facilities. .</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Exercise Room	0.10 x D1	0.10 x D2	0.30 x D3	0.30 x D4	0.30 x D5	0.40 x D6



Indoor exercise room includes a basketball area and a separate fitness area (behind glass doors), Dallas, TX



14. Adaptive Sensory Gymnasium

Definition	A small gymnasium organized for active sensory play providing a structured environment to assist development of sensory, communication, gross and fine motor skills. A sensory gym includes sensory equipment designed to provide proprioceptive and vestibular sensory input.
Size	Minimum size of 1,650 square feet, 2,400 square feet preferable, clear of structural columns if possible.
Possible Activities	Equipment includes suspended swings, trampolines, balls, climbing structures, crash pads, self-cleaning sanitary ball pit and safe landing places.
Location	Accessible location for residents and visitors, interior and exterior access..
Design Criteria	<p>Provide variety of interconnected spaces with specific programming for those individuals with hypo-and hyper sensitivity, i.e., a larger gym space, small pocket sensory spaces, very tight space, safe play space and stairs.</p> <p>To accommodate stairs and vestibular swings, a minimum 12-16-foot ceiling height is required.</p> <p>Include sound baffles or other measures to mitigate sound transmission to other spaces.</p> <p>Provide seating area for caretakers and visitors.</p>

References:

Lebedowicz, Chang. Academy of Neurosciences for Architecture, *Architecture for Sensory Integration*: (2016) pages 100-101.

Leestma, David: *Designing for the Spectrum*. Thesis, University of Maryland (2015).

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Adaptive Sensory Gym	9	9	7	7	5	5

*Sensory calming space, Ramat Gan,
Tel Aviv, Israel*





Adaptive Sensory Gymnasium Examples

Left: Indoor vestibular swings
Right: Foam pit for jumping,
Sensory Zone Gym, Newtown, PA



Sensory play room,
Leno County Public School,
Tallahassee, FL



Left: Magnetic puzzle wall,
Wallforms, Inc.
Right: Self-Cleaning ball pit,
Columbus, OH





15. Yoga Room

Definition	Indoor room for yoga and meditation.
Size	Approximately 21 square feet per yoga practitioner.
Possible Activities	Yoga classes; meditation sessions.
Location	Integrated to residential development.
Design Criteria	<p>Situated to eliminate external distractions and/or interruptions. Irregular room shapes should be avoided.</p> <p>Quality flooring must be provided, preferably natural wood. Resilient flooring is acceptable.</p> <p>Natural lighting is preferred. Ambient lighting is preferred.</p> <p>Provide a room height of at least 10 feet.</p>
Components	Yoga mats, changing room, water station.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Yoga Room	0	2	4	9	9	9



*Blue Forest Yoga Studio,
Cobham, United Kingdom.*



16. Indoor Racquetball/Squash

Definition	An indoor court for two players.
Size	Court: Racquetball: 20 by 40 feet, Squash: 25 by 45 feet Front Wall: Racquetball: 20 feet high, Squash: 16 feet high Rear Wall: Racquetball: 12 feet high min; Squash 6.5 feet min
Possible Activities	Racquetball, squash.
Location	Integrated to residential development.
Design Criteria	Provide court markings for both sports. Ensure all surfaces do not deflect the rebound of the ball in any way.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Racquetball/ Squash Court	0	1.5	10	20	20	2



Indoor racquetball/squash court with a glass enclosure.



17. Futsal Court

Definition	Indoor court to accommodate a modified form of small-sided football.
Size	Court Length: 82 feet minimum, 137.8 feet maximum Court Width: 49.2 feet minimum, 82 feet maximum
Possible Activities	Youth futsal.
Location	Integrated into residential or mixed-use development.
Design Criteria	Ensure adequate run-off space is provided, if the court is enclosed by walls and/or fences. Run-off area flooring should match court flooring material. Quality flooring must be provided. Resilient flooring is acceptable. Avoiding potential for abrasion and impact injuries through falling should be an important consideration when selecting a surface type. Provide inclusionary opportunities: equipment, seating, visual and physical access.
Components	Spectator seating, waiting areas, changing areas.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Futsal Court	0	7	6	7	5	0



*Swindon Futsal Arena,
Swindon, United Kingdom*



18. Indoor Fitness Room

Definition	An indoor exercise facility.
Size	Minimum 8 square feet per dwelling unit. Size will vary depending on number and type of fitness stations, and number of dwelling units being served.
Possible Activities	Individual, self-guided or supervised fitness.
Location	Integrated to residential development.
Design Criteria	<p>May include areas for cardiovascular equipment, free and pre-loaded weights, electorized weights, and stretching/warm-up/cool-down areas.</p> <p>Provide as high ceilings as feasible and ample circulation space.</p> <p>Ensure good indoor air quality and natural light.</p> <p>Provide impact flooring for fall attenuation and appropriate cushioning for bone and joint health.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Fitness Room	0.00xD1	0.10xD2	0.10xD3	0.25xD4	0.20xD5	0.15xD6



Fitness center, Flats 130 Apartments, Washington, DC

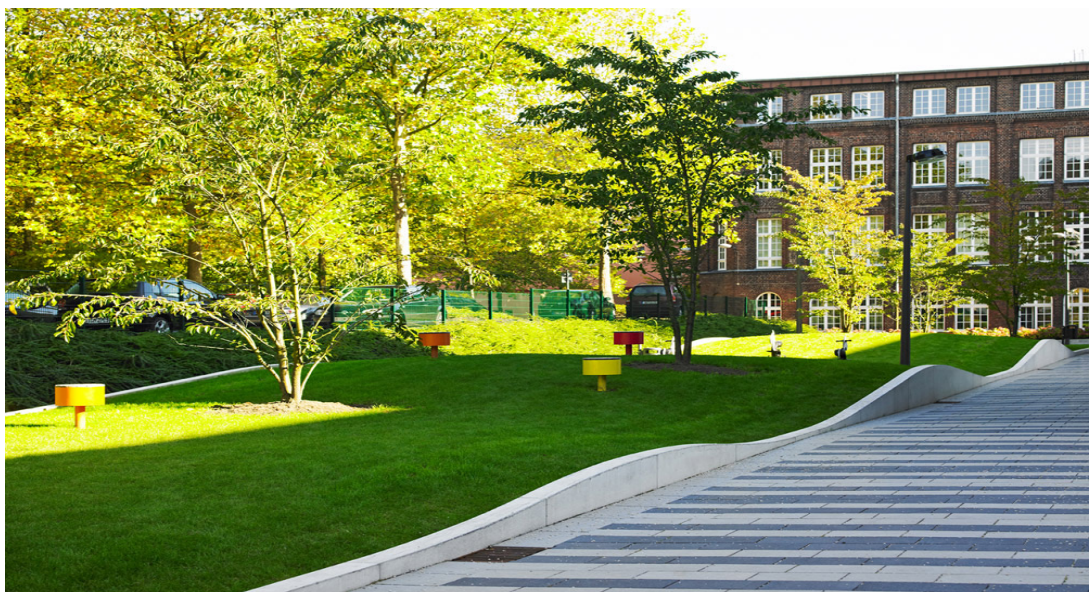


19. Open Grass Area Lawn - Small

Definition	Open, level grass area to accommodate several play activities.
Size	Small: 5,000 square feet minimum.
Possible Activities	Small group outdoor activities, such as volleyball, soccer practice, badminton, frisbee, exercise groups, picnics or small group gatherings.
Location	Integrated into residential development.
Design Criteria	<p>Setbacks: 30 feet from building, 30 feet from curb.</p> <p>Lawn area is defined and contained by architecture and landscaping.</p> <p>Essentially flat in grade or minimal slope (3 percent) to enable running, free play and group activities.</p> <p>Consider compatibility with immediately surrounding uses when placing lawn.</p> <p>Setbacks may be reduced in multifamily housing and townhouse communities, provided that other measures, such as landscaping and fencing, can be used effectively to screen or to achieve compatibility with the open lawn area</p>
Components	Seating areas, shaded areas, articulated perimeter, pedestrian connections, bicycle parking.

Supply Values

Lawn Areas	Tots	Children	Teens	Young Adults	Adults	Seniors
Small	3	4	9	9	9	3



Lawn area, mixed-use residential project, Solingen, Germany



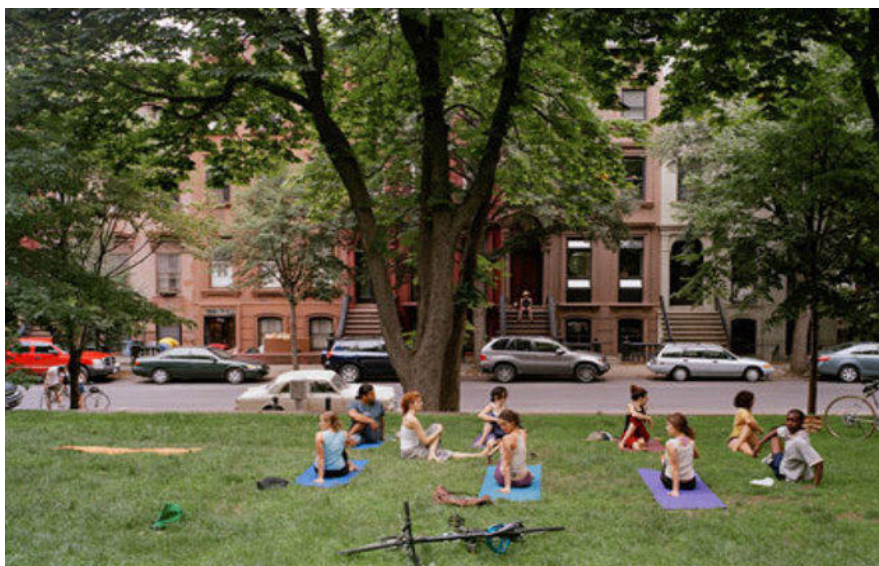
Small Open Grass Area Examples

*Lawn area,
Marshall Apartments,
Minneapolis, MN*



*Lawn area, Farm School,
Dongnai, Vietnam*

*Fort Greene Park,
Brooklyn, NY*





20. Open Grass Area Lawn - Large

Definition	An open, level grass area to accommodate simultaneous play for a number of varied sport activities within an urban or suburban residential or mixed-use community.
Size	Large: 10, 000 square feet minimum.
Possible Activities	Small group outdoor activities, such as volleyball, soccer practice, badminton, frisbee, exercise groups, picnics or small group gatherings, separate landscaped areas for toddlers and small children
Location	Integrated into residential development.
Design Criteria	<p>Setbacks: 30 feet from building, 30 feet from curb.</p> <p>Lawn area is defined and contained by architecture and landscaping. Consider compatibility with immediately surrounding uses when placing lawn.</p> <p>Setbacks may be reduced in multifamily housing and townhouse communities, provided that other measures, such as landscaping and fencing, can be used effectively to screen or to achieve compatibility with the open lawn area.</p>

Supply Values

Lawn Areas	Tots	Children	Teens	Young Adults	Adults	Seniors
Large	6	9	15	20	15	6



*Large open grass area,
Boston Public Garden,
Boston, MA*



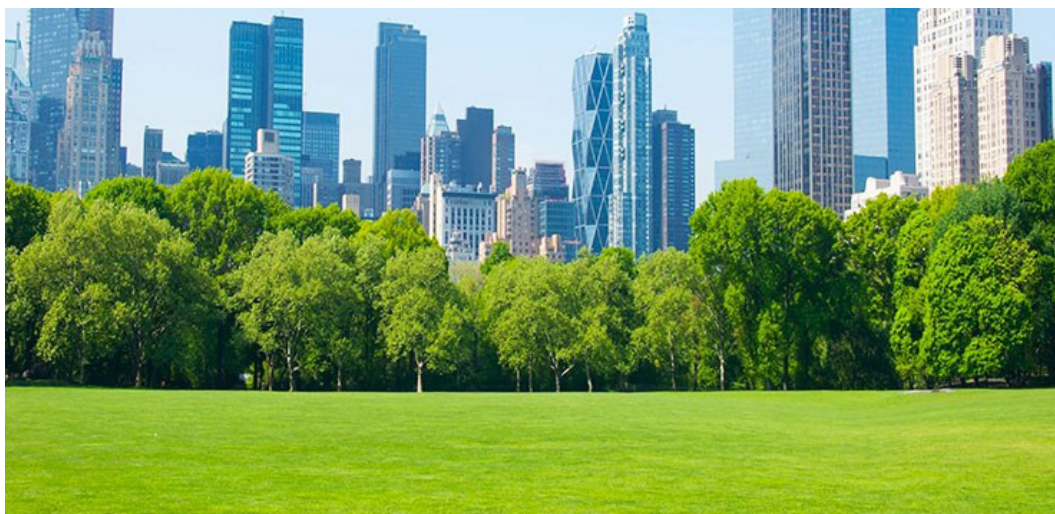
Large Open Grass Area Examples



*Le Jardinde Reuilly, La Coulee Verte
Paris, France*



*Las Escuelas Nacionales de Arte,
Havana, Cuba*



Sheep's Meadow, Central Park, New York, NY



21. Open Grass Area Lawn - Urban

Definition	An open, level grass area to accommodate relaxation, play or sport activity within a high density residential or mixed-use community within an urban area.
Size	Urban: 2,000 square feet minimum.
Possible Activities	Small group outdoor activities, such as volleyball, soccer practice, badminton, frisbee, exercise groups, picnics or small group gatherings.
Location	Integrated into residential development.
Design Criteria	<p>Setbacks: 30 feet from building, 30 feet from curb.</p> <p>Lawn area is defined and contained by architecture and landscaping.</p> <p>Consider compatibility with immediately surrounding uses when placing lawn.</p> <p>Setbacks may be reduced in multifamily housing and townhouse communities, provided that other measures, such as landscaping and fencing, can be used effectively to screen or to achieve compatibility with the open lawn area.</p> <p>Design of the space should be open and inviting at the sidewalks, easily seen; low-height design elements should be convey openness with generous entry paths.</p>

Supply Values

Lawn Areas	Tots	Children	Teens	Young Adults	Adults	Seniors
Urban	2	3	5	7	8	3

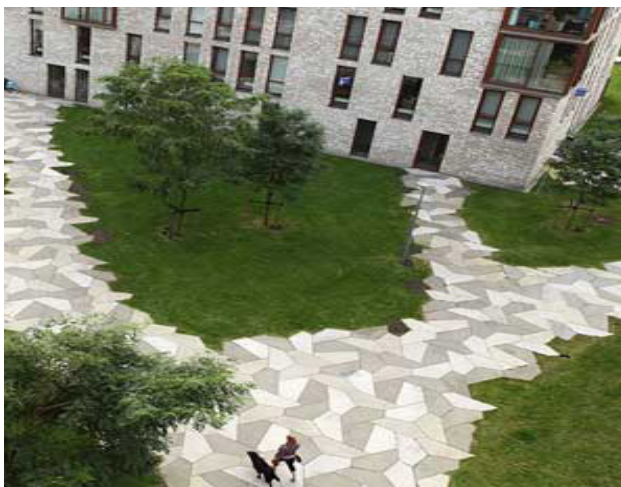


Urban lawn area, Yards Park, Washington, DC



Urban Open Grass Area Examples

*Right and below:
Urban lawn area,
Canal Park, Washington, DC,*



*Left and above: Urban lawn area,
Funenpark residential complex, Amsterdam, Netherlands*



*Little Falls Watershed,
Montgomery County, MD*



22. Natural Area

Definition	A substantial area of natural preserve where access is possible without the provision of formal paths.
Size	Minimum width of 50 feet per location and a minimum total area of 200 square feet per dwelling unit, no less than 5,000 square feet.
Possible Activities	Hiking and nature study
Design Criteria	<p>Natural areas are woodlands, wetlands, ponds and marshes.</p> <p>These areas should be accessible from a public street or common land.</p> <p>The area should be cleared of man-made debris, exotic invasive species.</p> <p>Provide routine care for edge conditions and access points.</p> <p>Portions of the area should be passable and walkable.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Natural Area	0.05xD1	0.05xD2	0.10xD3	0.10xD4	0.10xD5	0.05xD6



Wooded area,
Edinburgh, Scotland



23. Renovated Stream or Naturalized Area

Definition	A restored stream area.
Size	A nature area should be provided as a single tract of 5,000 square feet or a series of linked tracts that total 5,000 square feet.
Possible Activities	Hiking, nature study and other passive outdoor recreational activities.
Location	Where indicated in local area plan.
Design Criteria	<p>Consider comprehensive strategies to return the area's ecosystems to a stable, healthy condition.</p> <p>Ensure the early and continued participation of all state and local agencies with applicable jurisdiction.</p> <p>Where indicated by a local area plan, incorporate public amenities accessible to the community that include areas for passive recreation and educational opportunities.</p> <p>Consider signage to describe stream restoration or a tablet or phone app to provide information about the restored area.</p>
Components	Delineated path, interpretive signage, seating.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Restored or Renovated Stream	0.10xD1	0.10xD2	0.20xD3	0.20xD4	0.20xD5	0.10xD6



*Restored stream, Minghu Wetland Park,
Guizhou, China*



Stream Restoration or Naturalized Area Examples



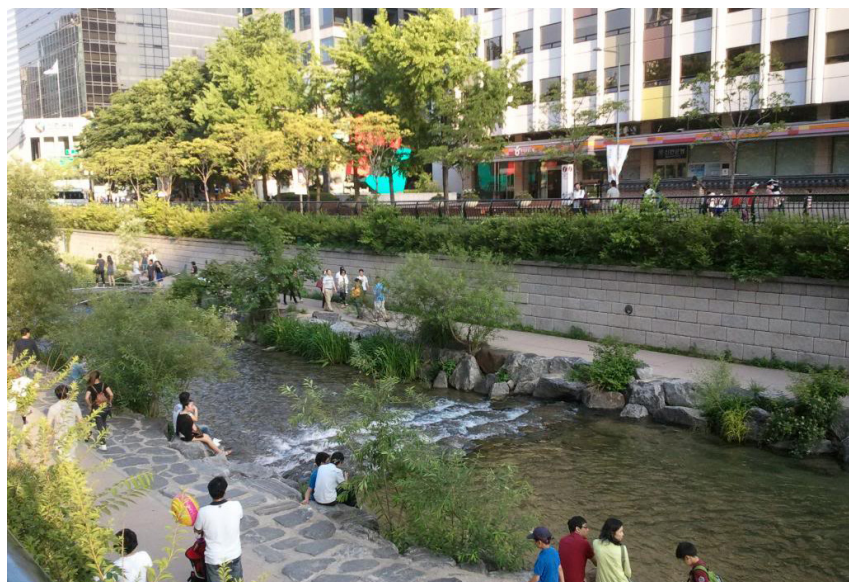
Clockwise from top:

*Daylighted Sawmill River,
Yonkers, NY*

*Restored stream, Bishan-Ang Mo Kio Park,
Singapore*

*Daylighted urban waterway,
Cheonggyecheon Stream,
Seoul, Korea*

*Stream restoration, Shuicheng River,
Liupanshui City, China*





24. Community Garden

Definition	Garden Plots for the use of residents or community members.
Size	Approximately 25 square feet per dwelling unit, minimum.
Possible Activities	Gardening.
Design Criteria	<p>Provide 10 feet minimum setback from the closest building (will vary in multi-family buildings and urban locations). Provide 20 feet minimum setback from an adjacent street.</p> <p>Provide landscaping around garden plot area. Provide a compost area.</p> <p>Ensure full sun orientation. Consider locating garden near a natural area, or natural trail, where "forest food," i.e. mulberries, paw paw or fruit and nuts may be cultivated.</p> <p>A water hookup should be provided and made accessible to all plots.</p> <p>Consider providing a tool shed and seating areas for larger gardens</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Community Garden	0.10xD1	0.10xD2	0.10xD3	0.15xD4	0.20xD5	0.25xD6



View of a community gardener



25. Ornamental/Sculpture Garden

Definition	An outdoor contemplative garden that includes permanently sited art-works.
Size	Will vary depending on artwork size.
Possible Activities	Passive outdoor recreational activities.
Location	Integrated to residential development.
Design Criteria	Consider locations encourage viewing from indoors and outdoors. Landscape should include shaded areas and a variety of plants complementary to the art selection. Include water features. Provide adequate lighting and seating.
Components	Seating, interpretive signage.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Sculpture Garden	2	3	3	7	8	5



Yorkshire Sculpture Park,
West Bretton, Wakefield, United Kingdom



26. Playground - Tot Lot

Definition	A facility with play features to support a range of activities for tots, children and teens.
Size	1,000 square feet minimum; 5 activities
Possible Activities	Activities: climbing, swinging, spinning, sliding, balancing, jumping, hanging, creative play, crawling, hiding, rocking, rolling, bouncing, digging, sand and water play. All facilities must include climbing and sliding activities.
Location	Smaller facilities may be integrated into a residential development or a local public park. Larger facilities should be accessibly located within a central business district.
Setbacks	Age 2-5: 30 feet from nearest building, 30 feet from curb. Setbacks may be reduced in multi-family communities provided that other measures, such as landscaping and fencing, are used as necessary to achieve compatibility with adjacent uses.
Design Criteria	Provide shade trees and plantings as needed to screen the area. Provide adjacent seating area and trash receptacles. Comply with government agency requirements for playground design and safety.
Resources	United States Consumer Protection Safety Commission National Program for Playground Safety http://playgroundsafety.org/standards/cpsc Design and construction of playgrounds must conform to the requirements of ADA Amendments Act of 2008.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Tot Lot Play Area	9	2	2	3	3	3



Tot Lot Examples



Clockwise from top:

*Toddler playground,
Aire de jeux Espace Libre,
Alfordville, France*

*Community tricycle track,
Bedford, England*

*Dome playground, Neue Park
Berlin, Germany
Equipment by Goric*

*Tot lot, North Star Mall,
San Antonio, TX*





27. Playground - Play Area

Definition A facility with play features to support a range of activities for children ages 5-12.

1,500 square feet minimum; 5 activities.

Possible Activities All ages: climbing, swinging, spinning, sliding, balancing, jumping, hanging, creative play, crawling, hiding, rocking, rolling, bouncing, digging, sand and water play.

Older only (5-12): athletic/exercise equipment, some adventure activities

All facilities must include climbing and sliding activities.

Location Smaller facilities may be integrated into a residential development or a local public park.

Larger facilities should be accessibly located within a central business district.

Setbacks 50 feet from nearest building, 30 feet from curb.

Setbacks may be reduced in multi-family communities provided that other measures such as landscaping and fencing are used as necessary to achieve compatibility with adjacent uses.

Design Criteria Provide shade trees and plantings as needed to screen the area.

Provide adjacent seating area and trash receptacles.

Comply with government agency requirements for playground design and safety.

Resources United States Consumer Protection Safety Commission National Program for Playground Safety

<http://playgroundsafety.org/standards/cpsc>

Design and construction of playgrounds must conform to the requirements of ADA Amendments Act of 2008

Supply Values

		Tots	Children	Teens	Young Adults	Adults	Seniors
Childrens' Play Area	Ages 2-12	0	9	3	2	4	2





Play Area Examples



*From top:
Parc-des-Cormailles,
Agence Ter, Ivry-sur-Seine, France*

*Linear playscape, Brigge Kalvebod,
Copenhagen, Denmark
JDS Architect*

*Playground, wall-holla climbing structure,
by Lappset Co*

Opposite: Waterside playground, New York, NY





28. Playground - Multi-Age Play

Definition	<p>A facility with play features to support a range of activities for tots, children and teens.</p> <p>2,500 square feet minimum; 10 activities</p>
Possible Activities	<p>All ages: climbing, swinging, spinning, sliding, balancing, jumping, hanging, creative play, crawling, hiding, rocking, rolling, bouncing, digging, sand and water play.</p> <p>Toddlers: (2-5): ground based sensory play, swinging, see Facility #24.</p> <p>Older only (5-12): athletic/exercise equipment or some adventure activity.</p> <p>All facilities must include climbing and sliding activities.</p>
Location	<p>Smaller facilities may be integrated into a residential development or a local public park.</p> <p>Larger facilities should be accessibly located within a central business district.</p>
Setbacks	<p>Age 2-5: 30 feet from nearest building, 30 feet from curb.</p> <p>Age 5-12: 50 feet from nearest building, 30 feet from curb.</p> <p>Setbacks may be reduced in multi-family communities provided that other measures such as landscaping and fencing are used as necessary to achieve compatibility with adjacent uses.</p>
Design Criteria	<p>Provide shade trees and plantings as needed to screen the area.</p> <p>Provide adjacent seating area and trash receptacles.</p> <p>Comply with government agency requirements for playground design and safety.</p>
Resources	<p>United States Consumer Protection Safety Commission National Program for Playground Safety</p> <p>http://playgroundsafety.org/standards/cpsc</p> <p>Design and construction of playgrounds must conform to the requirements of the ADA Amendments Act of 2008.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Multi-age Play Area	9	11	3	2	4	2



Playground - Multi-age Examples



*From top:
Playground, Fuji Hakone Izu National Park,
Fujinomiya, Japan*

*Playground, climbing structures and slides,
National Arboretum,
Canberra, Australia*

*Bronze sculptural playscape,
Silver Towers Playground, New York, NY
Artist Tom Ottern*





29. Playground: Inclusive Recreation

Definition	A recreation facility that includes opportunities for sport or recreation for children with disabilities.
Size	Will vary depending on facility location or equipment type.
Possible Activities	Climbing, swinging, spinning, sliding, balancing, jumping, hanging, creative play, crawling, hiding, rocking, rolling, bouncing, digging, sand and water play.
Location	Integrated into residential development; part of a local public park; where designated by a facilities plan or local area plan.
Design Criteria	<p>Include all types of play and insure a mix of physical, sensory, and social activities. Provide areas of shade, sun and color. Provide multiple challenge levels for each type of physical play. Provide activities for balance, sensory integration, learning about safe visual and physical cues. Provide a quiet, respite place for retreat to accommodate over-stimulation.</p> <p>Ensure modular structures provide alternative activities on each deck level.</p> <p>Encourage similar play at various ability levels in close proximity.</p> <p>Cluster activities into pods for better management.</p> <p>Consider unitary surfacing to improve wheel access and navigation.</p> <p>Ensure the most popular activities are accessible by all ability levels.</p> <p>Provide travel routes comfortable enough to accommodate wheelchairs.</p>

Source: Playground Professionals

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Inclusive Recreation Playground	12	12	4	3	10	8



*Inclusive, accessible carousel,
Clemmyjontri Park, McLean, VA
Design by Grace Fielder and Associates*



Inclusive Playground Examples

*Clemyjontri Park, McLean, VA.
G.E. Fielder & Associates,*

Left: Shade structures and colors

*Right: Liberty Swing,
wheelchair swing*

*Below Left:
Clemyjontri Park.
McLean, Virginia.
Aerial view of site plan showing
its four play rooms*



*The Playpark Exeter,
Devon, England*

*Above right: wheelchair trampoline:
Right: wheelchair seesaw*



30. Resident Lounge

Definition	Interior communal space with furnishings and recreational amenities.
Size	6 square feet per dwelling unit, minimum.
Possible Activities	Seating, small group gathering, reading, TV watching, limited cooking.
Design Criteria	<p>Provide an open and inviting area with multiple seating areas for individual or group use, where a variety of social interactions can occur simultaneously.</p> <p>Include technology, such as TV screens and WiFi access.</p> <p>Consider access to natural light and connections to other communal areas, such as gardens or terraces.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Resident Lounge	0	2	5	10	8	7

Resident lounge area,
River House Apartments,
Arlington, VA



Resident lounge area,
Monroe Street Market Apartments,
Washington, DC



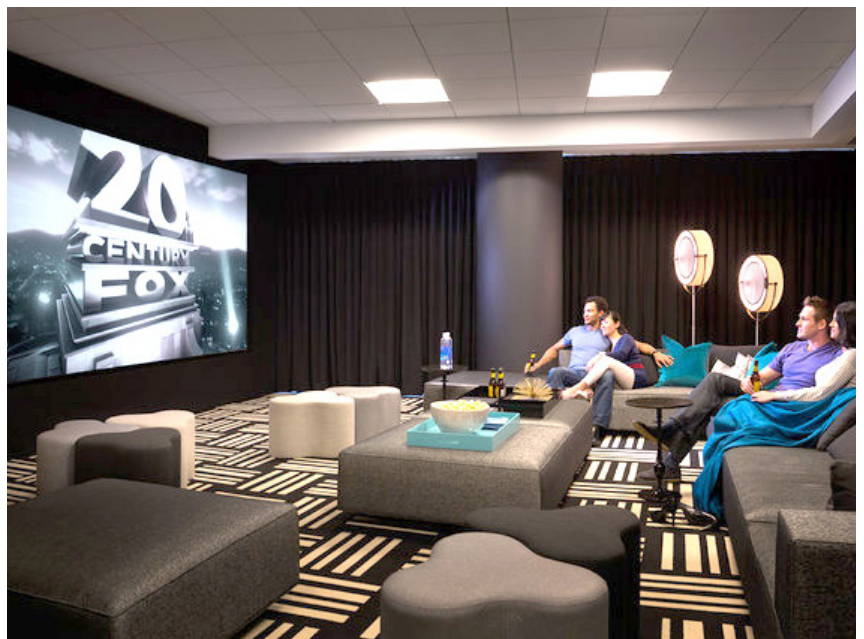


31. Screening Room

Definition	A room for group film viewing.
Size	Approximately 2 square feet per dwelling unit..
Possible Activities	Group film viewing.
Location	Integrated into residential development.
Design Criteria	Ensure acoustical separation from adjacent building areas. Provide controllable lighting and tiered seating areas. Provide access and designated areas for people with disabilities that allows integration of users.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Screening Room	0	2	6	7	7	2



Screening room, Grant Apartments,
Chicago, IL

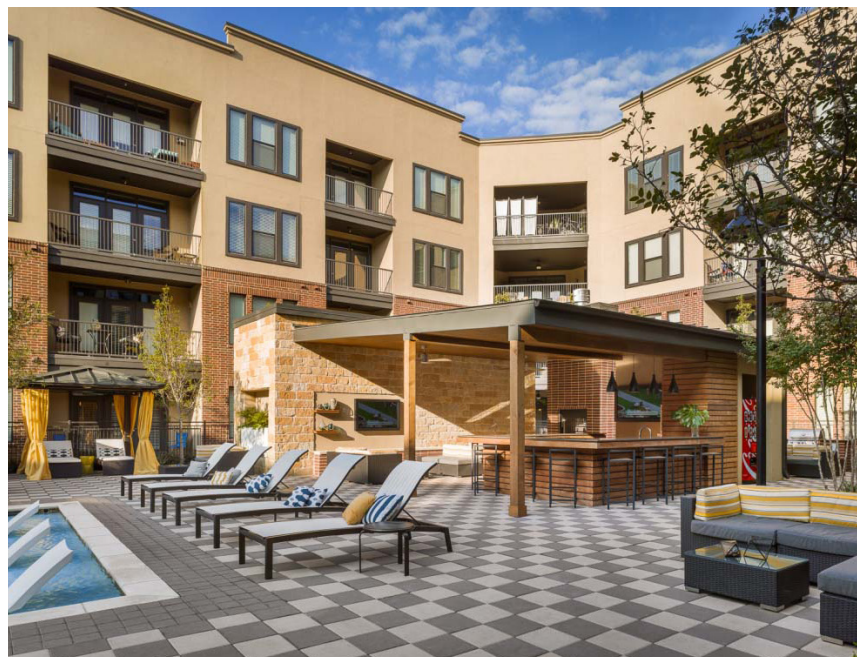


32. Interior Courtyard, Garden or Lawn

Definition	An outdoor room contained within the building for social engagement and group activities.
Size	Depending on building size and configuration, minimum 1,200 square feet.
Possible Activities	Seating, small group gathering, reading, movie watching, limited cooking.
Design Criteria	<p>Provide an open and inviting area with multiple seating areas for individual or group use where a variety of social interactions can occur simultaneously.</p> <p>Include technology such as TV screens, sound system and WiFi access.</p> <p>Consider access to natural light, trees, and connections to other communal areas such as gardens or terraces.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Interior Courtyard	2	3	4	7	7	5



*Interior court, West Plano Apartments,
Plano, TX*



Interior Courtyard Examples



*Residential interior courtyard,
540 West 49th Street,
New York, NY*



*Interior courtyard,
Shady Commons Rentals,
Pittsburgh, PA*



*Interior courtyard,
Amalgamated Housing Cooperative,
Bronx, NY*



33. Multi-purpose Lobby Area

Definition	A multi-purpose entrance that includes socializing areas for groups of residents and visitors.
Size	Depending on building size and configuration, minimum 1,200 square feet.
Possible Activities	Seating, small group gathering.
Location	Integrated into residential development.
Design Criteria	<p>Provide adequate lighting and seating.</p> <p>Direct connection to other resident amenity areas and outdoor spaces is desirable.</p> <p>Organization of seating areas should clearly reflect a variety of opportunities for individual and small group activities.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Multi-purpose Lobby Area	0	0	2	3	3	2

*Lobby, Octave1320 Condominiums,
Silver Spring, MD*



*Lobby, Monroe Street Market Apartments,
Washington, DC*





34. Internet Cafe

Definition	A lounge or work area outfitted with terminals with internet service for resident use.
Size	6 square feet per dwelling unit, minimum; can be part of resident lounge or multi-purpose lobby area.
Possible Activities	Internet use, seating, small group gathering.
Design Criteria	Provide an open and inviting area with multiple seating areas for individual or group use, where a variety of social interactions can occur simultaneously. Include technology, such as TV screens and WiFi access.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Internet Cafe	0	0	5	7	4	3

*Internet cafe area,
2125 Franklin Apartments,
Eugene, OR*



*Internet cafe area,
Arbors at Brentwood Apartments,
Nashville, TN*





35.. Rooftop Amenity Area

Definition	Recreational amenities located on the roof of a high-rise or a mid-rise residential building.
Size	Will vary depending on amenities included.
Possible Activities	Sitting, group gathering, swimming, cooking, grilling, sunbathing, exercising.
Location	Rooftop areas.
Design Criteria	<p>Amenities might include outdoor lounge areas, TVs or movie projector for outdoor viewing, grilling areas, outdoor fitness areas, fire pits and gardening areas, endless pool with seating.</p> <p>Include shade structures, adequate lighting and a variety of seating areas.</p> <p>Consider views when distributing rooftop amenities.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Rooftop Amenity Area	0	2	7	10	7	5



*Rooftop amenity area,
W Hollywood Penthouses,
Los Angeles, CA*



36. Community Kitchen

Definition	Indoor community cooking area.
Size	6 square feet per dwelling unit, minimum.
Possible Activities	Individual or group cooking, cooking classes.
Design Criteria	Ensure sufficient space and equipment for multiple, simultaneous users. Consider location adjacent to other open resident amenity areas, such as the resident lounge, or connect to outdoor terraces, community rooms or ground-floor dining areas.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Community Kitchen	0	0	2	9	10	6



*Community kitchen,
Parks at Nexton Apartments,
Charleston, SC*



37. Urban Plaza

Definition	An open space for public use defined by surrounding buildings and streets.
Size	Less than 1 acre. Actual size could be dependent on programmatic requirements.
Possible Activities	Seating, group gatherings, shopping, dining, organized activities, special events.
Location	Integrated with development; convenient to mass transit.
Design Criteria	Visibility from adjacent sidewalks, streets and buildings is desirable. Primarily hardscape - should consider pervious surfaces if feasible. Include trees for shading and limited landscaped areas. Provide a variety of seating options.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Urban Plaza	4	6	6	18	15	6



*Columbia Heights Civic Plaza,
Washington, DC*



38. Through-Block Pedestrian Connection

Definition	A public space that provides visual and physical connective pedestrian route through an urban block.
Size	Location, dimensions, solar orientation and connectivity appropriate to the development and the surrounding context. The through-block connection should relate in proportion, scale and materials, furnishings and fixtures, to the block interior as well as the th larger exterior context.
Possible Activities	Seating, gathering, shopping, dining, organized activities, special events.
Location	Higher density development areas; Adjacent to public roads and/or business district streets.
Design Criteria	Defined by street walls with active uses. Primarily hardscape- should consider pervious surfaces if feasible. Street walls should maintain continuity with street walls at adjacent streets. Provide seating alternatives to serve pedestrians and surrounding active uses. The pedestrian connection should provide visual clues as to the destination, i.e., daylight, night-lighting to visually guide the visitor or resident through the block.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Through-Block Pedestrian Connection	3	5	5	10	8	5



*Arts Walk,
Monroe Street Market Development,
Washington, DC*



39. Neighborhood Green

Definition	An open space for public use that provides informal recreation in primarily residential areas.
Size	One acre minimum.
Possible Activities	Passive recreation, small group gatherings, sport games, limited active recreation areas.
Location	Integrated into primarily residential development.
Design Criteria	<p>Surrounded by local streets and medium to low density development.</p> <p>Visibility and access from adjacent sidewalks, streets and buildings.</p> <p>Include trees for shading, plantings, lawn areas, shaded sitting and pathways.</p> <p>Active recreation areas might include play equipment or multi-use courts.</p> <p>May include community gardens.</p> <p>The form and shape of the space is critical to its role as a social and neighborhood center; the space must allow for gathering, events and be visually accessible from a number of vantage points and public streets.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Neighborhood Green	5	7	6	8	8	6



*Neighborhood park, White Horse Beach,
Plymouth, MA*



40. Pocket Green

Definition	A small scale urban open space tucked into urban fabric.
Size	Approximately 1/4 acre or less.
Possible Activities	Seating, small group gathering.
Location	Integrated with development, within a high density development area.
Design Criteria	<p>Defined by building walls on at least three sides; these may or may not support activating uses, such as retail.</p> <p>Direct access to a local street.</p> <p>Visibility and access from adjacent sidewalks, streets and buildings.</p> <p>Primarily hardscape - should consider pervious surfaces if feasible.</p> <p>Include planting areas, water features, a variety of seating options and public art. The space should relate to its context and the public realm with respect to identity, access, routing, visual cues and activities. The green should be so placed as to connect easily to a series of public spaces, forming a link in a chain of public amenities.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Pocket Green	3	5	5	8	8	6



*John F. Collins (formerly Chestnut) Park,
Philadelphia, PA*



41. Basketball - Full Court

42. Basketball - Half Court

Definition	A paved court for basketball.
Size	Full Court: 56 by 92 feet Half Court: 56 by 50
Possible Activities	Basketball.
Setbacks	50 feet from nearest adjacent building, 30 feet from curb.
Design Criteria	North-south orientation is preferred if located outdoors. Maximum 1 percent slope in any direction for drainage Provide two permanent basketball standards for full size court; one standard for half court. Combinations of full and half courts could be considered.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Basketball Full Court	3	10	15	12	6	2.5
Basketball Half Court	2	5	7	10	6	1



Full court regulation basketball court,
Tempe, AZ



43. Basketball - Adaptive Use

Definition	A space for basketball, either outdoor or indoor, that accommodates players with disabilities: either wheelchair basketball, or a non-competitive, inclusive individual skills game with stations.
Size	Wheelchair basketball: full-court or half-court (See 42), Basket height: 8'-6" Individual Skills Game Stations: minimum 6 stations, 1,6000 square feet.
Possible Activities	Basketball team game (3-on-3/5-on-5) or individual skills games.
Setbacks	50 feet from nearest adjacent building, 30 feet from curb.
Design Criteria	North-south orientation is preferred if located outdoors, level grade. Either outdoor (paved for wheelchair game), (grass, concrete or asphalt for individual skill games); indoor games (resilient flooring). Fencing should be provided at a height sufficient to prevent errant balls from interfering with surroundings. Seating or benches, with shade if outdoors, should be provided for spectators, along with water stations.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Basketball Adaptive Use	0	9	10	14	6	1



Left: Bank-Shot inclusion basketball,
Huntley Park, IL



Right: Euroleague wheelchair basketball
World Tournament 2012



44. Tennis Court

Definition	Regulation tennis court.
Size	124 by 54 feet.
Possible Activities	Tennis.
Design Criteria	North-south orientation is preferred. Consider landscape screening to define the area. Provide 10-foot high chain link fence, minimum one foot from outer edge of court. Include a practice wall. Maximum 1 percent slope in any direction for drainage. Include seating with shade.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Tennis Court	0	5	7	10	6	1



Public tennis courts,
Miramar, FL



45. Tennis Court - Adaptive Use

Definition	A court for tennis, either outdoor or indoor, that accommodates players with disabilities: either wheelchair tennis, or a non-competitive, inclusive individual skills game with stations.
Size	124 by 54 feet.
Possible Activities	Tennis.
Design Criteria	<p>North-south orientation is preferred.</p> <p>Consider landscape screening to define the area and provide shade.</p> <p>Provide 10-foot high chain link fence, minimum five feet from outer edge of court.</p> <p>Maximum 1 percent slope in any direction for drainage.</p> <p>Adaptive elements may include lower level nets, larger, lighter tennis balls, larger racket heads, or brightly colored balls, acoustic lines or sounding balls.</p> <p>Provide seating or benches, with shade if outdoors, for spectators, along with water stations.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Tennis Court	0	9	12	14	12	12



Left:
Western Suburbs Tennis Assn Tournament,
New South Wales, Australia



Right: Bankshot Tennis Station,
Huntley Park, IL



46. Volleyball or Badminton Court

Definition	A level grassy area with poles to support a volleyball net.
Size	42 by 60 feet clear playing area.
Possible Activities	Volleyball, badminton, croquet.
Setbacks	50 feet from nearest adjacent building. 30 feet from curb. Setbacks may be reduced in multifamily communities, provided screening measures, such as landscaping and fencing, are used to achieve compatibility with surrounding uses.
Design Criteria	North-south orientation is preferred. Consider using landscaping to define the area and screen from adjacent uses. Maximum 2 percent positive slope for drainage.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Volleyball Court	2	2	3	10	6	1



*Volleyball setup,
Brooklyn Bridge Park,
Brooklyn, NY*



47. Multipurpose Court

Definition	A paved, outdoor court to accommodate basketball and other activities.
Size	56 by 92 feet.
Possible Activities	Basketball, tricycling, skateboarding, rollerskating.
Setbacks	50 feet from nearest adjacent building, 30 feet from curb.
Design Criteria	<p>North-south orientation is preferred if located outdoors.</p> <p>Provide two permanent basketball standards for full size court; one standard for half court.</p> <p>Combinations of full and half courts could be considered.</p> <p>Maximum 1 percent slope in any direction for drainage.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Multipurpose Court	3	10	15	10	8	2.5



Multipurpose court with basketball, tennis and volleyball markings



48. Softball/Baseball Diamond - Large

49. Softball/Baseball Diamond - Small

Definition	<p>Large: A paved, full court for basketball that may also accommodate several other activities, such as tricycling, skateboarding, roller skating; includes two basketball standards.</p> <p>Small: A junior practice softball or pony league field on turf grass surface with back stops, reduced base distances and field dimensions.</p>
Size	<p>Softball regulation: 2 acres</p> <p>Softball junior: 1.5 acres</p> <p>Baseball regulation: 3 acres</p> <p>Baseball junior: 2- 2.5 acres</p>
Possible Activities	Softball, Baseball.
Setbacks	<p>100 feet from nearest adjacent building.</p> <p>40 feet from curb.</p>
Design Criteria	<p>Home plate to second base directly north-south with home plate facing north or NW-SW orientation (20 degrees west of north).</p> <p>Consider shade for spectator areas if seating is provided. Consider spectator seating on grassy slopes or bleachers.</p> <p>Provide 1.25 percent to 2 percent slopes for drainage.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Large Diamond	2	15	20	25	15	2
Small Diamond	1	7	10	12	7	2



Example of a small baseball diamond



50. Soccer Rectangle - Small
51. Soccer Rectangle - Medium
52. Soccer Rectangle - Large

Definition	A field on turf grass with two permanent goals to accommodate soccer, lacrosse or football.
Size	Small: 75 by 150 feet. Medium: 120 by 180 feet. Large: 150 by 250 feet.
Possible Activities	Soccer, lacrosse, football.
Setbacks	100 from nearest adjacent building. 40 feet from curb.
Design Criteria	Northwest-southwest orientation preferred. Provide a central longitudinal crown with 1.5 percent slope to sidelines for drainage. Consider spectator seating on slopes or bleachers. If seating is provided, consider shade for seating areas.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Small Rectangle	1	10	8	10	8	2
Medium Rectangle	1	12	10	12	8	2
Large Rectangle	2	15	20	25	15	2



*Soccer field, Rafferty Stadium,
Fairfield University,
Fairfield, CT*

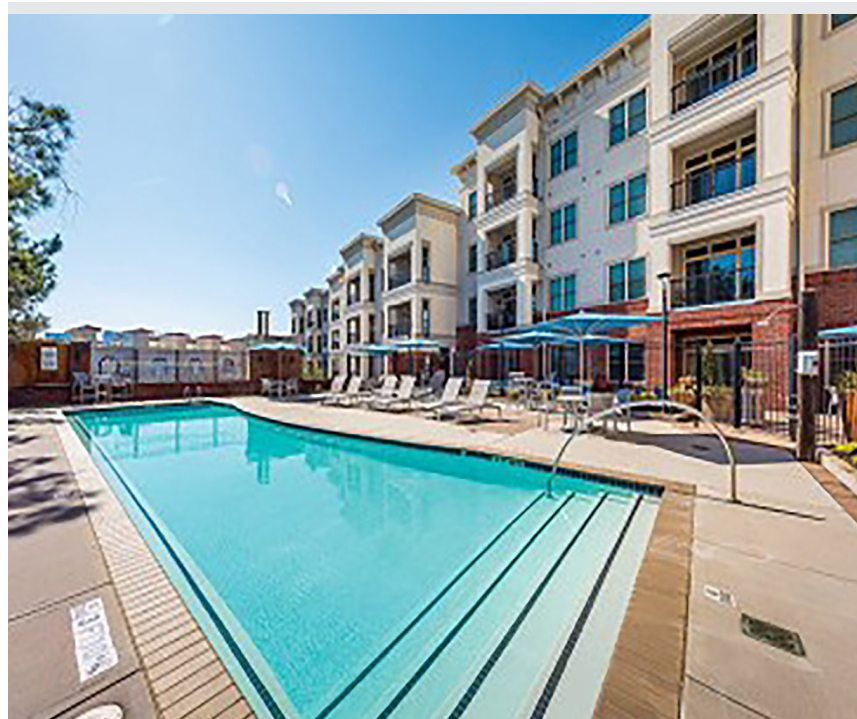


53. Swimming Pool - Outdoor

Definition	A swimming pool with a deck for use by the community.
Possible Activities	Recreational swimming, lap swimming.
Setbacks	Deck of pool: 50 feet from a residential building. Deck of pool: 30 feet from curb. Setbacks will vary from above if pool is part of a multi-family roof amenity area.
Design Criteria	Provide shade for sitting areas. Must conform to Montgomery County Department of Health standards on pool construction (<i>Manual on Swimming Pool Construction</i> , January 2014).

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Outdoor Pool	0.05xD1	0.20xD2	0.20xD3	0.35xD4	0.25xD5	0.10xD6



Outdoor pool, Tremont Apartment Homes,
Atlanta, GA



54. Swimming Pool - Indoor

Definition	A swimming pool with a deck for year-round use by a community.
Possible Activities	Recreational swimming, lap swimming.
Design Criteria	Must conform to Montgomery County Department of Health standards on pool construction (<i>Manual on Swimming Pool Construction</i> , January 2014).

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Indoor Pool	0.10xD1	0.20xD2	0.40xD3	0.40xD4	0.30xD5	0.40xD6



Indoor swimming pool



55. Wading Pool

Definition	A small, shallow pool with a deck for the use of small children in a community.
Possible Activities	Water play.
Setbacks	35 feet from nearest adjacent residential building. 30 feet from curb.
Design Criteria	Must conform to Montgomery County Department of Health standards on pool construction (<i>Manual on Swimming Pool Construction</i> , January 2014).

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Wading Pool	0.20xD1	0.05xD2	0.00xD3	0.00xD4	0.05xD5	0.05xD6



Wading pool, McKennan Park,
Sioux Falls, SD



56. Lap Pool

Definition	A pool to accommodate lap swimming.
Possible Activities	Lap swimming.
Design Criteria	Design capacity and dimensions varies by location and types of use, public or private access, expected required capacity and hours of operation. Must conform to Montgomery County Department of Health standards on pool construction (<i>Manual on Swimming Pool Construction</i> , January 2014).
Design Criteria	Must conform to Montgomery County Department of Health standards on pool construction (<i>Manual on Swimming Pool Construction</i> , January 2014).

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Lap Pool	0.00xD1	0.30xD2	0.40xD3	0.50xD4	0.30xD5	0.15xD6



Indoor lap pool



57. Lounge Pool

Definition	A shallow pool for socializing and relaxation.
Possible Activities	Small group gathering, relaxation.
Design Criteria	Must conform to Montgomery County Department of Health standards on pool construction (<i>Manual on Swimming Pool Construction</i> , January 2014).

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Lounge Pool	0.00xD1	0.00xD2	0.25xD3	0.40xD4	0.30xD5	0.15xD6



*Rooftop lounge pool area,
Bohemian House Apartments,
Atlanta, GA*



58. Rock Climbing

Definition	A prepared surface for rock climbing.
Size	Minimum 7 linear feet per participant.
Possible Activities	Indoor rock climbing.
Location	Integrated into residential development.
Design Criteria	<p>Consider wall design that can safely accommodate roped climbing (higher elevation), bouldering (un-roped climbing) or traverse climbing (lower elevation, more suited for kids). Design will vary depending on available area and number of routes to be accommodated.</p> <p>Provide crash pads or safety flooring as needed.</p> <p>Constructed facility must meet applicable Association for Challenge Course Technology (ACCT) installation standards or Climbing Wall Association (CWA) design and engineering standards, as well as any applicable state and local safety standards.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Rock Climbing	0	0	9	12	6	1



*Climbing wall, Rock Climb Fairfield,
Fairfield, CT*



59. Skate Park

Definition	A purpose-built recreational environment made for skateboarding.
Size	6,000 to 10,000 square feet.
Possible Activities	Skateboarding.
Location	Where indicated on facilities plan or local area master or sector plan.
Design Criteria	<p>Smooth concrete surfaces are preferred.</p> <p>Designed to meet all skill levels. Create separate areas for different skill levels.</p> <p>Include a street course with multiple events such as steps, ledges, and railings.</p> <p>Ensure maximum flat-bottom area between obstacles and opposing transitions.</p> <p>Avoid event overcrowding.</p>
Resources	<p>Skate Park Guide</p> <p>http://www.skateparkguide.com/design_basics.html</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Skate Park	0	6	10	12	7	1



Gabe Nesbitt Skate Park,
McKinney, TX



60. Skate Spot

Definition	An area containing street-style obstacles for skateboarding.
Size	2,500 to 5,000 square feet.
Possible Activities	Skateboarding.
Location	Integrated to residential development or part of a local public park.
Design Criteria	<p>Consider urban locations where the spot can be safely integrated with the urban streetscape, or park locations where the spot can be provided with enough area to be utilized safely.</p> <p>Include events, such as ledges, steps, railings or sculptural elements, constructed as part of the course.</p>
Resources	<p>Skate Park Guide</p> <p>http://www.skateparkguide.com/design_basics.html</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Skate Spot	0	4	9	11	5	1

*Rob Dyrdek Safe Skate Spot,
Cesar Chavez Park,
Phoenix, AZ*



*Sculpture skate spot,
Barcelona, Spain*





61. Public Park Construction (Major Public Facility)

Definition	Significant acreage set aside as part of a development for construction of a public park. Subcategories include: <ul style="list-style-type: none">• Recreational parks: Active recreation and natural areas.• Special parks: Features of historical and cultural significance.• Conservation-oriented parks: stream valley parks, conservation areas.
Size	Recreational parks: 50 or more acres. Special parks: Varies. Conservation-oriented Parks: Varies.
Possible Activities	Recreational parks: athletic fields, multi-use courts, picnic and playground areas, trails, natural areas. Special parks: agricultural centers, gardens, small conference centers, historic structures, etc. Conservation-oriented Parks: Varies
Location	Where recommended by local area master or sector plans.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Public Park Construction	4	5	8	12	10	8



*Millennium Park,
Chicago, IL*



62. Community Use Urban Park (Major Public Facility)

Definition	<p>A public open space that serves residents and workers in urban neighborhoods and districts. Subcategories include:</p> <ul style="list-style-type: none">• Urban buffer parks.• Neighborhood green.• Community use urban recreational parks.
Size	<p>Urban buffer park: 1/4 acre minimum</p> <p>Neighborhood green: 1/4 acre minimum</p> <p>Community use urban recreational park: 1/10 acre minimum</p>
Possible Activities	<p>Urban buffer park: landscaping, sitting/picnic areas, play equipment, courts and shelters.</p> <p>Neighborhood green: lawn areas, shaded seating and pathways, play areas, skate spot, community garden.</p> <p>Community use urban recreational park: active recreation: sport courts, skate spots, lawn areas, playgrounds, community foraging for food forests.</p>
Location	Where recommended by local area master or sector plans.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Community Use Urban Park Construction	4	5	8	12	10	8

*Town Center Urban Park,
Germantown, MD*





63. Civic Green (Major Public Facility)

Definition	A significant public open space containing a variety of areas for recreation and leisure.
Size	One half acre minimum. Preferable 1 to 2 acres.
Possible Activities	Seating, group gatherings, shopping, dining, organized activities, special events.
Location	Centrally located within a high-density development area.
Design Criteria	<p>Provide formally planned, flexible and programmable open space for public use.</p> <p>Design to include multiple activity zones; include areas for informal gathering, quiet contemplation or large gatherings and special events.</p> <p>Should be surrounded by local streets with high to medium density development, with continuous street walls and activating uses.</p> <p>Include trees for shading, a substantial central lawn as a focal point, multiple options for sitting, including shaded sitting areas and pathways.</p> <p>Incorporate public art.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Civic Green	6	9	15	20	15	6



Perk Park,
Cleveland, OH



64. Recreation Center (Major Public Facility)

Definition	A public building that provides sports, recreational and educational opportunities for the surrounding community.
Size	As determined by facilities plan.
Possible Activities	Sports, public meetings, social events, educational activities.
Location	Where recommended by local area plan.
Design Criteria	Architectural program determined through public outreach communications. Intended to serve master plan or sector plan areas. Accommodates activities for all age groups. Must provide adequate parking and transportation services.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Recreation Center	0.10xD1	0.20xD2	0.30xD3	0.30xD4	0.30xD5	0.40xD6



*Community Recreation Center,
East Oakland, CA*

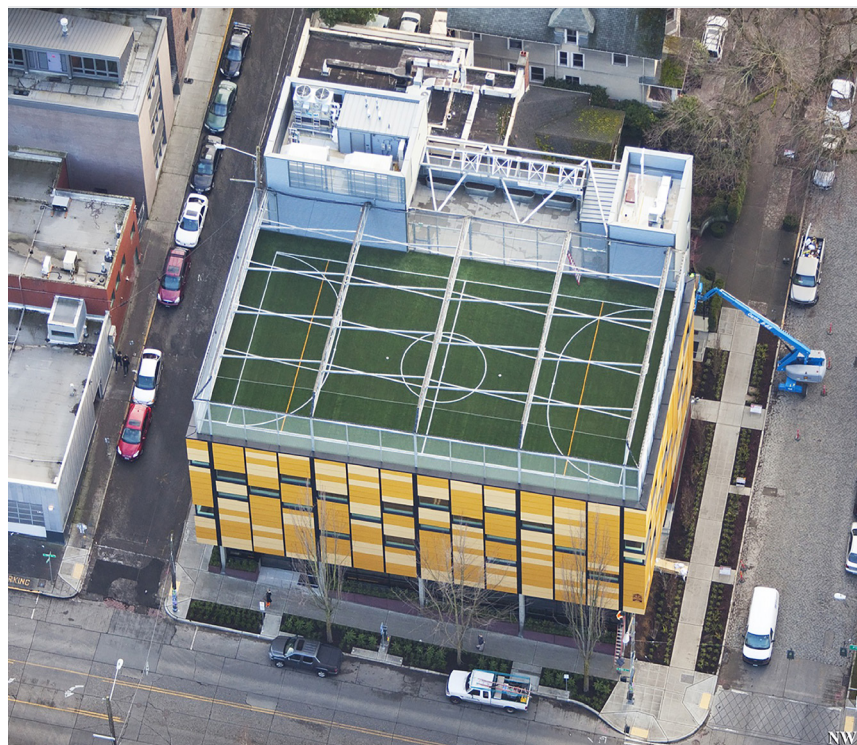


65. School Athletic Field (Major Public Facility)

Definition	Land set aside for construction of publicly accessible athletic fields to be managed by the Montgomery County Public Schools (MCPS).
Size	Subject to program of requirements of Montgomery County Public Schools and the Montgomery County Department of Parks.
Possible Activities	Sports, athletic events.
Location	As determined by Montgomery County Public Schools.
Design Criteria	Subject to requirements of Montgomery County Public Schools and the Montgomery County Department of Parks.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
School Athletic Field	2	20	25	25	25	2



North West School,
Seattle, WA



66. Cultural Center (Major Public Facility)

Definition	A public building that accommodates cultural activities and performances.
Size	Recommended by specific master plan.
Possible Activities	Cultural events, community activities, performances.
Location	Where recommended by a local area plan.
Design Criteria	Intended to serve master plan or sector plan areas. Accommodates activities for all age groups. Must provide adequate parking and transportation services.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Cultural Facility	6	10	14	16	16	16



*Writers Theatre, Glencoe, IL
Studio Gang Architects,
Photos, Hedrich Blessing*



67. Inclusive Recreation Center for Adults (Outdoor)

Definition	An outdoor setting that provides inclusive recreation opportunities for those with disabilities and functions as a center for social interaction, physical fitness and emotional well being.
Size	3,000 square feet
Possible Activities	Sports, social events, educational activities.
Location	Urban or suburban residential or mixed-use environments.
Design Criteria	<p>Accommodates activities for young adults, adults and seniors who require adapted recreational exercise and fitness programs.</p> <p>The center should provide for a minimum of 10 physical activity types (or activity stations). The activity program, form and function should accommodate a full range of disabilities, physical, cognitive and sensory limitations, i.e., mobility restrictions, wheelchair access, hypo- and hyper sensory conditions, etc.</p> <p>Design focus should create a centralized gathering space with group seating and shade and water fountains. Siting should consider prevailing winds, solar orientation and slope to provide optimum access for all groups.</p> <p>A track for running, assisted racing, wheelchair racing, etc. should be provided with seating and shade stations. If possible, the center should adjoin an accessible trail with a natural area to provide a variety of recreational experiences.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Inclusive Recreation Center	2	4	12	25	25	25



Prototype for Norwell Universal Fitness Park, Norwell Outdoor Fitness Company, Copenhagen, Denmark



Examples of Inclusive Outdoor Recreation for Adults



Clockwise from top:

*Norwell Adaptive Fitness Park,
Copenhagen, Denmark*

*Adaptive dirt bike race, Tavi Woods,
Gawton, England*

*Wheelchair tai-chi,
Norwell Adaptive Fitness Station*

*High back, full support swings,
Worcestershire, England*

*Adaptive trail riding,
All terrain wheelchair*





68. Picnic/Seating (Recreation Element)

Definition

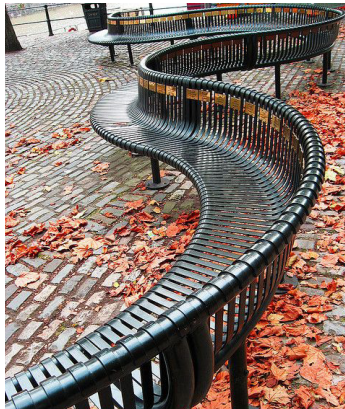
A recreation element consisting of one picnic table with seating or two benches to supplement a recreational facility.

Design Criteria

Locations and quantities to be finalized during regulatory review..Seating should be so located as to enhance the function of a full recreation facility; if a facility requires seating already, this recreation element must provide necessary enhancement to the full facility.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Picnic/Seating	1	1	1.5	3	3	3



*Clockwise from top left:
Serpentine park bench, traditional picnic
table with attached benches, modular
picnic table*



69. Public Art Seating (Recreation Element)

Definition A seating ensemble as a piece or pieces of functional art planned and executed with the intention of being staged in a site-specific physical public domain, accessible to all.

Design Criteria Overall design and details, such as materials, form, size, proportions, media capacity, and ensemble size must be approved by the Planning Board, as to the site-specific purpose and quality of the artwork within the public realm.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Art Seating	5	5	5	5	5	5



Clockwise from top left:

*Jeppe Hein,
Modified social and play bench,
Brooklyn Bridge Park, New York, NY*

*El Poeta public art seating,
Alfredo Häberli for BD Barcelona,
Barcelona, Spain*

*Skateable furniture
Urban seating by Tom Hawes,
London, England*

*Art bench,
Zaha Hadid,
Dallas Museum of Art,
Dallas, TX
Alfred Esso, photo.,*





70. Interactive Outdoor Music and Art (Recreation Element)

Definition A feature within a public open space that allows play with musical sounds, climbable sculptures or interactive fountains.

Design Criteria Overall design scheme and details, including materials, form, size, proportions, media, number of pieces and capacity are critical to the successful integration of art and must be approved by the Planning Board as to the site-specific appropriateness. Installations should promote safe play for all ages and ability types.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Interactive Art	5	5	3	2	4	4



Clockwise from top left:

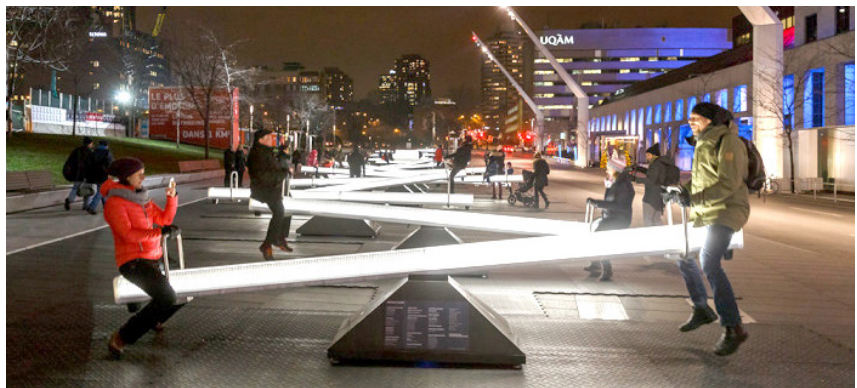
*Musical drums art installation,
Columbia, SC*

*Musical swings temporary art installation,
Montreal, Canada*

*Interactive fountain,
Silver Spring, MD*

*Musical see-saws public art installation,
Montreal, Canada*

*Outdoor Plosive Aerophone Sculpture,
Jan Kochanowski Park, Bydgoszcz, Poland
by Percussion Play*





Examples of Interactive Outdoor Music and Art (Recreation Elements)



From top:

*Dancing on the Drums,
Green Valley Park,
Denver, CO,*

*Interactive art installation
Outdoor LED Paving,
Digital Ambiance,
Lisburn, Northern Ireland*

*Mirror labyrinth,
Jeppe Hein,
Brooklyn Bridge Park,
Brooklyn, NY*



71. Landscape Elements for Toddlers and Children (Recreation Element)

Definition A uniquely defined landscaped, paved or organic space created within a public open space that encourages exploration, interaction and play by toddlers and children.

Design Criteria The space defined should provide a sense of containment with clearly articulated boundaries. Its features--landscaping or paving--should promote curiosity and exploration by young children or toddlers, through visual stimulation, sensory variety, texture or three-dimensional qualities. Materials should be of high quality and used to fulfill an identifiable design scheme.

The area must allow visibility of the child at all times, while providing a visually interesting and attractive elements on its own that is likewise well integrated into the overall public open space.

Minimum 1,500 square feet in area.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Interactive Art	4	3	3	2	4	4



*Clockwise from top left:
Jardin de Plantes,
Nantes, France*

*Sleeping chick,
Flower pot heads,
Sleeping chick and visitors*





Examples of Landscape Elements for Toddlers (Recreation Elements)



Clockwise from top :

*Topiary hedge garden rooms,
Phillipe Perdereau, France*

*Marble stone labyrinth,
Mansfield, MA*

*Garden maze for children,
Deen City Farm,
Wimbleton, England*

*Mars des chaises,
Jardin des Plantes,
Nantes, France*





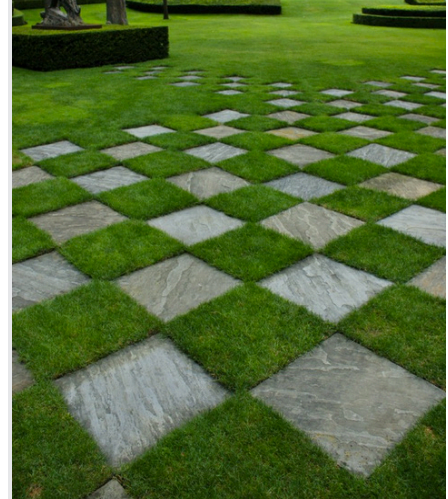
72. Outdoor Game (Recreation Element)

Definition A recreation element, fixed or movable that fits within a spatially defined outdoor area, such as a chess board (life-size or tables) or a ping pong table.

Design Criteria Element must be of durable quality, of suitable scale and materials. Setting must be designed so as to identify the placement for game elements within the overall public open space.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Outdoor Game	0	0	3	3	2	2



From top left:

*Ping pong in Bryant Park,
New York, NY
Photo by Mat Macdermott*

*Grass and slate chessboard,
Chicago, IL*

*Office park open space
game boards,
Prague, Czech Republic
Cigler Marani Architects*





73. Outdoor Fitness Station (Recreation Element)

Definition An outdoor component designed for specific exercise needs, which may be combined with complementary components to provide overall body exercise.

Design Criteria Provide a complete circuit that includes various types of exercise, such as cardiovascular, endurance and strength, and low-impact. Include, units suited for people of limited mobility.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Outdoor Fitness Station	0	2	4	9	9	9



Various types of exercise trail equipment



74. Inclusive Adaptive Recreation Elements (Outdoor)

Definition	A piece of recreation equipment or component that is designed to accommodate a specific activity performed by persons with a range of abilities or disabilities. Intended for children or adults to allow them to engage in a recreational activity along side their able-bodied peers.
Size	Dependent on the manufacturer's specifications.
Possible Activities	Swings, round-about, water arch, wheelchair bicycle.
Location	Urban or suburban residential, or mixed-use environments.
Design Criteria	<p>Accommodates an activity primarily for children; young adults, adults and seniors who use adapted recreational exercise and fitness equipment may also be accommodated.</p> <p>The equipment should provide a specific activity to accommodate a full range of disabilities, physical, cognitive and sensory limitations, i.e., mobility restrictions, wheelchair access, hypo-and hyper sensory conditions. Focus should address learning: language, proprioception and enhance cognitive and physical and spatial awareness.</p> <p>Design focus should integrate the adaptive equipment with the other playground elements and seating. For example, a centralized gathering space should include varied types of group seating, shade and water fountains. Siting should consider prevailing winds, solar orientation and slope to provide optimum access for all groups.</p>

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Inclusive Recreation Center	4	6	6	9	9	9



*Nest adaptive swing,
The Playpark Exeter,
Devon, England*



Examples of Inclusive Adaptive Recreation Elements



Clockwise from top:

*Accessible splashpad,
Taylor's Dream Boundless Playground,
Kreager Park, Fort Wayne, IN
Equipment by Playworld Systems.*

*Cozy cocoon,
Designed for sensory mediation for autism,
Taylor's Dream Boundless Playground,
Kreager Park, Fort Wayne, IN*

*Parent and child cycling,
Duet wheelchair bicycle*

*Healthbeat balance steps,
Equipment by Landscape Structures*

*Revolva round-about,
Wheelchair accessible
with toddler cradle seat,
Wicksteed Playgrounds, Wicksteed, England*





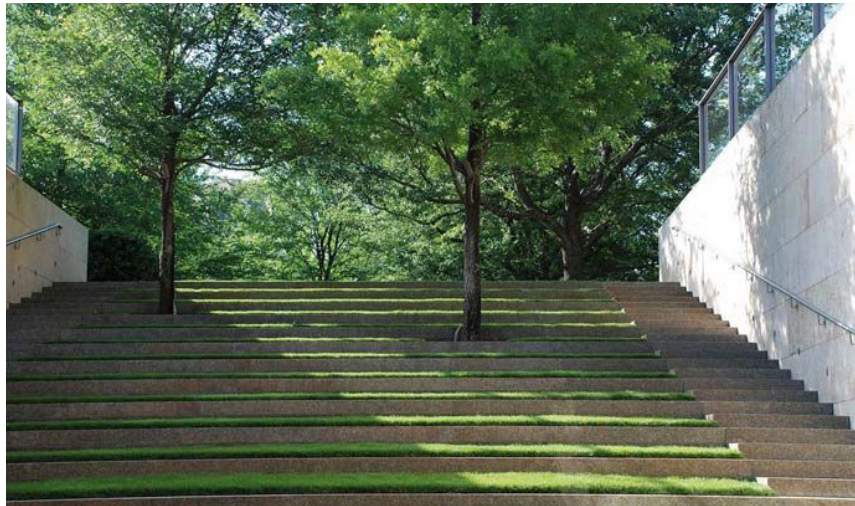
75. Terraced Garden Area (Recreation Element)

Definition An architectural element used to negotiate sloping terrain with a combination of hardscape and landscape.

Design Criteria Provide settings that are suitable for outdoor gatherings and other group activities and community events.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Terraced Garden Area	2	2	2	2	2	2



Examples of outdoor terraced areas suitable for gatherings and other activities.

Top: Nasher Center, Dallas Tx

Right: Garden Amphitheater, Stone Forest, IN



76. Stairs, Steps, Railings (Recreation Element)

Definition

Architectural elements designed to provide opportunities for physical activity or create areas for people to gather both indoors and outdoors.

Design Criteria

Consider utilizing publicly accessible elements, such as stairs, steps, ramps or other building elements, that could be designed to accommodate both utilitarian and social functions.

Integrate elements that can accommodate people with disabilities.

These components will be more suitable for developments of a more public nature, such as community facilities or major public facilities.

Supply Values

Stairs, Steps, Railings	Tots	Children	Teens	Young Adults	Adults	Seniors
Architectural Elements	0	3	4	5	5	4



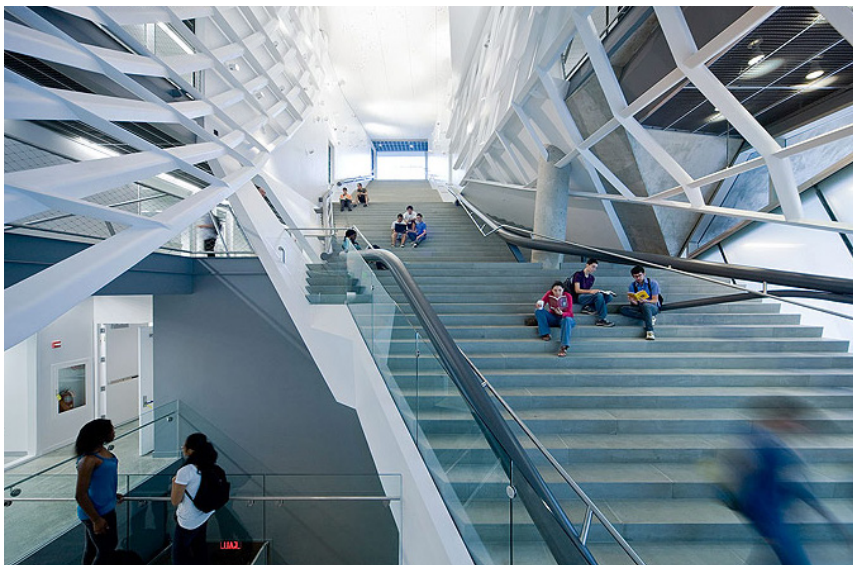
Examples of indoor and outdoor stair areas designed to function as social spaces

Clockwise from top left:

*Terraced Plaza, Kyushu University,
Fukuoka Prefecture, Japan*

*Sturgis Public Charter School,
Barnstable, MA
Studio G Architects*

*Cooper Union,
New York, NY*





77. Grilling Area (Recreation Element)

Definition	An outdoor area with cooking grills.
Design Criteria	Suitable for multifamily residential projects. Include seating areas or locate where adjacent seating is available.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Grilling Area	0	0	2	6	6	5



Grilling areas in new multifamily developments



78. Outdoor Performance Setting or Stage (Recreation Element)

Definition A stage or a band shell that adjoins an open grassy area or a public space that may be used for performances.

Location Component should be sited for optimal solar orientation for daytime performances.
Facility should include sound and lighting systems.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Outdoor Performance Setting or Stage	2	5	4	4	6	6

*Outdoor theater,
International Rosa Test Garden,
Portland, OR*



*Band shell, Myriad Botanical Gardens,
Oklahoma City, OK*



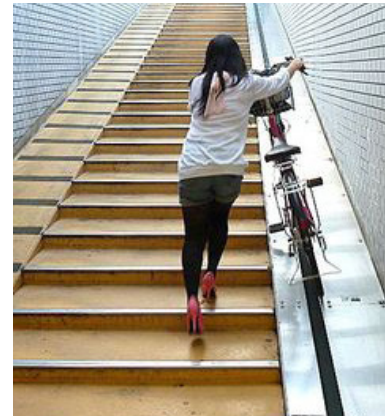


79. Bicycle Wheel Ramp (Recreation Element)

Definition A narrow ramp or channel installed alongside a staircase to allow a cyclist to roll a bicycle up and down steps, improving ease of access.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Bicycle Wheel Ramp	0	0	1	2	2	1



Wheel ramps on a variety of public stair types



80. Bicycle Support Station (Recreation Element)

Definition An outdoor repair kiosk containing tools for bike repairs.

Design Criteria May be located on bicycle trails or on public or private streets. May be used indoors as part of a bicycle repair room or area.

Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
Bicycle Support Station	0	0	3	3	3	3



Examples of bicycle repair stations and details



Black Hills Regional Park, Clarksburg, MD

Chapter 9:

Specifications for Public Facilities



9.1 Standards for Public Recreation Facilities

Public recreation facilities provided through private residential development and sited on publicly-owned land must be designed and constructed to public facilities standards. The Montgomery County Department of Parks maintains a library of standards and specifications for the planning, design and construction of all types of Montgomery Parks facilities. These standards must be employed in the design and siting of recreational amenities located on publicly-owned land.

9.1.1 Department of Parks Facilities

Proposals that include the design and construction of a park, trail or facility dedicated to the Department of Parks are subject to specific procedures, including permitting and construction requirements.

Department of Parks General Information

1. [Montgomery Parks Planning and Design Activities Flow Chart](#)
2. [Montgomery Parks Design Guidelines](#)
3. [Park Classification and Facilities Selections](#)

Department of Parks Design Guidelines

1. [Introduction](#)
2. [Outline of Design Guidelines](#)
3. [Design Guidelines: Facilities](#)

Department of Parks Design Standards

1. [Department of Parks Construction Specifications](#)
2. [Department of Parks Standard Details](#)

Department of Parks Planting Guidelines

1. [Department of Parks Planting Requirements for Parkland](#)
2. [Department of Parks Recommended Plant Lists](#)

Department of Parks Access

1. [Department of Parks Parking Table](#)
2. [Department of Parks Road and Parking Lot Requirements](#)

9.1.2 Useful References

New York City Design Guidelines

Nature Play Design Guidelines



Clockwise from top left::

Family at music park, Bydgoszcz, Poland

Sculpture play park, New York City, NY

*Urban lawn,
Montgomery County, MD*

*South Street Seaport dog run,
New York, NY*

*Teen gathering, outdoor grill,
Fairfax, VA*

MONTGOMERY COUNTY PLANNING BOARD'S
RECREATION GUIDELINES



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10.1 Table of Definitions

10.1 Definitions of Recreation Facilities		
	Facility Type	Definition <i>Shading denotes new facilities types</i>
	10.1.1 ACTIVE CONNECTIONS	
1	Pedestrian Connection or Trail	A pedestrian connection, either a walking path or a hiking trail that provides opportunities to interact with nature or a path system internal to a project site. A nature trail may be located on private property as part of a residential development or on public property as part of a regional trail system, may be located within Category I Conservation Easements.
2	Heart Smart Trail	A hard surface, level path that is one-mile in length or less. Bronze medallions are often embedded in the path every 1/10 of a mile so walkers can keep track of the distance they have traveled.
3	Fitness Trail	An outdoor exercise system installed along a walking or a jogging trail, containing instruction signs and exercise equipment designed for the novice or conditioned athlete. The trail length for a 10-station fitness system is between 1/4 mile to one-mile long.
4	Pedestrian Bridge	A footbridge (also called a pedestrian bridge, pedestrian overpass or pedestrian over-crossing) designed for pedestrians and in some cases cyclists, animal traffic and horse riders instead of vehicular traffic.
	10.1.2 BICYCLE FACILITIES	
5	Bikeways	Dedicated bicycle routes: shared use paths, separated lanes and other master-planned bikeways, as well as intersection improvements.
6	Bicycle Repair Room (indoor)	An indoor space equipped for extensive bicycle repair.
7	Bicycle Parking Garage	A secure, 24-hour indoor parking facility that may include lockers, restrooms and bicycle repair facilities.
	10.1.3 DOG FACILITIES	
8	Dog Park	A contained public area, usually with seating and shade, where dogs are allowed to run off-leash while supervised.
9	Dog Run	A gated area in which dogs may run off-leash, which may be located outdoors, on a building roof or indoors with appropriate ventilation.
10	Dog Cleaning Station	A self-service dog washing or grooming facility.
	10.1.4 COMMUNITY FACILITIES	
11	Indoor Community Space	A multipurpose facility sized to accommodate the proposed community, with a variety of rooms for social and civic activities.
12	Performance Space (indoor)	An indoor visual and auditory setting for live performance, varying in scale and context for planned or impromptu entertainment.
13	Indoor Gymnasium or Exercise Room	A gymnasium with hard surface resilient flooring to accommodate exercise classes, basketball, volleyball, aerobics and fitness activities.
14	Adaptive Sensory Gymnasium (Indoor)	A small gymnasium organized for structured, active sensory play to assist development of sensory, communication, gross and fine motor skills. Includes sensory equipment designed to provide proprioceptive and vestibular sensory input.
15	Yoga Room	An indoor room with natural light designed for yoga and meditation.
16	Racquetball/Handball/Squash	A court with four walls that accommodates two to four players.
17	Futsal Court	An indoor, hard-surface court to provide for a modified form of soccer.
18	Indoor Fitness Room	An indoor exercise facility designed to accommodate fitness equipment such as aerobic stations, weight training stations, treadmills.



10.1 Definitions of Recreation Facilities

Facility Type		Definition	<i>Shading denotes new facilities types</i>
OPEN LAWN AREAS			
19	Open Lawn Grass Area - Small (5,000 sf)	An open, level grass area to accommodate several play or sport activities for urban or suburban residential or mixed-use communities.	
20	Open Lawn Grass Area - Large (10,000 sf)	An open, level grass area to accommodate simultaneous play for a number of varied sport activities for an urban or suburban residential or mixed-use communities	
21	Open Lawn Grass Area - Urban (2,000 sf)	An open, level grass area to accommodate play or sport activity for a high density residential or mixed-use community within an urban area.	
PASSIVE OUTDOOR RECREATION			
22	Natural Area	A substantial area of natural preserve, providing exposure to nature where access is possible without formal paths.	
23	Renovated Stream or Naturalized Area	A natural setting with impaired streams that may be renovated to provide cleaner water, stable banks and improved habitat for aquatic life and wildlife while attempting to mimic natural conditions.	
24	Community Garden	Garden plots reserved for residents or community members.	
25	Ornamental Garden or Sculpture Garden	An outdoor garden dedicated to the presentation of sculpture, using durable materials permanently sited within landscaped surroundings.	
CHILD PLAY AREAS			
26	Playground (Age 2-5) [Tot Lot]	A basic facility with play features to support five different activities for tots and small children.	
27	Playground (Age 5-12) [Play Area]	A basic facility with play features to support five different activities geared to children and preteens.	
28	Playground (Age 2-12) [Multi-age Play Area]	A large facility with play features to support 10 different activities for tots, children and teens.	
29	Playground: Inclusive Recreation	An recreation facility featuring assistive equipment and intervention technology to provide opportunity for children with disabilities to participate in sports or recreation alongside non-disabled peers.	
URBAN RESIDENTIAL AMENITIES			
30	Resident Lounge	Interior community space with furnishings and recreational amenities.	
31	Screening Room	A room with lounge seating and a large screen for viewing films and hosting entertainment events.	
32	Interior Courtyard, Garden or Lawn	An outdoor open space contained within the building or adjoining the building with seating, landscaping, visual amenities and opportunities for social engagement and group activities.	
33	Multi-purpose Lobby Area	A spacious multi-use entrance area with ample seating and amenities that offers opportunity for groups of residents and visitors for relaxing, socializing or dining.	
34	Internet Cafe	A lounge or work area outfitted with WiFi and business services, featuring attractive seating types, lighting levels and work surfaces.	
35	Rooftop Amenities	Recreational amenities located on the roof of a high-rise or a mid-rise residential building that may include an ornamental pool, lap pool, deck, lounge seating with adequate shade.	
36	Community Kitchen	An indoor community cooking area with adjoining entertainment space.	



10.1 Definitions of Recreation Facilities

	Facility Type	Definition	<i>Shading denotes new facilities types</i>
	URBAN FORMAL SPACE		
37	Urban Plaza	An open space for public use defined or formed by surrounding buildings and streets, often featuring walkways, trees and shrubs, places to sit, and sometimes shops or vendor station.	
38	Through-Block Connection	A public space, with landscaping, special paving or seating, formed by surrounding buildings, that provides an attractive pedestrian route through an urban block to connect two or more public areas.	
39	Neighborhood Green	An open space for public use that provides informal recreation primarily for residential areas, but also mixed-use communities..	
40	Pocket Green	A small scale urban open space tucked into urban fabric (also referred to as a pocket park, vest pocket or vesty park)..	
	SPORTS COURTS OUTDOOR		
41	Basketball – Full Court	A paved, full court for basketball that may also accommodate several other activities, such as tricycling, skateboarding, roller skating; includes two basketball standards.	
42	Basketball – Half Court	A paved, half-court for basketball that may also accommodate several other activities, such as skateboarding, roller skating; includes one basketball standard.	
43	Basketball Court - Adaptive Use	A space for basketball, outdoor or indoor, to accommodate players with disabilities such as wheelchair basketball, or a non-competitive, inclusive individual skills game with stations used in sequential order..	
44	Tennis Court	A firm surface rectangular court, usually of grass, clay or hard material, accommodating singles and doubles tennis.	
45	Tennis Court - Adaptive Use	A court for tennis, outdoor or indoor, to accommodate players with disabilities: wheelchair tennis, or a non-competitive, inclusive individual skills game with stations.	
46	Volleyball or Badminton	A level, open grassy area or a sand base area with poles to support a central net for volleyball. (outdoor)	
47	Multipurpose Court	A paved, shaded outdoor court to accommodate basketball and other sports court activities such as roller skating, skateboarding, volleyball, futsal, hockey, paddle tennis, shuffleboard, hopscotch, four square, kickball, badminton.	
	SPORTS FIELDS		
48	Softball/ Baseball Diamond - Large	A regulation or practice softball or baseball field on turf grass surface and featuring three bases, home plate, side foul lines and outfield area.	
49	Softball/ Baseball Diamond - Small	A junior practice softball or pony league field on turf grass surface with back stops that is smaller in base distance and overall field dimensions than a regulation field.	
50	Soccer Rectangle – Small	A field measuring 75 feet by 150 feet on turf grass with two permanent goals to accommodate soccer, lacrosse or football.	
51	Soccer Rectangle – Medium	A field measuring 120 feet by 180 feet on turf grass with two permanent goals to accommodate soccer, lacrosse or football.	
52	Soccer Rectangle – Large	A field measuring 150 feet by 250 feet on turf grass with two permanent goals to accommodate soccer, lacrosse or football.	



10.1 Definitions of Recreation Facilities

	Facility Type	Definition	<i>Shading denotes new facilities types</i>
	SWIMMING SPORTS		
53	Swimming Pool - Outdoor	A swimming pool with a spacious deck for community use. Swimming pools must conform to Montgomery County Department of Health standards.	
54	Swimming Pool - Indoor	A swimming pool for the year-round community use. Swimming pools must conform to Montgomery County Department of Health standards.	
55	Wading Pool	A small, shallow pool with surrounding deck for the use of small children. Swimming pools must conform to Montgomery County Department of Health standards.	
56	Lap Pool	A rectangular shaped pool, with narrow lanes and extended length for lap swimming. Swimming pools must conform to Montgomery County Department of Health standards.	
57	Lounge Pool	A shallow pool for relaxation or socializing with built-in or movable furnishings extending into the water.	
	ADVENTURE SPORTS		
58	Rock Climbing	A prepared vertical surface for rock climbing (indoor or outdoor); a horizontal surface may accommodate bouldering.	
59	Skate Park	A public open space, ranging from 6,000 to 10,000 square feet in size, featuring a diverse arrangement of ramps and structures..	
60	Skate Spot	A skate spot is a smaller facility ranging from 2,500 to 5,000 square feet in size, featuring a small number of structures arranged for sequential use in a single skate run.	
	MAJOR PUBLIC FACILITIES		
61	Public Park Construction (Major Public Facility)	A significant acreage of land set aside as part of a development for construction of a public park. Public park facilities must follow Department of Parks construction standards.	
62	Community Use Urban Park (Major Public Facility)	A public open space that is at least .10 acres in size to provide active recreation facilities such as sports courts, athletic fields, playgrounds, etc. Public park facilities must utilize the Department of Parks construction standards.	
63	Civic Green (Major Public Facility)	A public open space, located strategically within a community, that is at least ½ acre in size that contains both formally planned and adaptable open space for social and civic activities. Public park facilities must utilize the Department of Parks construction standards.	
64	Recreation Center (Major Public Facility)	A building and grounds open to the public to provide facilities for sports, activities, public meetings and social events for the community..	
65	School Athletic Field (Major Public Facility)	A significant acreage of land set aside for construction of athletic fields managed by the Montgomery County Public Schools (MCPS) and available for public use. Must be constructed to MCPS standards.	
66	Cultural Facility (Major Public Facility)	A building dedicated to public use that accommodates a variety cultural activities and performances.	
67	Inclusive Recreation Center for Adults (Outdoor)	An outdoor setting that provides inclusive recreation opportunities for those with disabilities and functions as a center for social interaction, physical fitness and emotional well being	



10.1 Definitions of Recreation Facilities

Facility Type		Definition	<i>Shading denotes new facilities types</i>
	RECREATION ELEMENTS		
68	Picnic/Seating (Element)	A recreation element consisting of one picnic table or two benches that supplements a full recreational facility in its siting, location and orientation to the activities and intent of the full recreation facility.	
69	Public Art Seating for Active Multi-Use	A seating ensemble as a piece or pieces of functional art planned and executed with the intention of being staged in a site-specific physical public domain, accessible to all.	
70	Interactive Outdoor Music and Art (Element)	Functional interactive features that create the identity of a public open space and allow play or interaction with musical instruments, musical play equipment, artistic fountains, interactive lighting or sculptures for climbing or swinging, dancing or activating public presence.	
71	Landscape Elements for Toddlers and Children	A uniquely defined landscaped, paved or organic space, with articulated boundaries, that is created within an approved public open space that encourages exploration, interaction and play by toddlers and children.	
72	Outdoor Game (Element)	A recreation element, fixed or movable, that fits within a spatially defined outdoor area such as a chess boards, a ping pong table, etc.	
73	Outdoor Fitness Station (Element)	An outdoor exercise component that is designed for a variety of exercise needs, such as cardiovascular workout, endurance and strength training and low-impact exercise.	
74	Inclusive Adaptive Recreation Elements	A piece of recreation equipment or component that is designed to accommodate a specific activity performed by persons with a range of abilities or disabilities. Intended for children or adults to allow them to engage in a recreational activity along side their able bodied peers	
75	Terraced Garden Area (Element)	Architectural elements used to mediate sloping terrain with hardscape and landscaping to provide spacious settings for social gatherings, presentations, performance art, interactive audience events, such as music or other participatory activities.	
76	Stairs, Steps and Railings (Element)	Attractive architectural elements that provide visible opportunity for physical and/or interactive activity outside or inside the building; these stairs, steps, ramps or a perimeter activity element can supplement a building's recreational facilities.	
77	Grilling Area (Element)	An outdoor amenity area featuring cooking grills, seating and shade for use by a residential community.	
78	Performance Setting or Stage (Element)	An outdoor stage or a band shell that adjoins an open grass area or a public open space to be used for performances. The setting should include sound and lighting, and be sited for optimal solar orientation for daytime performances and optimal acoustical transmission.	
79	Bicycle Wheel Ramp (Element)	A narrow ramp installed alongside a staircase or outdoor steps to allow a cyclist to roll a bicycle up or down steps and increases accessibility.	
80	Bicycle Support Station (Element)	An outdoor repair kiosk containing tools for repairs. Stations may be located on bike trails or on public or private streets. Stations may be installed as part of a recreation facility ,such as a shared use path, recreation center or outdoor recreation facility.	

10.2 Recreation Demand Methodology

10.2.1 Introduction

The recreation demand methodology used in the 2017 Recreation Guidelines provides a standard measure for estimating the recreational demand of the future population in a proposed residential development project. It is half the supply and demand equation determining the adequacy of proposed recreational amenities for new residential development. The 2017 Guidelines address the changed needs from the suburban greenfield detached housing prevalent in the 1980s to today's trend of higher-density, mixed-use and in-fill development.

Revision of the original guidelines includes updating the recreational demand factors adopted in 1992. The new guidelines' methodology for estimating recreational demand retains the premise that demand varies by the person's age and the type of housing. The 2017 Guidelines adopt a new approach, focusing the demand analysis on recently constructed housing between 2005 and 2014 to more accurately reflect the recreational demand anticipated from typically higher-density development in contrast to the earlier decades of large-lot, detached housing characterizing suburban growth.

The estimated recreational demand is calculated by multiplying the age distribution of residents living in recently constructed housing by the recreational conversion factors specific to age group and housing type. The recreation demand factors are calculated for six age groups living in four types of recently constructed housing using demographic data from the U.S. Census Bureau's 2014 American Community Survey.

These factors are part of the web-based, interactive calculator used to balance the estimated recreational demand of the project's future residents against the supply of proposed recreational amenities to determine the adequacy of the recreational facilities for the new residential development. The new interactive web tool is a valuable resource to help developers, the public and planners explore different recreational amenities scenarios to meet the private Recreation Guidelines. The recreational demand factors will be revised every five years and incorporated into the Recreation Guidelines web-based tool to reflect current demographic and housing trends.

10.2.2 Recent Construction, Age Groups, and Housing Types Defined

Estimates of recreational demand are derived from age profiles of Montgomery County residents living in recently constructed housing as a means of predicting recreational demand of future residents in the proposed development. For analysis purposes, "recently constructed" is defined as housing built between 2005 and 2014, a period spanning the housing market slow down attributed to the Great Recession in 2007 and the subsequent resumption of building post-recession.

An estimated 21,400 recently constructed units comprise 5.6 percent of Montgomery County's total occupied housing in 2014. The mix of houses built between 2005 and 2014 compared to all households countywide differs in the proportion of detached houses and high-rise buildings (Figure 1). Most of the recently constructed housing is high-rise with 8,800 units. At 41 percent, the share of recently built high-rise units is more than twice the concentration across the county at 17 percent. Conversely, almost one quarter of recently built houses

are detached homes (5,200) compared to 48 percent (181,800) of households countywide. Recently built townhouses (20 percent, 4,250 homes) and mid-rise units (15 percent, 3,150 households) are proportional to these types countywide (19 percent and 16 percent, respectively)

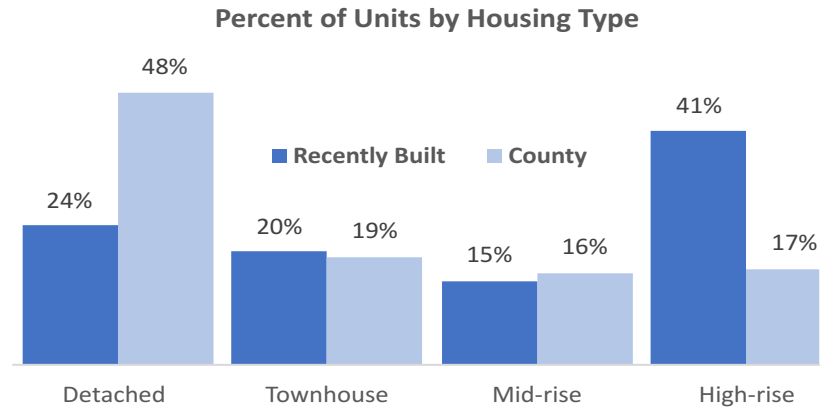


Figure 10.2.1 Comparison of recently built and all county housing units by Housing Type.

Age profiles of Montgomery County residents by the type of housing in which they live serves as the basis for determining recreational demand. Recreational demand is estimated for six age groups living in four housing types, totaling 24 age by structure subcategories. The age categories include tots (0-4), children (5-11), teens (12-17), young adults (18-34), adults (35-64) and seniors (65+).

Table 2.2.1 -- Age Categories

Demand Category	D1	D2	D3	D4	D5	D6
Age Category	Tots	Children	Teens	Y Adults	Adults	Seniors
Age Range	(0-4)	(5-11)	(12-17)	(18-34)	(35-65)	(65+)

Figure 10.2.2 Definitions of Age Categories

A new young adult age group, ages 18 to 34, is introduced in the updated analysis, splitting in half the single age category of adults, 18 to 64 years old, previously used in the 1992 guidelines. The divisions of adult age category used in the 2016 Guidelines address the different recreational interests and housing choices of adults at different life stages.

The four types of housing used in the demand calculations are detached houses, townhouses, mid-rise and high-rise multi-unit structures, as defined in Figure 3. The 2017 guidelines uses a single category for single-family detached housing rather than the three categories based on single-family lot size underlying the 1992 Guidelines. Simplifying the detached housing category incorporates the change in development patterns as Montgomery County has transformed from fast-paced, green-field suburban development of the 1980s to today's trend of higher-density, mixed-use and infill construction.

Housing Type	Description
Detached House	One dwelling unit contained in a detached house
Attached House	Three or more dwelling units in a townhouse building
Mid-rise or Garden Apartment	4 residential stories or less (typically wood frame)
High-rise or Tower Apartment	5 or more residential stories (typically concrete)

Figure 10.2.3 Description of Housing Types

The age distribution of Montgomery County residents living in recently constructed housing by housing type is compiled from the 2010-2014 American Community Survey (ACS), Public Use Microdata Sample (PUMS) 5-year estimate released by the U.S. Census Bureau. PUMS provides contain untabulated records about individual people and housing units, allowing researchers to create custom tables that are not available through standard ACS summary tables. Using PUMS data, it is possible to tabulate recently constructed housing and determine the age distribution of the people living in each of the four housing types, as necessary for the predictive recreation model.

10.2.3 Age Profiles of People Living in Recently Built Housing

Age of People Living in House Built 2005-2014					
Age	Detached	Townhouse	Mid-Rise	High-Rise	
0-4	9.6%	8.7%	10.1%	5.8%	8.4%
5-11	12.5%	8.9%	10.0%	4.1%	9.1%
12-17	12.8%	6.4%	7.8%	1.9%	7.7%
18-34	13.8%	27.6%	39.1%	41.8%	27.9%
35-64	46.3%	44.1%	29.7%	32.0%	39.7%
65+	5.0%	4.3%	3.3%	14.3%	7.2%

Figure 10.2.4 Age distribution of people residing in recently built housing.

Characteristics of people living in recently constructed houses differ from the population countywide and their population traits also vary within types of recently built housing. The age distribution of people living in newly constructed housing and in the overall housing stock frames the differences among the housing types.

The most pronounced differences between recently constructed and countywide housing are evident in detached houses and high-rise buildings. In 2014, about 6 percent of Montgomery's population, 55,000 residents, lived in houses constructed between 2005 and 2014. Figure 10.2.4 shows the age comparison of inhabitants of recently constructed housing and the general population by housing type.

- Larger households are found in recently built detached houses (3.95 persons per household) and high-rises (1.75) than countywide (average household sizes of 3.03 and 1.57, respectively).
- The age distributions in newly constructed and overall housing stock are similar with the exceptions of a higher share of young adults (27.9 percent) and lower percentage of seniors (7.2 percent) in newer housing compared to countywide (respective age groups, 21.3 percent and 12.6 percent).

- Recently constructed, detached houses have a higher percentage of children residents under the age of 18 (35 percent) than do detached houses countywide (25 percent).
- A higher percentage of young adults, ages 18 to 34 (42 percent) live in high-rise structures built between 2005 and 2014 compared to high-rises overall (31 percent).
- A lower percentage of adults age 65 and older live in recently built high-rises than in high-rises countywide (14 percent and 25 percent, respectively).

Detached Housing

Distinct attributes of residents living in recently constructed housing become apparent when comparing these recent movers by the four types of housing. A detailed comparison of the age distribution and the estimated numbers of people living in housing built between 2005 and 2014 with those residents living in countywide housing is shown in Figure 10.2.5 (below).

Most people in recently constructed housing live in detached houses, about 20,600 residents or 38 percent of all people in new housing.

Figure 10.2.5 AGE DISTRIBUTIONS BY HOUSING TYPES - COUNTYWIDE AND RECENTLY BUILT

Countywide Housing						Housing Built 2005-2014				
Age	Detached	TH	MR	HR	Total	Detached	TH	MR	HR	Total
0-4	30,485	16,379	13,432	5,198	65,494	1,980	1,015	733	894	4,622
5-11	54,384	20,626	13,319	4,048	92,377	2,575	1,043	721	625	4,964
12-17	53,257	15,125	8,574	2,890	79,846	2,623	746	565	293	4,227
18-34	86,206	45,638	49,150	31,213	212,207	2,835	3,220	2,823	6,421	15,299
35-64	252,490	84,716	50,410	32,405	420,021	9,528	5,143	2,147	4,916	21,734
65+	74,912	16,744	8,353	24,924	124,933	1,028	500	240	2,197	3,965
Total	551,734	199,228	143,238	100,678	994,878	20,569	11,667	7,229	15,346	54,811
% Total	55.5%	20.0%	14.4%	10.1%	100.0%	37.5%	21.3%	13.2%	28.0%	100.0%
0-4	5.5%	8.2%	9.4%	5.2%	6.6%	9.6%	8.7%	10.1%	5.8%	8.4%
5-11	9.9%	10.4%	9.3%	4.0%	9.3%	12.5%	8.9%	10.0%	4.1%	9.1%
12-17	9.7%	7.6%	6.0%	2.9%	8.0%	12.8%	6.4%	7.8%	1.9%	7.7%
18-34	15.6%	22.9%	34.3%	31.0%	21.3%	13.8%	27.6%	39.1%	41.8%	27.9%
35-64	45.8%	42.5%	35.2%	32.2%	42.2%	46.3%	44.1%	29.1%	32.0%	39.7%
65+	13.6%	8.4%	5.8%	24.8%	12.6%	5.0%	4.3%	3.3%	14.3%	7.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
0-17	25.0%	26.2%	24.7%	12.1%	23.9%	34.9%	24.0%	27.9%	11.8%	25.2%

Figure 10.2.5 Age Distributions by housing types: Comparison of countywide housing supply and recently built housing supply.

Note: Mobile homes, RVs and boats are not included in the recreation demand analysis. With these exclusions, the table does not sum to the total 2014 household population of 996,490.

Source: 2010-2014 American Community Survey 5-year estimate, Public Use Microdata Sample (PUMS), U.S. Census Bureau.

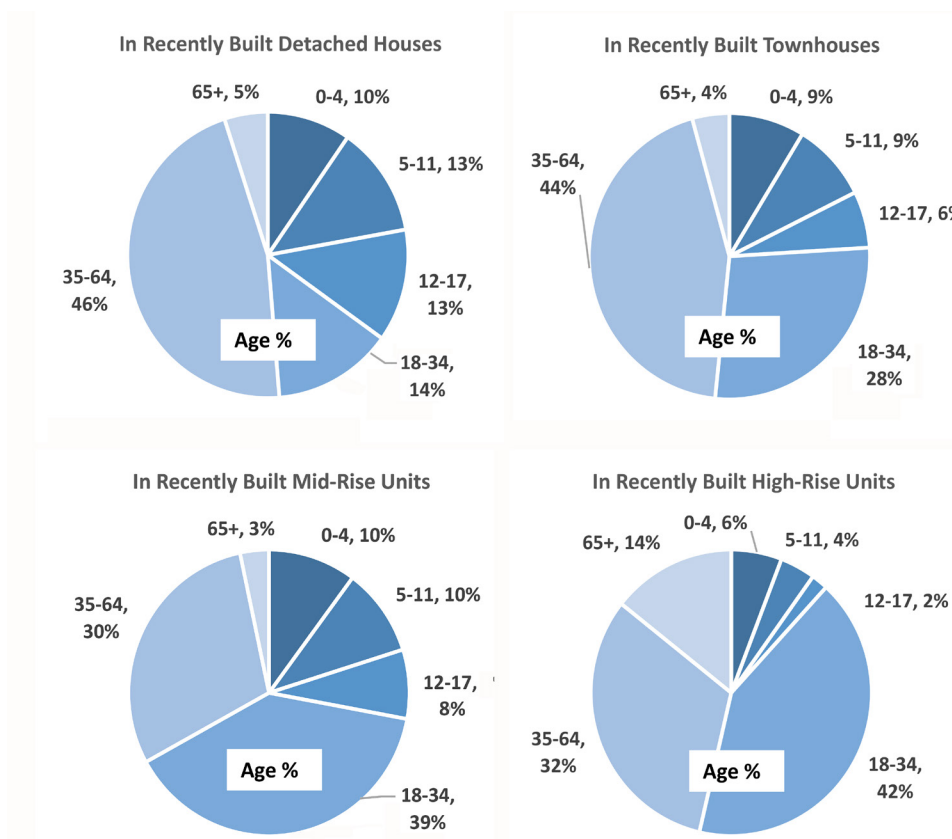


Figure 10.2.6 Age distribution of people residing in recently built housing: detached units, townhouse units, mid-rise units, and high-rise units constructed between 2005-2014.

Source: 2010-2014 American Community Survey 5-Year Estimate, Public Use Microdata Sample (PUMS), U.S. Census Bureau.

Recently Built Detached Housing

- Highest average household size among all housing types is 3.95 persons per detached house.
- Recently built detached housing, typically occupied by families, has the highest concentration of adults age 35 to 64 (46 percent) and children under 18 (35 percent).
- Detached housing accommodates older families with the highest concentration of teenagers, 13 percent.
- Seniors comprise only 5 percent of the detached household population.

Townhouse

About 11,700 people, 1 in 5 people in new housing, live in recently built units.

- Second highest average household size at 2.75 persons per townhouse.
- Residents of townhouses are similar to those in detached houses, but townhouses generate a higher percentage of young adults 18 to 34 (28 percent in townhouses compared to 14 percent in detached homes) and are less likely to have teenagers (6 percent versus 13 percent).
- One quarter are children under age 18, a lower concentration than detached (35 percent) and mid-rise (28 percent) homes. Detached housing serves older families with the highest concentration of teenagers, 13 percent.

Mid-Rise Multi-Unit Housing

Residents in recently constructed mid-rise units make up 13 percent (7,200 people) of the population in recently built housing.

- The average household size is 2.29 persons per mid-rise unit.
- Young adults (39 percent) and children under 12 (20 percent) characterize residents of recently built mid-rise buildings .
- Mid-rise units have the lowest concentration of people age 65 and older (3 percent).

High-Rise Multi-Unit Housing

The second largest group, 15,300 people, live in high-rise units, 28 percent of all inhabitants of recently built housing.

- Recently constructed high-rise units generate the smallest average household size at 1.75 persons per household compared to the other housing types
- Highest share of young adults ages 18 to 34 (42 percent)
- Lowest percentage of children under age 18 (12 percent).
- Less than 2 percent are teenagers, the lowest level among housing types.
- By far, the highest percentage of seniors age 65 and older (14 percent)

10.2.4 Calculating Recreational Demand

Recreational demand is part of the supply and demand model assessing the adequacy of proposed recreational amenities accompanying a new residential development project. Recreational demand is translated into a point system representing the effective number of users by age and housing type for the adequacy analysis. Recreational demand points are calculated as the product of the population yield per 100 units standardized relative to the age distribution of people living in all types of recently constructed housing and weighted by recreational demand conversion factors specific to age groups and housing types.

The updated demand points for the 2017 guidelines are used in the section of the web-based spreadsheet balancing the supply of recreational amenities of the proposed development and the estimated demand of future residents. The 2017 Guidelines provides a predictable method for recreational assessment and retains the 1992 guidelines' methodology of balancing recreation supply and demand.

Standardized Age Distribution by Housing Type

The age distribution of residents living in recently built housing is standardized as the expected population yield per 100 dwelling units for each age group by housing type as a basis for calculating recreational demand. Population yield factors are a

product of the residents' age distribution characterizing the type of housing and the estimated number of people living in 100 units of that housing type.

Using a townhouse yield as an example, an estimated 275 people live in 100 townhouses based on the average household size of 2.75 people per townhouse. The estimated population yield of young adults per 100 recently built townhouses is the fractional share of 18 to 34-year-olds, 0.276, multiplied by 275 people, the estimated residents in the 100 townhouses. The resulting population yield is 76 young adults per 100 townhouse units.

The population yield factor, the estimated number of people per 100 units, is calculated for each of the six age groups by the four housing types. The results are shown in Figure 10.2.7 (below).

The population yield estimates are multiplied by the recreational demand conversion factors (described in the next section) to calculate the recreational demand points used in the web-based spreadsheet modeling recreational supply and demand to determine adequacy of proposed development.

POPULATION YIELD PER 100 UNITS	Housing Built 2005-2014				
	Detached	Townhouse	Mid-Rise	High-Rise	Recent Build
Average Household Size	3.95	2.75	2.29	1.75	2.56
Age Distribution					
0-4	9.6%	8.7%	10.1%	5.8%	8.4%
5-11	12.5%	8.9%	10.0%	4.1%	9.1%
12-17	12.8%	6.4%	7.8%	1.9%	7.7%
18-34	13.8%	27.6%	39.1%	41.8%	27.9%
35-64	46.3%	44.1%	29.7%	32.0%	39.7%
65+	5.0%	4.3%	3.3%	14.3%	7.2%
Population per 100 Units	395	275	229	175	256
0-4	38	24	23	10	22
5-11	49	25	23	7	23
12-17	50	18	18	3	20
18-34	54	76	89	73	71
35-64	183	121	68	56	102
65+	20	12	8	25	19

Source: 2010-2014 American Community Survey 5-year estimate, Public Use Microdata Sample (PUMS), U.S. Census Bureau.

Figure 10.2.7 Age distribution per 100 dwelling units for people residing in recently built housing: detached units, townhouse units, mid-rise units, and high-rise units constructed between 2005-2014.

10.3 Conversion Factors

Estimating recreational demand assumes demand varies by the person's age and the density of housing as delineated by housing type. The type of housing is expected to have the greatest impact on demand, as recreational interests are assumed to be relatively common within an age group, but housing type may affect delivery of the activity.

10.3.1 Weighted Recreational Demand by Age and Housing Type

These demand assumptions are captured in the assignment of weighted conversion factors proportional to how much recreational demand occurs outside of the household's purview for each age group.

The lower the conversion factor, the more likely recreational activity occurs on

person's property, either inside the household or in a private yard, if available, or demand may be met through organized sports or commercial venues. A higher factor reflects recreational demand met outside the private household in the surrounding public space of the development.

For example, a substantial fraction of the recreational needs of a single-family detached household may be met within the private yard or participation in youth sport leagues. Thus, the detached housing type is given the lowest range of recreation conversion factors, from 0.4 to 0.7 across the age groups.

The recreational needs of those living in high-rise units are mostly met outside of the comparatively smaller, private living space and a conversion factor of 1 is assigned for all age groups. The recreational conversion factors used in the demand analysis are reported in Figure 10.2.8 (below).

The conversion factors representing the recreational demand of an age group in a specific housing type are applied to the distribution of Montgomery County's population by age group and housing type to calculate recreational demand by age group and type of housing.

Recreational Demand Conversion Factors						
Housing Types Built Between 2005 -2014	Age Groups					
	D1	D2	D3	D4	D5	D6
	Tots	Children	Teens	Young Adults	Adults	Seniors
	0-4	5-11	12-17	18-34	35-64	65+
Detached	0.4	0.7	0.7	0.5	0.4	0.7
Townhouse	0.6	0.9	0.9	0.7	0.6	0.9
Mid-rise	0.7	1	1	0.8	0.7	1
High-rise	1	1	1	1	1	1

Figure 10.2.8 Recreational conversion factors.

The recreational demand conversion factors were developed by Montgomery County Planning and Parks staff based on subjective analysis of recreational patterns of Montgomery County residents described in 2012 Public Recreation and Open Space Plan and augmented by national trends reported in a 2016 statistical study by the Sports and Fitness Industry Association.

10.3.2 Calculating Recreational Demand

The estimated recreational demand is the product of the population yield per 100 dwelling units (Figure 10.2.7) weighted by the conversion factors representing recreational demand specific to age group and housing type (Figure 10.2.8). For example, the recreational demand points associated with young adults living in mid-rise units, 71 points, is calculated by multiplying the estimated 89 young adults per 100 mid-rise units shown in the yield table (Figure 10.2.6) by the recreational demand conversion fraction of 0.8 associated with young adults in mid-rise units (Figure 10.2.8, above).

Figure 10.2.9 below summarizes the recreational demand points per 100 dwelling units for six age groups across four housing types. The factors characterize the people living in households constructed between 2005 and 2014. The demand points represent the effective number of users by age and housing type

updated for the 2016 Guidelines. The demand points are applied in the web-based spreadsheet's methodology of balancing recreation supply and demand to determine adequacy of the proposed recreational amenities of the new residential development.

Recreational demand factors based on the age distribution by housing type will be updated every 5 years using the latest American Community Survey data released from the U.S. Census Bureau. The revised factors will be incorporated into the Recreational Guidelines' web tool, providing updated recreational demand levels reflecting demographic and housing trends.

Recreational Demand Points						
Housing Types Built Between 2005 -2014	Age Groups					
	D1	D2	D3	D4	D5	D6
	Tots	Children	Teens	Young Adults	Adults	Seniors
	0-4	5-11	12-17	18-34	35-64	65+
Detached	15	35	35	27	73	14
Townhouse	14	22	16	53	73	11
Mid-rise	16	23	18	71	48	8
High-rise	10	7	3	73	56	25

10.4 Custom Facility Calculations

10.4.1 Questionnaire

10.4.1 Custom Recreation Facilities Proposal -- Evaluation Levels	
Descriptive Information	1. Name of project and recreation facility
	2. Description of recreation facility
	3. Is the facility Intended for public access?
	A. Yes
	B. No
	4. Is facility co-located with a stormwater management facility?
	A. Yes
	B. No
Base Value Determination Questions	5. What is the size of this facility?
	A. Less than 250 square feet
	B. 250 - 499 square feet
	C. 500 - 1,999 square feet
	D. 2,000 - 19,999 square feet
	E. Larger than 20,000 square feet
	6. Which choice best describes this facility?
	A. Indoors
	B. Natural - Untreated
	C. Outdoors - Hardscaped (paved)
	D. Outdoors - Landscaped
	7. Which choice best describes the lighting for this facility?
	A. Facility has lighting for users and spectators
	B. Facility has outdoor accent lighting only
	C. Facility has no lighting
	8. Does this facility provide recreational opportunity for tots with:
A. Minimal level of supervision	
B. Moderate level of supervision	
C. High level of supervision	
Base Value Modifier Questions	9. Does this facility encourage physical or aerobic exercise?
	A. Yes
	B. No
	10. Is this facility suitable for teens?
	A. Yes
B. No	

10.4.2 Questionnaire

The custom facility tool evaluates the questions in three steps. It first asks a series of basic questions establishing the general description of the proposed facility (Section 10.5.2.1, below). Then a series of tests determine a base value (Section 10.5.2.2, below) and the final series of tests modifies the base values (Section 10.5.2.3).

10.4.3 Descriptive Questions

It first asks a series of basic questions, establishing the general description of the proposed. The first four questions do not affect the valuation of the proposed recreational facility. These questions are simply descriptive.

10.4.4 Base Value Determination

The second set of questions establishes the base value for a custom facility.

CUSTOM FACILITY DETERMINATION EVALUATION														
	IF	Text Selection	ONLY	NULL	AND	AND	/OR	NOT	THEN		SUPPLY CREDIT			
									Tots	Children	Teens	Y-Adults	Adults	Srs
5 Facility Size														
	A	< 250 sf	5B						1	1	1	1	1	1
	B	250 - 499 sf						6B	2	2	2	3	3	3
	B	250 - 499 sf			6B			7B	2	2	2	3	3	3
	C	500 - 1,999 sf			6B				3	5	5	7	7	5
	D	2,000 - 19,999 sf			6B				3	5	5	7	7	5
	D	2,000 - 19,999 sf				7A / 8B		6B	9	9	9	9	9	9
	E	> 20,000 sf			6B				9	9	9	9	9	9
	E	> 20,000 sf	5E						9	9	9	9	9	9
6 Materials														
	A	Indoors							0	0	5	0	0	0
	B	Natural- Untreated		6B	5B				2	2	2	3	3	3
	B	Natural- Untreated			5B			7B	2	2	2	3	3	3
	B	Natural - Untreated			5C				3	5	5	7	7	5
	B	Natural - Untreated			5D				3	5	5	7	7	5
	B	Natural- Untreated			5E				9	9	9	9	9	9
	C	Outdoor Hardscape		6B	5D	7A / 8B			9	9	9	9	9	9
	D	Outdoor Landscape							0	0	0	0	0	0
7 Lighting														
	A	For Users & Spectators			5D	7A / 8B		6B	9	9	9	9	9	9
	B	Outdoor Accent		7B	5B	6B			2	2	2	3	3	3
	C	No Lighting							0	0	0	0	0	0
8 Tot Supv														
	C	High Supervision	8C						9	0	0	0	0	0

10.4.5 Value Modifiers for Custom Facilities

The third level of questions modifies the Custom Facility base values.

CUSTOM FACILITY MODIFIER EVALUATION														
	IF	Text Answer	ONLY	NULL	AND	AND	OR	NOT	THEN			SUPPLY CREDIT		
									Tots	Children	Teens	Young Adults	Adults	Seniors
8 Tot Supv														
	A	Minimum							0	0	0	0	0	0
	B	Moderate	8B						-2	0	0	0	0	0
	C	High	8C						-5	0	0	0	0	0
9 Aerobic Act														
	A	Yes	9A						0	2	2	2	2	2
	B	No							0	0	0	0	0	0
10 Teens														
	A	Yes	10A						0	0	5	0	0	0
	B	No							0	0	0	0	0	0

10.5 Walk Shed Determination Methodology

In order to determine what existing public recreational facilities a proposed project can take credit for, a half-mile walk shed is used. A Walk shed depicts a polygon covering the area an adult could walk from a starting point on a trail, sidewalk or another safe pedestrian route. This polygon is further expanded by 200 feet.

Montgomery Planning staff has created a walk shed web service that creates these polygons on demand for the web tool. This web service uses road centerlines at the neighborhood level for those routes determined to be safe and accessible to pedestrians. It adds road centerlines for higher capacity level road categories that provide sidewalks.

In addition, the tool incorporates information layers for M-NCPPC public parks, trails, Montgomery County Public Schools, Montgomery County Department of Recreation facilities, sidewalks, and retail center walkways are also added as walkable links. This network of walkable links is published as a network web-service on the agency's GIS server and is available for use outside the web tool itself.

Web service URL: [http://mcatlas.org/arcgis3/rest/tools/walk shed/gpservice/walk shed/execute](http://mcatlas.org/arcgis3/rest/tools/walk%20shed/gpservice/walkshed/execute)

It is expected that the user of the Recreation Guidelines would use our web tool to arrive at the walk shed and resulting off site facility inventory. This web service can be incorporated into other GIS websites though by way of the ESRI javascript API.

Finally, a user could simply open the service webpage and execute a service area query manually. To use this service manually, a user must enter a starting location using Maryland State Plane Feet coordinates into the "features":[] box and hit the execute button at the bottom of the service web page.

See example, Figure 10.5.1, opposite.

10.6 Acknowledgments



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MONTGOMERY COUNTY PLANNING BOARD

RECREATION GUIDELINES

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