

# SMART TOOLS FOR RECREATION PLANNING

## EDUCATIONAL TRACK PLANNING AND INNOVATIVE GOVERNMENT NPC188215 – Room 03

American Planning Association  
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New Orleans, LA  
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## SMART TOOLS FOR RECREATION PLANNING

Recreation for Residential Development

### Panel

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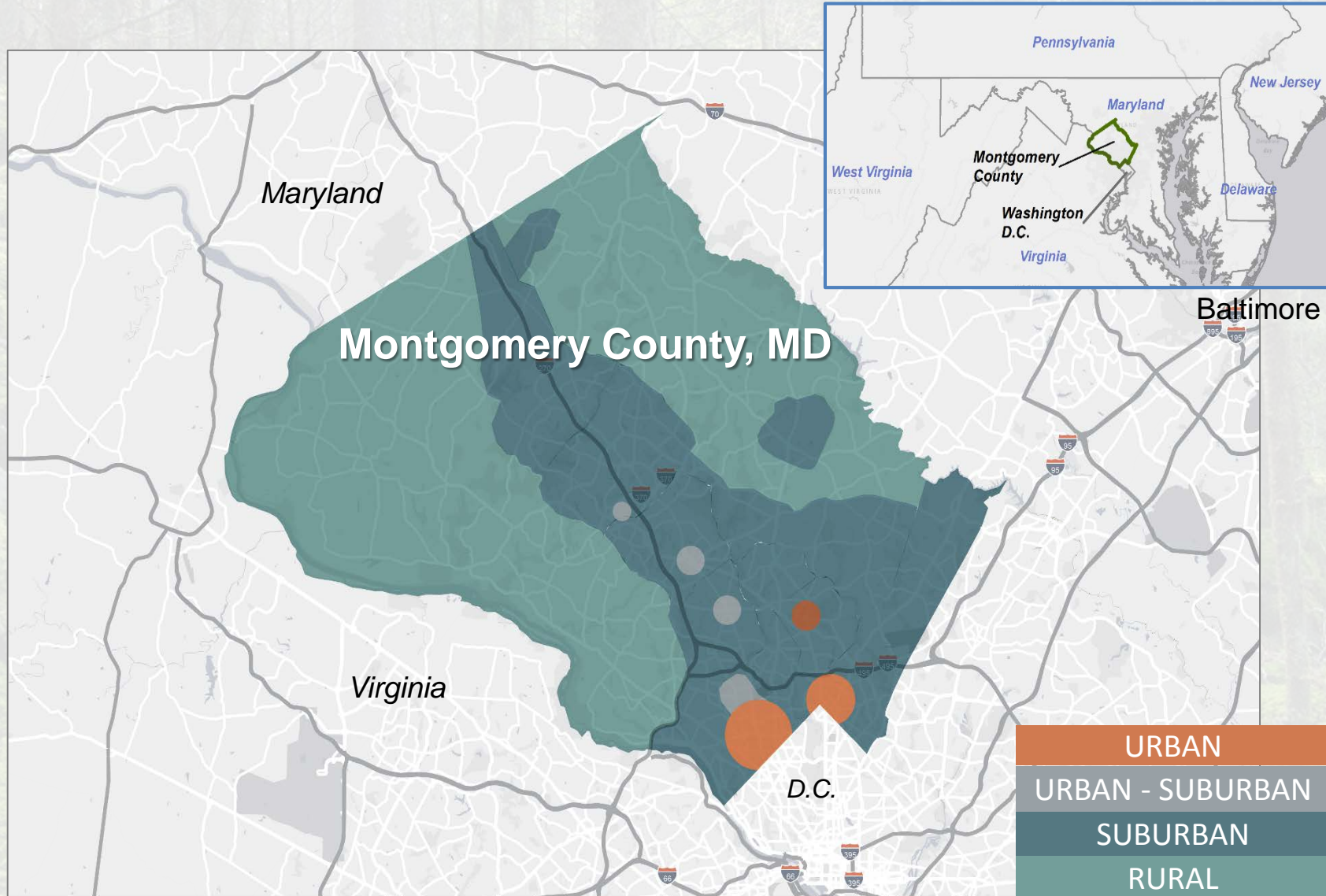
Grace E. Fielder, President, P.L.A., A.I.C.P., A.P.A.





# SMART TOOLS FOR RECREATION PLANNING

## Recreation for Diverse Land Use Patterns







# What are Recreational Guidelines?

- A set of guidelines for housing development to assure recreation opportunities for future residents
  - Required by Zoning Ordinance
- Initially established by the Montgomery Planning Board in 1992 to supplement public sector recreation facilities
- Guidelines establish predictable requirements to ensure safe, adequate and efficient recreational facilities for private residential development in the County
- Applied to regulatory review of subdivision and site plans

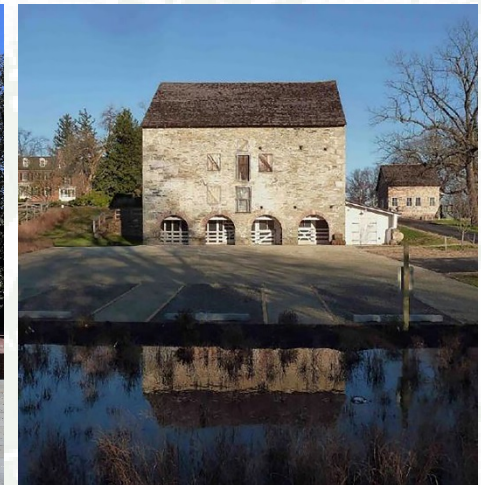




## Recreation and County Planning

### The Big Picture: Integrating Recreation and Planning Sectors

- Urban Design
- Infill Development
- Infrastructure Planning
- Transportation
- Environmental
- Historic Preservation

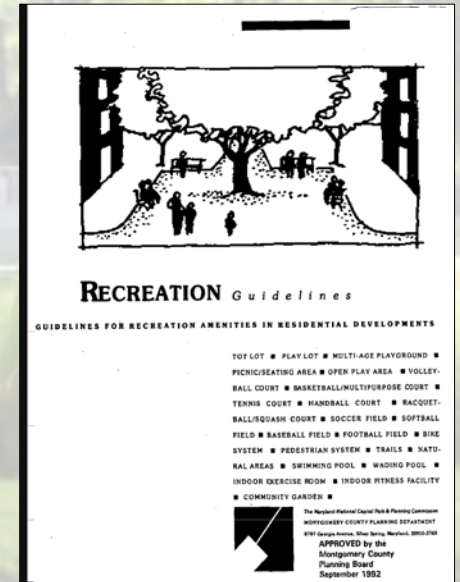




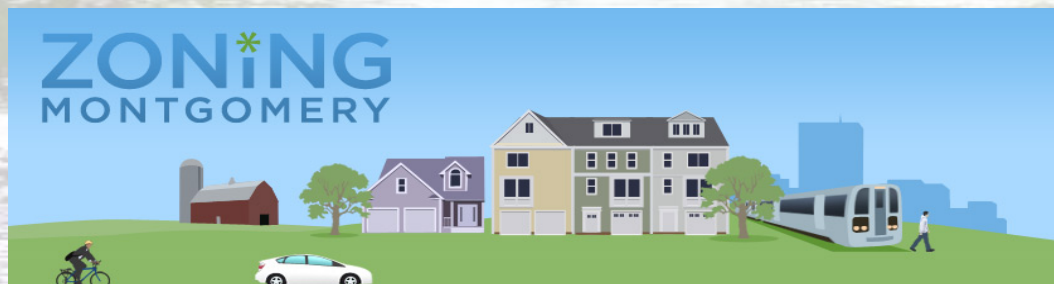


# Why Update Recreational Guidelines?

- 25 years since last studied (1992)



- New Zoning Ordinance (2014)

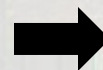




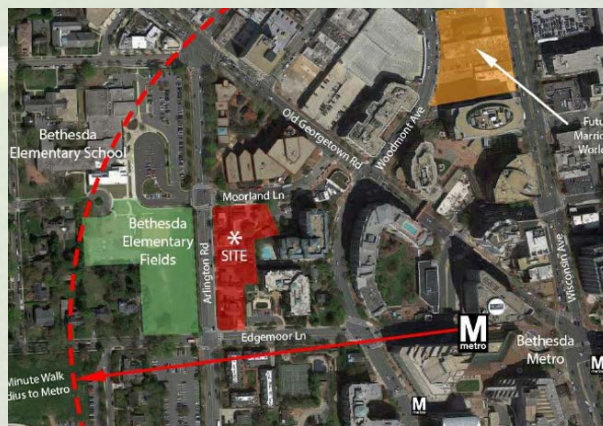
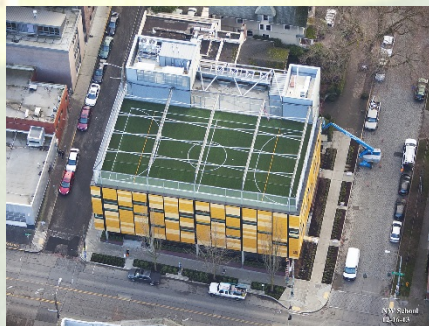


# Why Update Recreational Guidelines?

- Changes in Development Types



- Urban “infill”







# Why Update Recreational Guidelines?

- Changing recreation patterns and activity types
- Link between recreation and public health
- New facilities for range of ages and abilities
- Planning research and technology







### Why Update Recreational Guidelines?

- Developers need transparency, flexibility, predictability
- Greater accuracy in analysis of scale, density for infill building
- Location and distance to existing public facilities





## The Web Tool: A Point-Based System

- Quantitative system from 1992 Guidelines  
(Demand + Supply = Match)
- Transparent process
- Predictable, consistent accounting
- Scenario comparisons – facility choices
- Geo-spatial data – location based
- Master & Sector Plans: Public Recreation Open Space Plan

### DEMAND

STEP 1: CALCULATE DEMAND

STEP 2: MAP LOCATION

### SUPPLY

STEP 3: SELECT FACILITIES  
AND CALCULATE  
SUPPLY POINTS

### MATCH

STEP 4: COMPARE  
SUPPLY AND DEMAND

STEP 5: EXPORT  
SOLUTION





# SMART TOOLS FOR RECREATION PLANNING

[www.mcatlas.org/recreation](http://www.mcatlas.org/recreation)

## Web Tool Design

- Intuitive, easy-to-use tool
- No log-in, user-prompted
- Bookmark scenarios

### RECREATION FACILITIES CALCULATOR

YOUR CALCULATOR SESSION ID IS: 1461

PLEASE REMEMBER OR WRITE DOWN YOUR CALCULATOR SESSION ID IF YOU WISH TO RETRIEVE THE SAVED CALCULATIONS LATER.

ENTER SCENARIO ID NUMBER TO GO TO:  **GO** **CLONE SCENARIO**

**STEP 1 ENTER NUMBER OF HOUSING UNITS IN THE PROPOSED PROJECT (CALCULATE DEMAND POINTS)**

Housing Type	Housing Type Code	Quantity	Total	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	0	0.00	0.00	0.00	0.00	0.00	0.00
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	0	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Housing Units and Total Demand Points:</b>		0	0.00	0.00	0.00	0.00	0.00	0.00

**SAVE** **CANCEL**

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

☐ Master Plan ☐ Parks ☐ Facilities ☐ Trails ☐ Bikeways ☐ Places

**OFF-SITE FACILITIES WITHIN HALF MILE RADIUS FROM PROJECT LOCATION**

Off-Site Facility	Total	Children	Teens	Young Adults	Adults	Seniors
<b>Total Off-Site Supply Points:</b>	0	0	0	0	0	0
<b>35% of Total Off-Site Supply:</b>	0	0	0	0	0	0
<b>Max Allowed Plus (35% of T...)</b>	0	0	0	0	0	0
<b>Actual Assigned Off-Site Su...</b>	0	0	0	0	0	0

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

**ADD CUSTOM FACILITY**

Off-Site Facility	Quantity	Total	Children	Teens	Young Adults	Adults	Seniors	Total	Children	Teens	Young Adults	Adults	Seniors
<input type="checkbox"/> Photo Seating	1	1	1.5	3	3	3	0	0	0	0	0	0	0
<input type="checkbox"/> Public Art Seating - Adult	5	5	5	5	5	5	0	0	0	0	0	0	0
<input type="checkbox"/> Interactive Outdoor Mu...	5	5	3	2	4	4	0	0	0	0	0	0	0
<input type="checkbox"/> Landscape Elements - ...	4	3	3	2	4	4	0	0	0	0	0	0	0
<input type="checkbox"/> Outdoor Game Station	0	0	3	3	2	2	0	0	0	0	0	0	0
<input type="checkbox"/> Outdoor Fitness Station	0	0	3	3	2	2	0	0	0	0	0	0	0
<input type="checkbox"/> Inclusive Adaptive Pla...	4	6	6	9	9	9	0	0	0	0	0	0	0
<input type="checkbox"/> Terraced Garden Area	2	2	2	2	2	2	0	0	0	0	0	0	0
<input type="checkbox"/> Skate, Bike and Rollers...	0	3	4	5	5	4	0	0	0	0	0	0	0
<input type="checkbox"/> Grassy Area	0	0	2	6	6	5	0	0	0	0	0	0	0
<input type="checkbox"/> Performance Seating - ...	2	3	4	4	6	6	0	0	0	0	0	0	0
<input type="checkbox"/> Bicycle Wheel Ramp	0	0	1	2	2	1	0	0	0	0	0	0	0
<input type="checkbox"/> Bicycle Support Station	0	0	3	3	3	3	0	0	0	0	0	0	0

**SAVE** **CANCEL**

**STEP 4 VIEW RESULTS: TOTAL DEMAND POINTS, TOTAL SUPPLY POINTS AND ADEQUACY**

Age Group	Demand	Off-Site Su...	On-Site Su...	Total Supply	Supply New...	Adequacy	Adequacy I...
<b>Total (0 - 64 yrs)</b>	0.00	0	0	0.00	0	Adequate	✓
<b>Children (5 - 11 yrs)</b>	0.00	0	0	0.00	0	Adequate	✓
<b>Teens (12 - 17 yrs)</b>	0.00	0	0	0.00	0	Adequate	✓
<b>Young Adults (18 - 34)</b>	0.00	0	0	0.00	0	Adequate	✓
<b>Adults (35 - 64 yrs)</b>	0.00	0	0	0.00	0	Adequate	✓
<b>Seniors (65+ yrs)</b>	0.00	0	0	0.00	0	Adequate	✓

**REPORT**










## Web Tool Design: Step 1

- Demand: # Dwelling Units, Housing Types, Age Groups

### RECREATION FACILITIES CALCULATOR



[Bookmark](#) [Demand Table](#) [Supply Table](#)

YOUR CALCULATOR SESSION ID IS: 7359

PLEASE REMEMBER OR WRITE DOWN YOUR CALCULATOR SESSION ID IF YOU WISH TO RETRIEVE THE SAVED CALCULATIONS LATER.

ENTER SCENARIO ID NUMBER TO GO TO:  [GO](#) [CLONE SCENARIO](#)

**STEP 1** ENTER NUMBER OF HOUSING UNITS IN THE PROPOSED PROJECT (CALCULATE DEMAND POINTS)

Housing Type	Housing Type Code	Quantity	Tots	Children	Teens	Young Adults	Adults	Seniors
Single-Family Detached	SFD	29	4.35	10.15	10.15	7.83	21.17	4.06
Townhouses and Single-Family attached	TH	5	0.70	1.10	0.80	2.65	3.65	0.55
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	0	0.00	0.00	0.00	0.00	0.00	0.00
Total Housing Units and Total Demand Points:		34	5.05	11.25	10.95	10.48	24.82	4.61

[SAVE](#) [CANCEL](#)



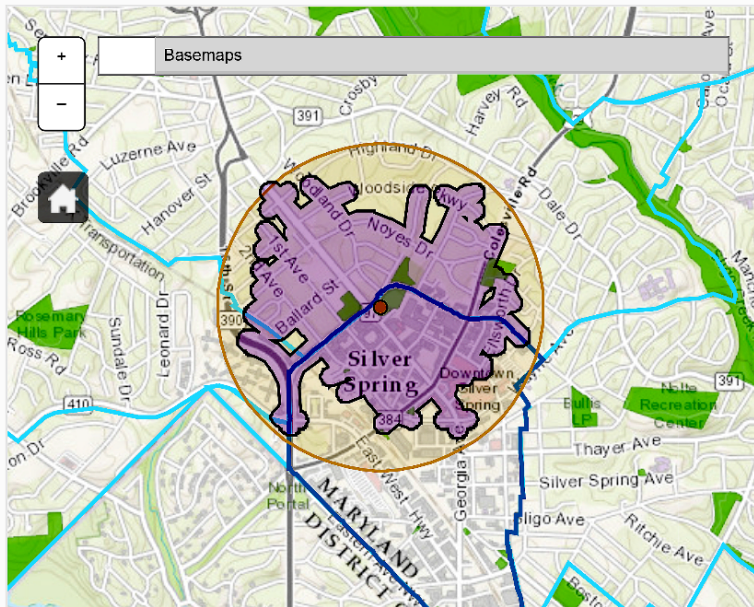


## Web Tool Design: Step 2

- Geolocation
- Existing Public Facilities: Parks, Recreation

### 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	Gazebo	5	5	3	2	4	4
1	Handball Ct	0	1.5	10	20	20	2
1	Trail System	1.28	2.28	0.93	12.54	10.59	2.72
1	Skate Park	0	6	10	12	7	1
2	Tennis Ct	0	3	20	32	24	6
3	Playground	0	27	9	6	9	6
	Total Offsite Supply Points	9.28	54.78	67.93	96.54	80.59	24.22
	35% of Total Offsite Supply	3.25	19.17	23.78	33.79	28.21	8.48
	Max Allowed Pts 35% of Total	4.48	3.99	2.17	29.26	24.71	9.52
	Actual Assigned Offsite Points	3.25	3.99	2.17	29.26	24.71	8.48



# SMART TOOLS FOR RECREATION PLANNING

[www.mcatlas.org/recreation](http://www.mcatlas.org/recreation)

## Web Tool Design: Step 3

### Recreation Facilities Proposed

3.4 Facilities and Supply Values

Shading denotes new facilities types

**Table 3.7 Recreation Facilities and Supply Values**

2016 Recreation Facilities

#	Facility Name	Page	B1 0.10 x D1	B2 0.30 x D2	B3 0.55 x D3	B4 0.15 x D4	B5 0.15 x D5	B6 0.10 x D6
1	Pedestrian Connection - Trail System	40	0.10 x D1	0.30 x D2	0.55 x D3	0.15 x D4	0.15 x D5	0.10 x D6
2	MasterSmart Trail	42	0	9	10	12	12	12
3	Staircase	43	0	8	12	14	14	7
4	Pedestrian Bridge	44	5	10	12	12	12	12
5	Bikeways	45	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 Station (In Box)	46	0	9	10	12	12	5
7	Bicycle Pump Station	47	0	7	14	14	12	5
8	Dog Park	48	0	7	14	14	12	5
9	Dog Run	49	0	0	4	14	12	5
10	Dog Waste Station	50	0	0	2	8	8	5
11	Indoor Community Space	53	0.10 x D1	0.15 x D2	0.30 x D3	0.10 x D4	0.10 x D5	0.40 x D6
12	Performance Space (Indoor)	54	1	8	8	9	10	5
13	Indoor Gymnasium or Exercise Room	55	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)	56	9	9	7	7	5	5
15	Yoga Room	57	0	7	4	14	14	5
16	Racquetball/Handball/Squash	58	0	1.5	10	10	10	7
17	Futsal Court	59	0	7	6	7	5	8
18	Indoor Fitness Room	60	0.05 x D1	0.10 x D2	0.30 x D3	0.25 x D4	0.20 x D5	0.15 x D6
19	Open Grass Area Lawn - Small (5,000 sf)	61	5	1	9	9	9	5

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

#### ADD CUSTOM FACILITY

Quantity	Recreation Facility	Bonus P...	Is Pub...	Tots Pts	Children Pts	Teens Pts	Young Ad...	Adults Pts	Seniors Pts	Tots	Children	Teens	Young Adults	Adults	Seniors
0	Outdoor Fitness Station		<input type="checkbox"/>	0	0	3	3	2	2	0	0	0	0	0	0
0	Inclusive Adaptive Recreati...		<input type="checkbox"/>	4	6	6	9	9	9	0	0	0	0	0	0
0	Terraced Garden Area		<input type="checkbox"/>	2	2	2	2	2	2	0	0	0	0	0	0
0	Stairs, Steps and Railings		<input type="checkbox"/>	0	3	4	5	5	4	0	0	0	0	0	0
0	Grilling Area		<input type="checkbox"/>	0	0	2	6	6	5	0	0	0	0	0	0
0	Performance Setting - Stag...		<input type="checkbox"/>	2	5	4	4	6	6	0	0	0	0	0	0
0	Bicycle Wheel Ramp		<input type="checkbox"/>	0	0	1	2	2	1	0	0	0	0	0	0
0	Bicycle Support Station		<input type="checkbox"/>	0	0	3	3	3	3	0	0	0	0	0	0
1	Pedestrian Bridge		<input type="checkbox"/>	5	10	12	12	12	12	5	10	12	12	12	12
1	Dog Park		<input type="checkbox"/>	0	2	3	5	6	6	0	2	3	5	6	6
1	Indoor Community Space		<input type="checkbox"/>	.1xD1	.15xD2	.3xD3	.3xD6	.3xD4	.4xD5	2	2.1	1.8	43.8	33.6	20
1	Adaptive Sensory Gymnasi...		<input type="checkbox"/>	9	9	7	7	5	5	9	9	7	7	5	5
1	Yoga Room		<input type="checkbox"/>	0	2	4	9	9	9	0	2	4	9	9	9
1	Indoor Fitness Room		<input type="checkbox"/>	0xD1	.1xD2	.1xD3	.25xD6	.2xD4	.15xD5	0	1.4	0.6	36.5	22.4	7.5
6	Total Supply Points:		<input type="checkbox"/>							16.00	26.50	28.40	113.30	88.00	59.50

SAVE CANCEL







## Web Tool Design: Step 4

- Export Results to Report

### STEP 4 VIEW RESULTS: TOTAL DEMAND POINTS, TOTAL SUPPLY POINTS AND ADEQUACY

Age Group	Demand	Offsite Supply	Onsite Supply	Total Supply	Supply Needed	Adequacy	Adequacy Icon
Tots (0 - 4 yrs)	20.00	5.6	16	21.60	0	Adequate	✓
Children (5 - 11 yrs)	14.00	4.9	26.5	31.40	0	Adequate	✓
Teens (12 - 17 yrs)	6.00	2.1	28.4	30.50	0	Adequate	✓
Young Adults (18 - 34 yrs)	146.00	44.73	113.3	158.03	0	Adequate	✓
Adults (35 - 64 yrs)	112.00	31.36	88	119.36	0	Adequate	✓
Seniors (65+ yrs)	50.00	8.23	59.5	67.73	0	Adequate	✓

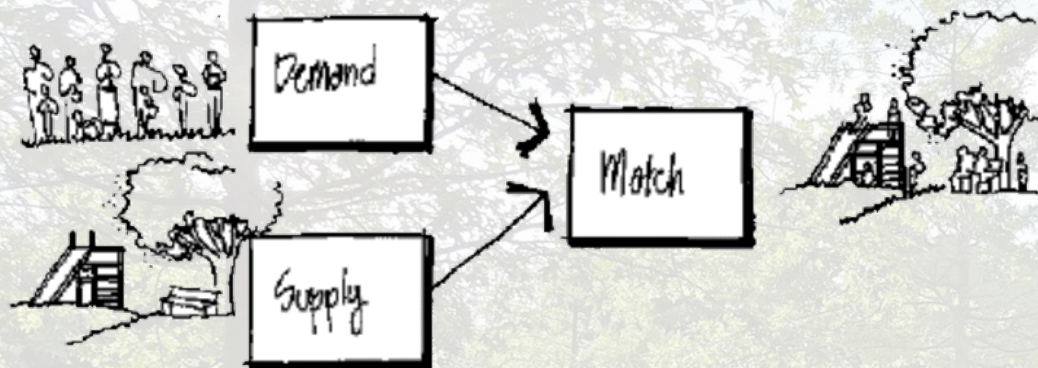
REPORT





## SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Demand Points



### Recreation Demand:

Varies by person's age & housing type







# SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Demand Points

## Age Profiles by Housing Structure Types

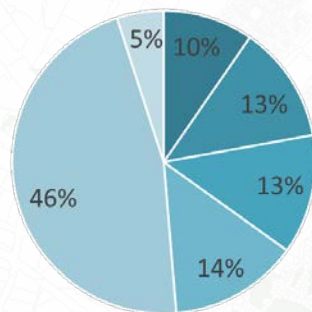
### Age Groups

Tots	Children	Teens	Young Adults	Adults	Seniors
0-4	5-11	12-17	18-34	35-64	65+

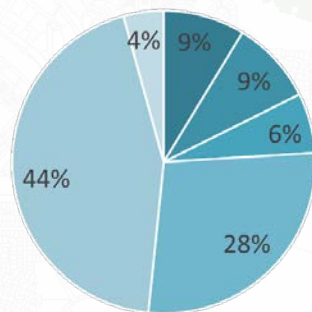
### Housing Recently Built (2005-2014)



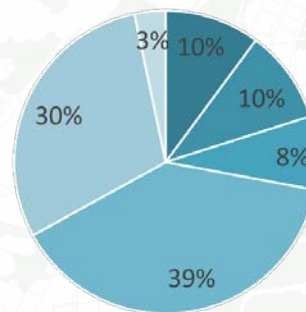
### Age Percentage by Structure Type



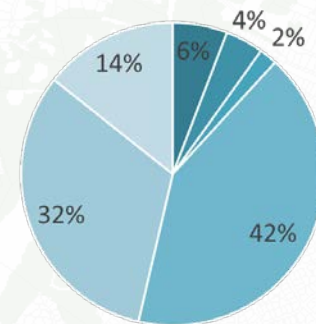
Detached



Attached



Mid-Rise



High-Rise



Source: Public Use Microdata Sample, 2014 American Community Survey



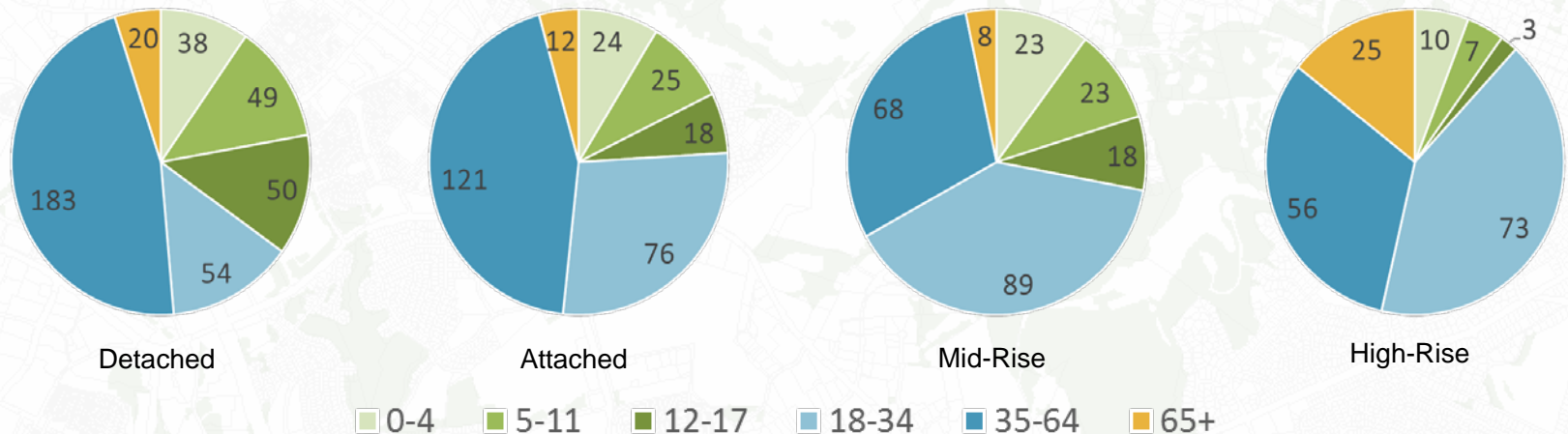


### Standardized Age by Housing Type

- Age distribution in each housing type standardized to 100 units

Population Yield per 100 Housing Units				
	Detached	Attached	Mid-Rise	High-Rise
Average HH Size	3.95	2.75	2.29	1.75
<b>Pop/100 units</b>	<b>395</b>	<b>275</b>	<b>229</b>	<b>175</b>

### Estimated Population by Age in 100 Housing Units



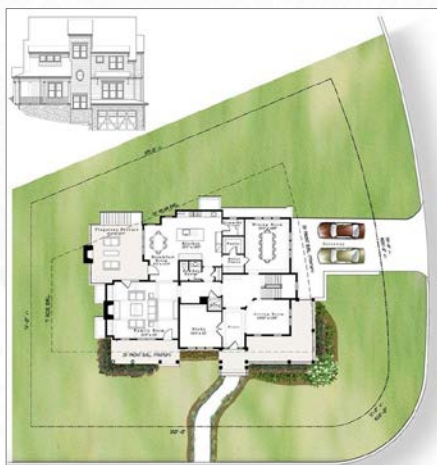




## SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Demand Points

Recreation demand weighted proportionally to amount of recreation that must be provided outside of the household



### Lower factor

Activity occurring on person's property, indoors or within a private yard



### Higher factor

Demand met outside private household in surrounding shared public recreation space





## SMART TOOLS FOR RECREATION PLANNING

Deriving Recreation Demand Points

### Recreation demand points



***Attached Unit: 24 tots X .6= 14 demand points/100 units***

Recreation Demand Points per 100 Dwelling Units						
	0-4	5-11	12-17	18-34	35-64	65+
Detached	15	35	35	27	73	14
Attached	14	22	16	53	73	11
Mid-rise	16	23	18	71	48	8
High-rise	10	7	3	73	56	25





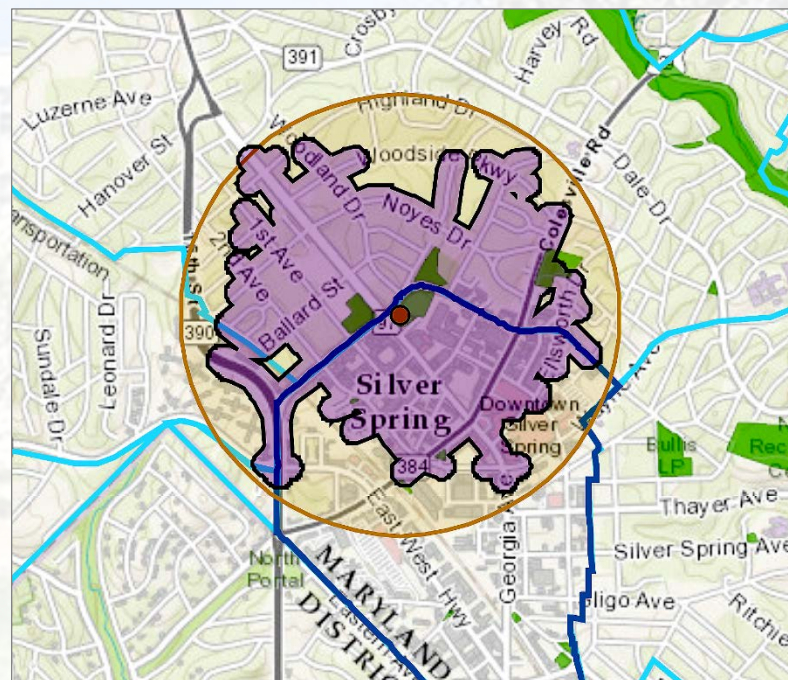
## SMART TOOLS FOR RECREATION PLANNING

### Deriving Recreation Supply Points

# Recreation Supply Points

## Existing public facilities data:

- Schools, Parks,
- Community Centers
- Privately-owned Public Spaces
- Bikeways and Trails



## Generation of the 10-minute walkshed:

- Shows distance to all accessible public facilities within ¼ mile that are eligible for off-site recreation credit



# Incentives for Providing Public Facilities

## Master Plan Recommended Facilities

- Bonus supply credit for fulfilling master plan recommendations for publicly accessible open space or recreation facilities



**Table 11.6.1 Approved Facilities Incentive List**

Facility Name	Master Plan Area	Source Plan	Bonus
Dog Park	Wheaton	2012 PROS	10%
Dog Park	Silver Spring	2012 PROS	10%
Dog Park	White Flint	2012 PROS	10%
Dog Park	Bethesda	2012 PROS	10%





## SMART TOOLS FOR RECREATION PLANNING

### Deriving Recreation Demand Points

# Incentives for Providing Public Facilities

## Publicly Accessible Private Open Space

- Bonus supply credit for providing public access to privately-owned recreation space

Quantity	Recreation Facility	Bonus P...	Is Pub...
0	<u>Terraced Garden Area</u>		<input type="checkbox"/>
0	<u>Stairs, Steps and Railings</u>		<input type="checkbox"/>
0	<u>Grilling Area</u>		<input type="checkbox"/>
0	<u>Performance Setting - Stage Outdoor</u>		<input type="checkbox"/>
0	<u>Bicycle Wheel Ramp</u>		<input type="checkbox"/>
0	<u>Bicycle Support Station</u>		<input type="checkbox"/>
1	<u>Pedestrian Connection - Trail System</u>		<input type="checkbox"/>
1	<u>Bikeways</u>		<input type="checkbox"/>
1	<u>Natural Area</u>	10%	<input checked="" type="checkbox"/>
1	<u>Ornamental Garden or Sculpture Garden</u>		<input type="checkbox"/>
1	<u>Playground (Age 2-5) [Tot Lot]</u>		<input type="checkbox"/>
1	<u>Urban Plaza</u>	10%	<input checked="" type="checkbox"/>
2	<u>Picnic/Seating</u>	10%	<input checked="" type="checkbox"/>
8	Total Supply Points:		<input type="checkbox"/>





# SMART TOOLS FOR RECREATION PLANNING

## Deriving Recreation Demand Points

# Incentives for Providing Public Facilities

## Custom Facilities

- Allows developers or owners to propose new facilities types



### 11.4.1 Questionnaire

11.4.1 Custom Recreation Facilities Proposal -- Evaluation Levels	
<b>Descriptive Information</b>	1. Name of project and recreation facility
	2. Description of recreation facility
	3. Is the facility intended for public access?
	A. Yes
<b>Base Value Determination Questions</b>	B. No
	4. Is facility co-located with a stormwater management facility?
	A. Yes
	B. No
<b>Base Value Modifier Questions</b>	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	
<b>Base Value Modifier Questions</b>	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
	9. Does this facility encourage physical or aerobic exercise?
	A. Yes
B. No	
<b>Base Value Modifier Questions</b>	10. Is this facility suitable for teens?
	A. Yes
	B. No





## SMART TOOLS FOR RECREATION PLANNING

<http://montgomeryplanning.org/planning/functional-planning/recreation-guidelines/>

### Categories of Recreation

- 16 Categories of Recreation Facilities  
80 Facilities Types  
47 New Facilities  
33 Traditional Facilities
- Cut Sheets with Specifications





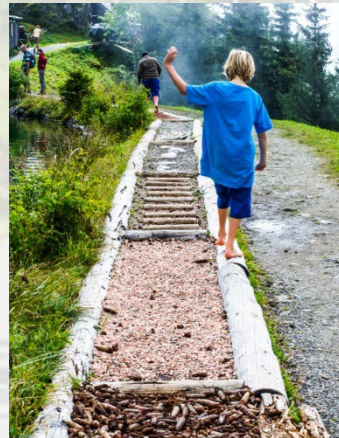


# SMART TOOLS FOR RECREATION PLANNING

## Typical Rec Categories



### Active Connections



#### 1. Pedestrian Connection System or Trail System

Definition	A pedestrian system within the project site, such as a walking path sidewalk or hiking trail, that provides access to other public facilities, recreational 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	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.  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. For nature trails, pervious surfaces are encouraged. The trail should be designed to minimize erosion.
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.
Trail Extensions	The web tool offers a "pedestrian route extension." This web tool component function may be used in the case of a trail or pedestrian route extension that provides access to an off-site public recreational facility, creating a newly extended walk shed.

#### Supply Values

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



Right: Nature trail, Texas Park and Wildlife Center

Far right: Nature trail, Montgomery County Parks, Montgomery County, MD







# SMART TOOLS FOR RECREATION PLANNING

## Typical Rec Categories



### Bicycle Facilities

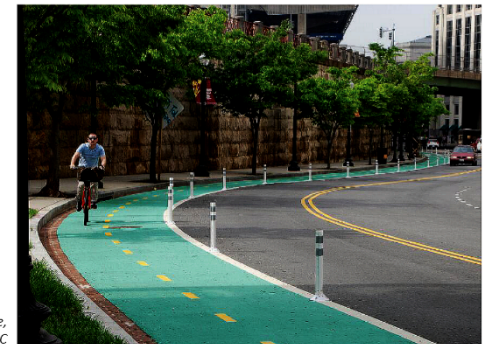


#### 5. Bikeways

- 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 Countywide Bikeways Functional Master Plan 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**
  - Bike routes should provide safe linkages to neighborhood destinations, such as public transportation and public facilities, and access to the countywide bike network.
  - Bikeways should be provided through natural areas wherever possible.
  - Resting areas and bike repair stations should be provided.
  - Must comply with the Montgomery County Bicycle Master Plan.
- 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







# SMART TOOLS FOR RECREATION PLANNING

## Typical Rec Categories



### Child Play Areas



#### 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 in 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	0	9	3	2	4	2







# SMART TOOLS FOR RECREATION PLANNING

## Typical Rec Categories



### Open Grass Lawns



### 21. Open Grass Area Lawn - Urban

**Definition** An open, level grass area to accommodate relaxation, play or sports activity within a high density residential or mixed-use community within an urban area.

**Size** Urban: 2,000 square feet minimum.

**Possible Activities** Small, bounded areas for active recreation; areas designed for seating, rest or reflection; areas for social gatherings such as picnics.

**Location** Integrated into residential development or available as public open space.

**Design Criteria** Setbacks: 30 feet from building, 30 feet from curb.

Lawn area is defined and contained by architecture and landscaping. Consider compatibility with immediately surrounding uses when placing lawn.

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.

Design of the space should be open and inviting at the sidewalks, easily seen; low-height design elements should convey openness with generous entry paths.

#### 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





## New Rec Categories



### Adventure Sports



#### 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	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. Include events, such as ledges, steps, railings or sculptural elements, constructed as part of the course.
Resources	Skate Park Guide <a href="http://www.skateparkguide.com/design_basics.html">http://www.skateparkguide.com/design_basics.html</a>

#### 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





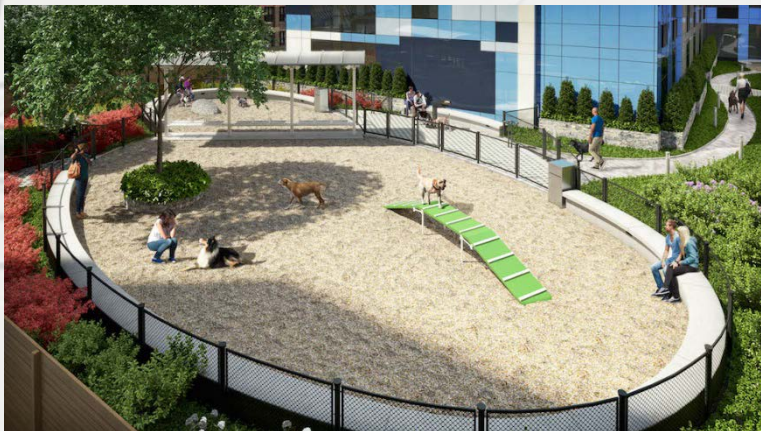
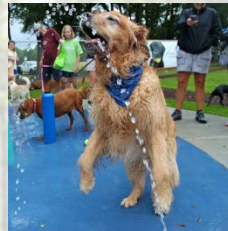


# SMART TOOLS FOR RECREATION PLANNING

## New Rec Categories



### Dog Facilities



### 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 Park	0	2	3	5	6	6



Elsworth Urban Dog Park,  
M-NCPPC, Silver Spring, MD







# SMART TOOLS FOR RECREATION PLANNING

## New Rec Categories



### Inclusive Recreation - Child



#### 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 place for retreat to accommodate over-stimulation.</p> <p>Ensure modular structures provide alternative activities on each deck level. Encourage similar play at various ability levels in close proximity. Cluster activities into pods for better management. Consider unitary surfacing to improve wheel access and navigation. Ensure the most popular activities are accessible by all ability levels. Provide travel routes comfortable enough to accommodate wheelchairs.</p> <p>Source: Playground Professionals</p>

#### Supply Values

	Tots	Children	Teens	Young Adults	Adults	Seniors
--	------	----------	-------	--------------	--------	---------

*Inclusive, accessible carousel, Clemmyontri Park, McLean, VA, Design by Grace Fielder and Associates, Chartered.*







# SMART TOOLS FOR RECREATION PLANNING

## New Rec Categories



### Inclusive Recreation - Adult



#### 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** Accommodates activities for young adults, adults and seniors who require adapted recreational exercise and fitness programs.

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.

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.

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.

#### 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







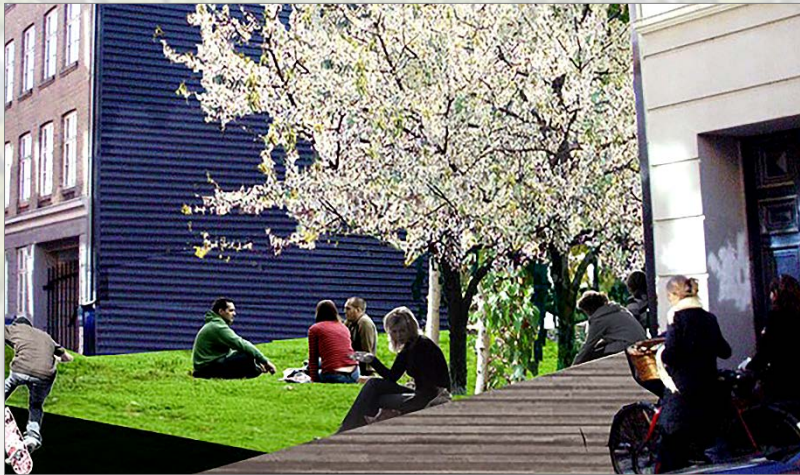
## SMART TOOLS FOR RECREATION PLANNING

### New Rec Categories



#### Formal Urban Spaces

##### Pocket Park



##### Through-Block Connection



##### Neighborhood Green



##### Urban Plaza



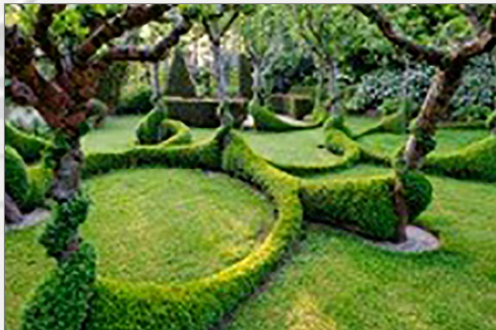




# SMART TOOLS FOR RECREATION PLANNING

## New Rec Categories

### Landscape Elements for Toddlers



#### 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 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*







# Case Study: Bethesda Mews

## Recreation and Sustainability

- American College of Cardiology Site
- R-60/MPDU/Optional Method
- 34 Dwelling Units (Affordable Units)
- 9.87 Acres
- Bethesda/Chevy Chase Master Plan
- Cluster Development Marketing







## SMART TOOLS FOR RECREATION PLANNING

<http://mcatlas.org/recreation/Default.aspx?ScenarioId=7359>

# Case Study: Bethesda Mews

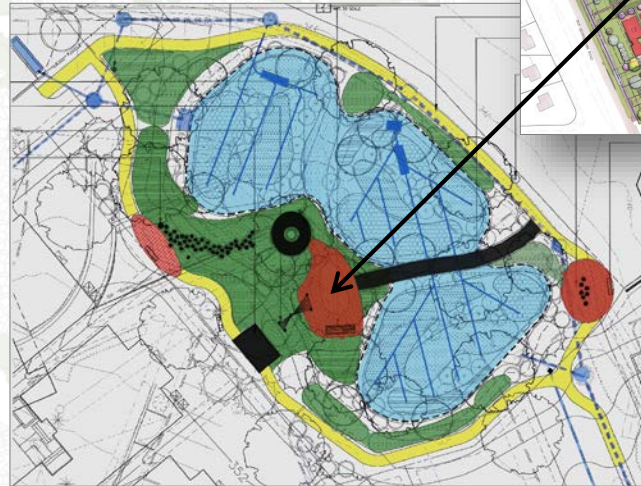
## Recreation and Sustainability

### Stormwater Facilities, ESD and Recreation

- Efficient use of land
- Explorative play
- Increase in housing units

### Natural Areas

- Dedication of forested areas
- Category I forestation easement
- Recreation supply credit







# SMART TOOLS FOR RECREATION PLANNING

<http://mcatlas.org/recreation/Default.aspx?ScenarioId=7359>

## Case Study: Bethesda Mews

### The Web Tool Scenario

#### Step 1: Demand

#### Step 2: Geo-location

### RECREATION FACILITIES CALCULATOR

[Bookmark](#)
[Demand Table](#)
[Supply Table](#)

YOUR CALCULATOR SESSION ID: -----

PLEASE REMEMBER OR WRITE DOWN YOUR CALCULATOR SESSION ID IF YOU WISH TO RETRIEVE THE SAVED CALCULATIONS LATER.

ENTER SCENARIO ID NUMBER TO GO TO:  **GO** **CLONE SCENARIO**

**STEP 1** ENTER NUMBER OF HOUSING UNITS IN THE PROPOSED PROJECT (CALCULATE DEMAND POINTS)

Housing Type	Housing Type Code	Quantity	Tots	Children	Teens	Young Adults	Adults	Seniors
Single-Family Detached	SFD	29	4.35	10.15	10.15	7.83	21.17	4.08
Townhouses and Single-Family attached	TH	5	0.70	1.10	0.80	2.65	3.65	0.55
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	0	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Housing Units and Total Demand Points:</b>		<b>34</b>	<b>5.05</b>	<b>11.25</b>	<b>10.95</b>	<b>10.48</b>	<b>24.82</b>	<b>4.61</b>

**SAVE** **CANCEL**

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

☒ Master Plans
 ☒ Parks
 ☒ Facilities
 ☒ Trails
 ☒ Bikeways
 ☒ Parcels
 **Draw Trail** **Clear Trail**

OFF SITE FACILITIES WITHIN HALF MILE RADIUS FROM PROJECT LOCATION

Quantity	Park Facility	Tots	Children	Teens	Young Adults	Adults	Seniors
1	Bikeways	0.25	1.13	1.64	1.57	3.72	0.48
1	Pocket Green	3	5	5	8	8	6
1	Softball Field	1	7	10	12	7	2
1	Soccer Field	2	15	20	25	15	2
	<b>Total Offsite Supply Points:</b>	<b>6.25</b>	<b>28.13</b>	<b>36.64</b>	<b>46.57</b>	<b>33.72</b>	<b>10.46</b>
	<b>35% of Total Offsite Supply Poi...</b>	<b>2.19</b>	<b>9.84</b>	<b>12.82</b>	<b>16.3</b>	<b>11.8</b>	<b>3.66</b>
	<b>Max Allowed Pts (35% of Total ...</b>	<b>1.77</b>	<b>3.94</b>	<b>3.83</b>	<b>3.67</b>	<b>8.69</b>	<b>1.61</b>
	<b>Actual Assigned Offsite Supply ...</b>	<b>1.77</b>	<b>3.94</b>	<b>3.83</b>	<b>3.67</b>	<b>8.69</b>	<b>1.61</b>







# SMART TOOLS FOR RECREATION PLANNING

<http://mcatlas.org/recreation/Default.aspx?ScenarioId=7359>

## Case Study: Bethesda Mews

### The Web Tool Scenario

Step 3: Supply

Step 4: Adequacy

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

##### ADD CUSTOM FACILITY

Quantity	Recreation Facility	Bonus P...	Is Pub...	Tots Pts	Children Pts	Teens Pts	Young Ad...	Adults Pts	Seniors Pts	Tots	Children	Teens	Young Adults	Adults
0	Terraced Garden Area		<input type="checkbox"/>	2	2	2	2	2	2	0	0	0	0	0
0	Stairs, Steps and Railings		<input type="checkbox"/>	0	3	4	5	5	4	0	0	0	0	0
0	Grilling Area		<input type="checkbox"/>	0	0	2	6	6	5	0	0	0	0	0
0	Performance Setting - Stage Outdoor		<input type="checkbox"/>	2	5	4	4	6	6	0	0	0	0	0
0	Bicycle Wheel Ramp		<input type="checkbox"/>	0	0	1	2	2	1	0	0	0	0	0
0	Bicycle Support Station		<input type="checkbox"/>	0	0	3	3	3	3	0	0	0	0	0
1	Pedestrian Connection - Trail System		<input type="checkbox"/>	.1xD1	.2xD2	.15xD3	.15xD6	.15xD4	.1xD5	0.51	2.25	1.84	1.57	3.72
1	Bikeways		<input type="checkbox"/>	.05xD1	.1xD2	.15xD3	.15xD6	.15xD4	.1xD5	0.25	1.13	1.84	1.57	3.72
1	Natural Area	10%	<input checked="" type="checkbox"/>	.05xD1	.05xD2	.1xD3	.1xD6	.1xD4	.05xD5	0.28	0.82	1.2	1.15	2.73
1	Ornamental Garden or Sculpture Garden		<input type="checkbox"/>	2	3	3	7	8	5	2	3	3	7	8
1	Playground (Age 2-5) (Tot Lot)		<input type="checkbox"/>	9	2	2	3	3	3	9	2	2	3	3
1	Urban Plaza	10%	<input checked="" type="checkbox"/>	4	6	6	18	15	6	4.4	6.6	6.6	19.8	16.5
2	Picnic/Seating	10%	<input checked="" type="checkbox"/>	1	1	1.5	3	3	3	2.2	2.2	3.3	6.6	6.6
8	Total Supply Points:		<input type="checkbox"/>							18.64	17.80	19.38	40.69	44.27

SAVE CANCEL

#### STEP 4 VIEW RESULTS: TOTAL DEMAND POINTS, TOTAL SUPPLY POINTS AND ADEQUACY

Age Group	Demand	Offsite Supply	Onsite Supply	Total Supply	Supply Needed	Adequacy	Adequacy Icon
Tots (0 - 4 yrs)	5.05	1.77	18.64	20.41	0	Adequate	✓
Children (5 - 11 yrs)	11.25	3.94	17.8	21.74	0	Adequate	✓
Teens (12 - 17 yrs)	10.95	3.83	19.38	23.21	0	Adequate	✓
Young Adults (18 - 34 yr)	10.48	3.67	40.69	44.36	0	Adequate	✓
Adults (35 - 64 yrs)	24.82	8.69	44.27	52.96	0	Adequate	✓
Seniors (65+ yrs)	4.61	1.61	22.37	23.98	0	Adequate	✓

REPORT







# Recreation and Sustainability

## Stream Restoration and Natural Area Rehabilitation

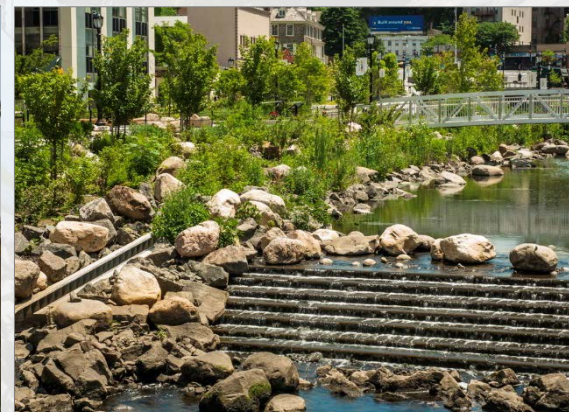
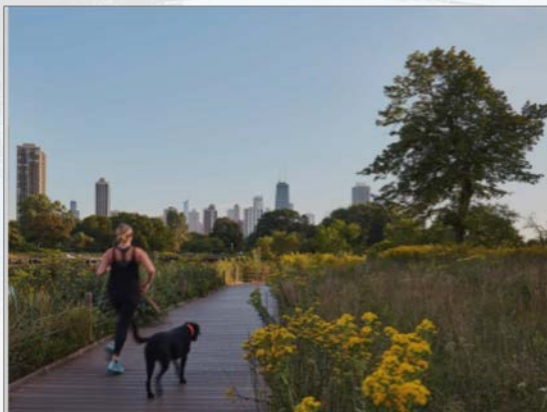
- Recreation credit for stream restoration
- Off-site or on-site

## Community Gardening

- Supply credit for gardens

## Stormwater Management

- Recreation and Infrastructure







# Recreation Guidelines Manual

[http://montgomeryplanning.org/wp-content/uploads/2017/05/Rec-Guidelines\\_FINAL.pdf](http://montgomeryplanning.org/wp-content/uploads/2017/05/Rec-Guidelines_FINAL.pdf)

## The Web Tool

[www.mcatlas.org/recreation](http://www.mcatlas.org/recreation)

# Questions ?



## SMART TOOLS FOR RECREATION PLANNING

END







# SMART TOOLS FOR RECREATION PLANNING

[www.mcatlas.org/recreation](http://www.mcatlas.org/recreation)



[http://montgomeryplanning.org/wp-content/uploads/2017/05/Rec-Guidelines\\_FINAL.pdf](http://montgomeryplanning.org/wp-content/uploads/2017/05/Rec-Guidelines_FINAL.pdf)







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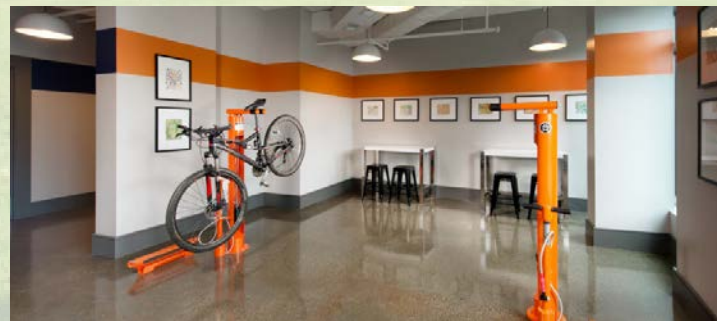






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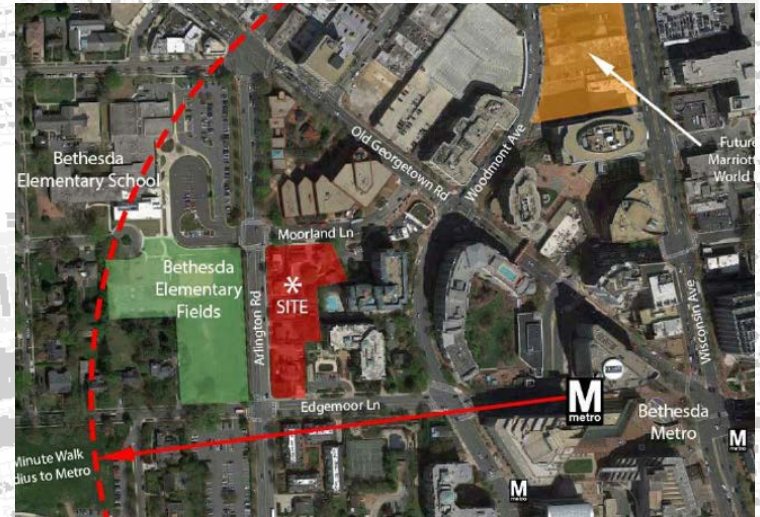


## Case Study: ZOM Bethesda

### Urban High-Rise Living

#### Infill Development

- Efficient use of land: 1.84 acre tract
- 235 dwelling units
- Higher density zoning
- Bethesda Downtown Sector Plan



#### Indoor Amenities

- Social interaction areas
- Fitness
- Communication

#### Urban Amenities







## SMART TOOLS FOR RECREATION PLANNING

<http://mcAtlas.org/recreation/Default.aspx?ScenarioId=7417>

### Case Study: ZOM Bethesda

#### Urban High-Rise Living

#### Neighborhood Amenities

- 4 Urban Parks
- Capitol Crescent Trail
- Elementary School & Fields
- Library







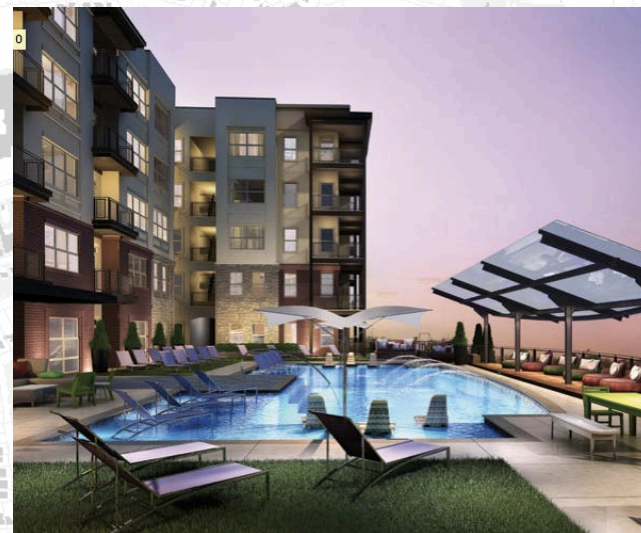
## SMART TOOLS FOR RECREATION PLANNING

<http://mcatlas.org/recreation/Default.aspx?ScenarioId=7417>

### Case Study: ZOM Bethesda

Urban High-Rise Living

Urban Residential Amenities - Outdoor







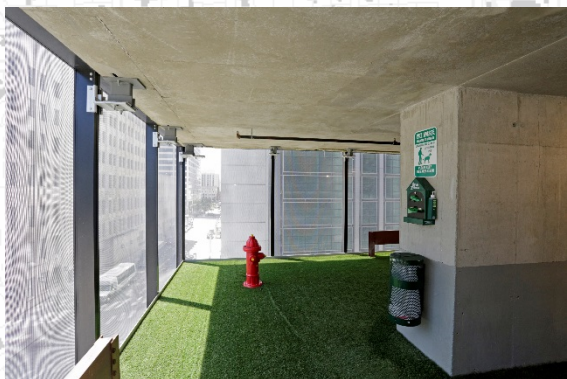
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### Case Study: ZOM Bethesda

Urban High-Rise Living

Urban Residential Amenities - Indoor







# Recreation and County Planning

## The Big Picture: Integrating Recreation and Planning Sectors

- Urban Design
- Infill Development
- Transportation
- Environmental
- Historic Preservation







## SMART TOOLS FOR RECREATION PLANNING

[www.mcatlas.org/recreation](http://www.mcatlas.org/recreation)



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## SMART TOOLS FOR RECREATION PLANNING

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