

PUBLIC SPACES MASTER PLAN UPDATE: Deeper Dig on Strategies to Expand Field Capacity with Synthetic Turf & Lights

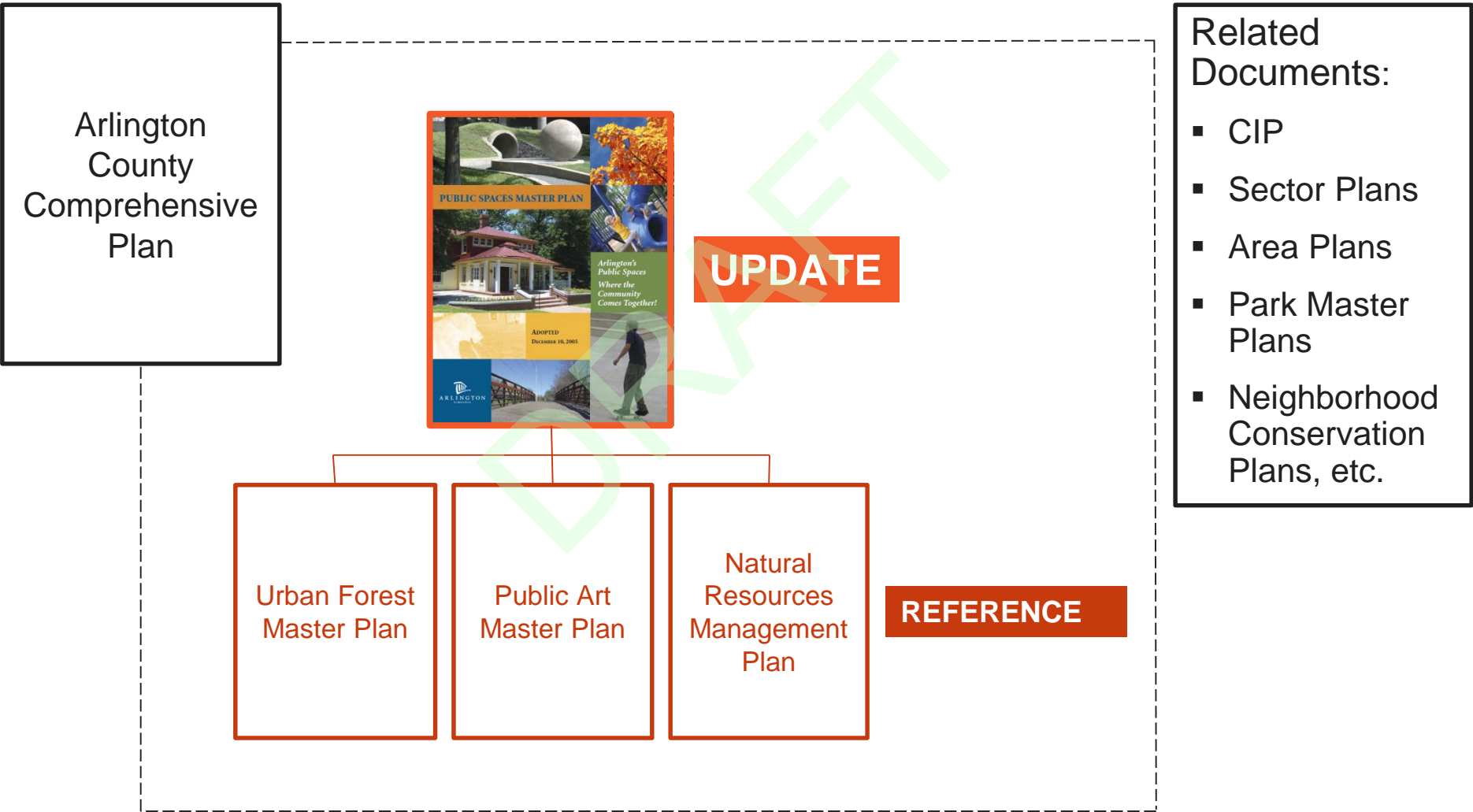
December 6, 2017

AGENDA

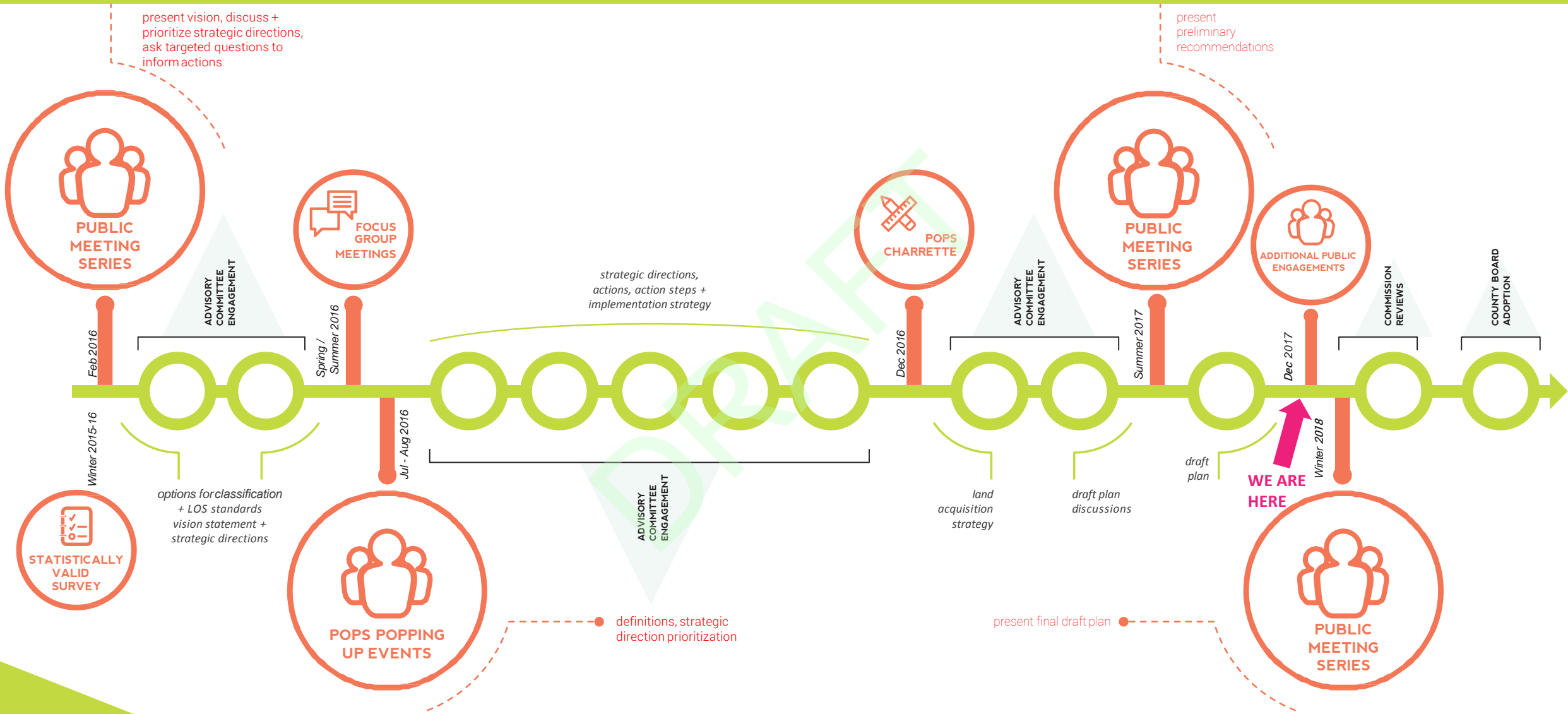


- Planning Framework
- Context
- Assessing Field Needs
- Synthetic Conversion & Lighting
- Next Steps

PLANNING FRAMEWORK



TIMELINE



PUBLIC INPUT TO DATE

Public Meeting Series 1

Langston-Brown CC
Courthouse
Whitlow's on Wilson
Arlington Mill CC

Stakeholder Interviews

Advisory Committee
APS
Aquatics
BIDs & Partners
Bike/Ped
Dog Parks
Gymnastics
Natural Resources
Urban Forestry
Sports

Statistically Valid Survey

Goal: 800
Actual: 1,470

POPS Popping Up

July 4th @ Long Bridge Park
Central Library
Fairlington Farmers Market
Clarendon Farmers Market
Arlington Farmers Market
Columbia Pike Farmers Market
Westover Farmers Market
Ballston Farmers Market

Focus Groups

Millennials
Seniors
Teens
Gen Xers

Charrette

Over 90 participants

Public Meeting Series 2

Arlington Mill CC
Courthouse
Washington-Lee HS

PRELIMINARY DRAFT

- Online feedback gathered July 11 to August 31



PUBLIC FEEDBACK

- Over 1,100 overall comments

Level of Service

- methodology/maps need to be clarified & simplified
- impact of trends on LOS

Synthetic Field Conversion/Lighting

- support & disagreement
- relation between LOS and proposed conversions
- impact of lights on surrounding residential properties
- separate synthetic turf from lighting
- create criteria for field conversion
- develop a list of priority candidates for conversion
- develop clear lighting standards

Why not address "need" by converting existing lighted turf fields to synthetic?

Consideration must be given to character of neighborhood- whether lighted + urban or dark and quiet & impacts on neighbors' quality of life.

Making recreation areas more accessible is our responsibility. Increase turf fields and lighting.

ADDITIONAL PUBLIC MEETINGS IN DECEMBER

Help Arlington Plan for our Parks and Recreation Places and Spaces

COME TO ANY OR ALL OF THESE PUBLIC MEETINGS. YOUR INPUT WILL HELP US FINE-TUNE OUR PUBLIC SPACES MASTER PLAN.

Get more information at parks.arlingtonva.us, search POPS.

Chat about Land Acquisition
FRIDAY
December 1
COURTHOUSE PLAZA
11:30am – 1pm

Deeper Dig on Strategies to Expand Field Capacity with Synthetic Turf & Lights
WEDNESDAY
December 6
NAVY LEAGUE BUILDING
6:30 – 9pm

Stewarding Tree Canopy, Natural Resources & Casual Use Spaces
THURSDAY
December 14
CENTRAL LIBRARY
6:30 – 9pm



CONTEXT

SYNTHETIC TURF FIELD PROGRAM

- In 2002, the first full synthetic field was installed at Gunston Park.
- In 2003, a citizen/staff Synthetic Grass Working Group submitted their recommendations regarding conversion of athletic fields from natural grass to synthetic grass.
- As a result of this report, several fields were identified as candidates for synthetic surfacing, and some of them were converted.
- In the County adopted 2005 Public Spaces Master Plan, the first guidelines for synthetic conversion were developed.
- Today, the County and APS together have 15 synthetic fields.
- The current Adopted FY 2017 – FY 2026 Capital Improvement Plan calls for 4 synthetic turf fields conversions (locations: TBD).

FIELDS INVENTORY



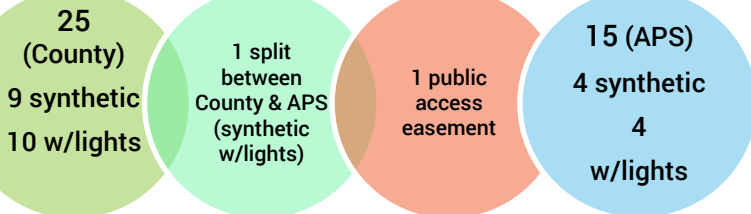
Rectangular Fields

Used For:

- Football
- Soccer
- Lacrosse
- Field Hockey
- Rugby
- Ultimate Frisbee
- Kickball
- Drop-in play

42

Total



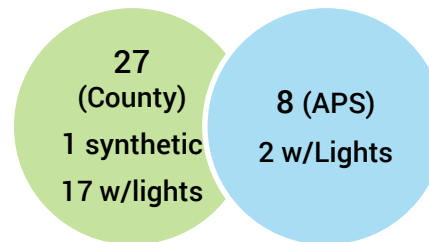
Diamond Fields

Used For:

- Baseball
- Softball
- Kickball
- Drop-in play

35

Total



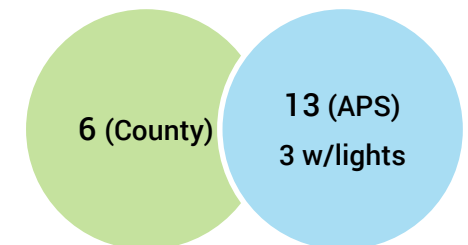
Combination Fields

Used For:

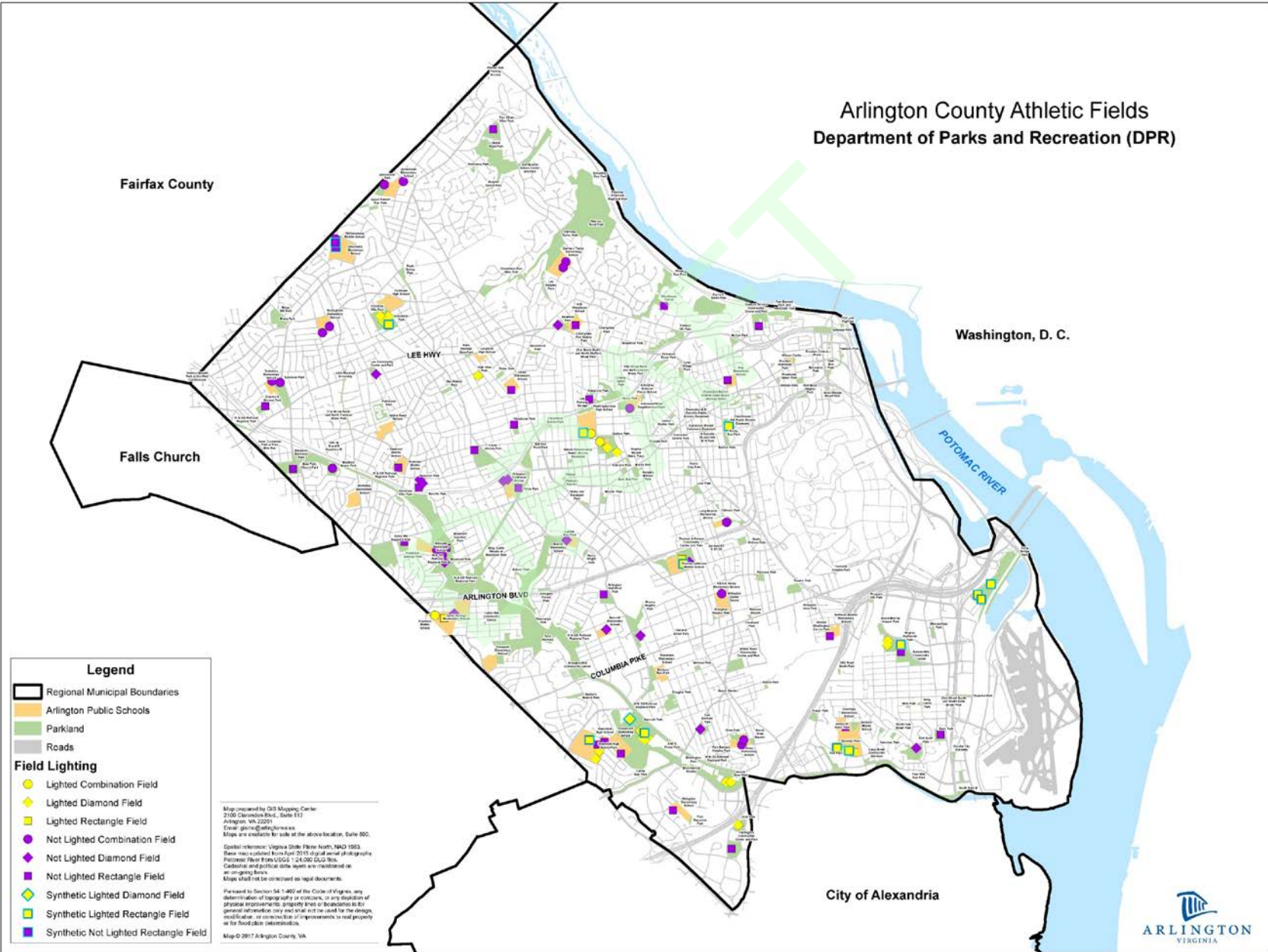
All Diamond & Rectangular Sports
Depending on Season/Time of the Year

19

Total



EXISTING FIELD LOCATIONS



ASSESSING FIELD NEEDS
Field Allocation Policy
Level of Service

ATHLETIC FIELD ALLOCATION POLICY

- **Purpose:** The athletic field allocation policy will provide facility reservations to sport user organizations through an efficient and transparent process.
- **Policy Focus:** Youth & Adult Organizations in Spring & Fall Seasons
- **Policy will take into consideration optimal use with regards to field maintenance standards**
- **Major Policy Components:**
 - **Sport User Organization Definition:** To determine which organizations are considered part of this program
 - **Priority System:** To determine priority allocation scheduling among organizations
 - **Allocation Formula:** Provide a systematic way to determine how much space each organization receives through a defined number of activities per week for a certain time (e.g.; 3 activities at 1-2 hours each)
 - **Out of Season & Tournament Reservation Process:** Define the non-regular season reservation process
 - **New/Developmental Sports Process:** To ensure availability for potential new sports

Impacted Organizations:

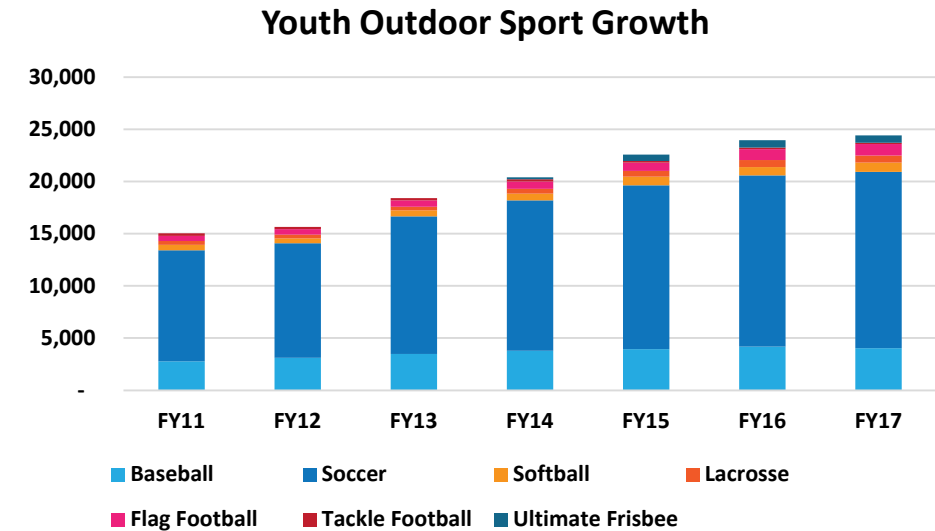
Youth: Arlington Soccer Association, Arlington Girls Softball Association, Arlington Little League, Arlington Cal Ripken Babe Ruth, Arlington Senior Babe Ruth, Youth Ultimate League of Arlington, Arlington Youth Lacrosse, Arlington Youth Football Club, Arlington DPR Flag Football, Arlington Travel Baseball, Australian Footy, Virginia Youth Soccer Association, Washington Area Frisbee Club, American Legion Baseball

Adult: DPR Softball, Arlington Women's Soccer League, United Social Sports, Zog Sports, Bolivian Veteran's League, Bolivian Soccer League, NOVA Coaches League, Old Guys Soccer League, American Soccer League, Pentagon Soccer Club, Gunston Community Soccer League

SPORTS PARTICIPATION COMPARISON

- Sport organization growth continues to require additional field space to accommodate growing leagues and competitive levels.
- Organizations play their main seasons in the spring and fall, making these peak reservation times
- Only youth organizations receive practice time, adults receive reservations for games only
- Field density plays a factor in allocation as multiple teams are asked to practice on each field
- Sunset plays a major factor in field allocation – on non lighted fields organizations can only reasonably schedule until 7:00 in the fall and 8:00 in the spring for the majority of their season (pre and post season impacted greater by sunset)

Outdoor Youth Sports Leagues Participants	FY15	FY16	FY17
Baseball	3,949	4,188	4,032
Soccer	15,677	16,391	16,894
Softball	821	797	893
Lacrosse	557	681	651
Flag Football	803	1,028	1,120
Tackle Football	165	161	128
Ultimate Frisbee	607	715	679
Total	22,579	23,961	24,397



LEVEL OF SERVICE APPROACH

1.4. Use a context-sensitive, activity-based approach to providing amenities.

- context-sensitive: access to amenities could be different in high-density and low-density areas. High-density and low-density areas have different development patterns and correspondingly different expectations for access to amenities, and different level of service can be expected in these contexts
- activity-based: each amenity is treated individually when defining what level of service is being provided

LEVEL OF SERVICE

Population-Based Standards

- How many of a facility does Arlington have per resident?
- How many would we like it to have?

Access Standards

- How close should residents be to a type of facility?
- How does that compare with where the facilities are?



- Where should we add/remove/repurpose facilities?
- Where should we work with partners?
- Where should we advocate for private development of particular facilities?

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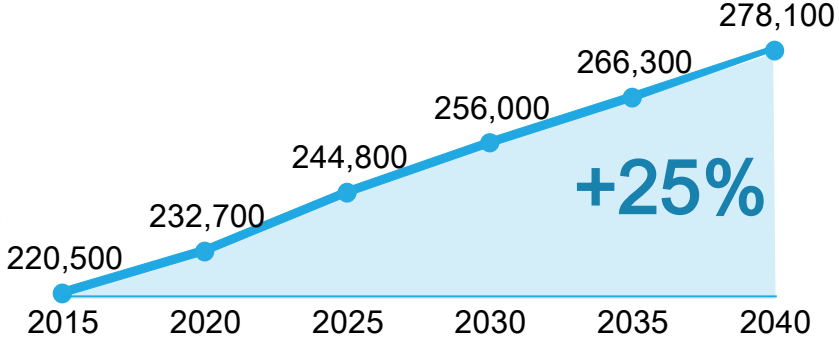
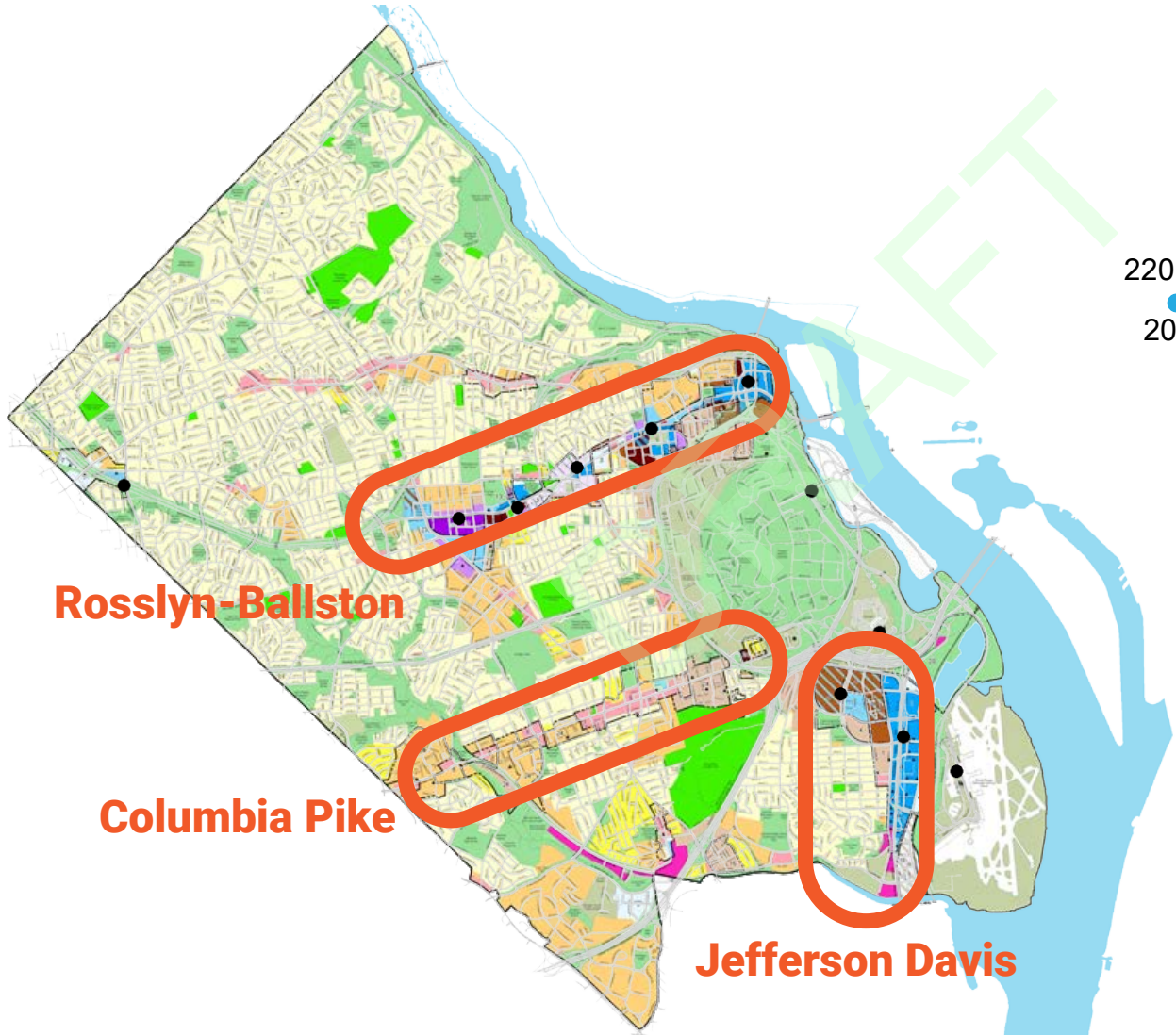
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GENERAL LAND USE PLAN & FORECASTED POPULATION GROWTH



Forecasted population growth

LEVEL OF SERVICE STANDARDS

Amenity

Level of Service

Amenity	Unit	Current	Peer Med.	Typical	Survey Pri.	Recm. Std.
Diamond Fields (includes combination fields)	each ^{1/}	5,153 ^{1/}	4,107 ^{1/}	6,000 ^{1/}	Low ^{1/}	6,000 ^{1/}
Tennis Courts	each ^{1/}	2,408 ^{1/}	3,768 ^{1/}	4,000 ^{1/}	Medium ^{1/}	3,000 ^{1/}
Picnic Areas	each ^{1/}	4,924 ^{1/}	N/A ^{1/}	6,000 ^{1/}	Medium ^{1/}	5,000 ^{1/}
Rectangular Fields (includes combination fields)	each ^{1/}	4,180 ^{1/}	3,643 ^{1/}	6,000 ^{1/}	Medium ^{1/}	4,200 ^{1/}
Volleyball Courts	each ^{1/}	22,156 ^{1/}	N/A ^{1/}	12,000 ^{1/}	Low ^{1/}	20,000 ^{1/}

■ supports raising the current standard ■ > current
■ supports keeping the current standard unchanged ■ ≈ current
■ supports lowering the current standard ■ < current

LEVEL OF SERVICE STANDARDS

Amenity

Level of Service

	Unit	Current	Recm. Std.	2025	2035	2045	Total
Diamond Fields (includes combination fields)	each	43	+0	+0	+2	+4	+6
Tennis Courts	each	92	+0	+0	+0	+5	+5
Picnic Areas	each	45	+0	+4	+5	+4	+13
Rectangular Fields (includes combination fields)	each	53	+0	+6	+5	+5	+16
Volleyball Courts	each	10	+2	+1	+1	+1	+5

■ recommended standard met

■ recommended standard not met

LEVEL OF SERVICE

Population-Based Standards

- How many of a facility does Arlington have per resident?
- How many would we like it to have?

Access Standards

- How close should residents be to a type of facility?
- How does that compare with where the facilities are?

-
- Where should we add/remove/repurpose facilities?
 - Where should we work with partners?
 - Where should we advocate for private development of particular facilities?

ACCESS ANALYSIS (METHOD) DIAMOND FIELDS EXAMPLE

Unit	Current	Recm. Std.	2025	2035	2045	Total
each	43	0	0	+2	+4	+6

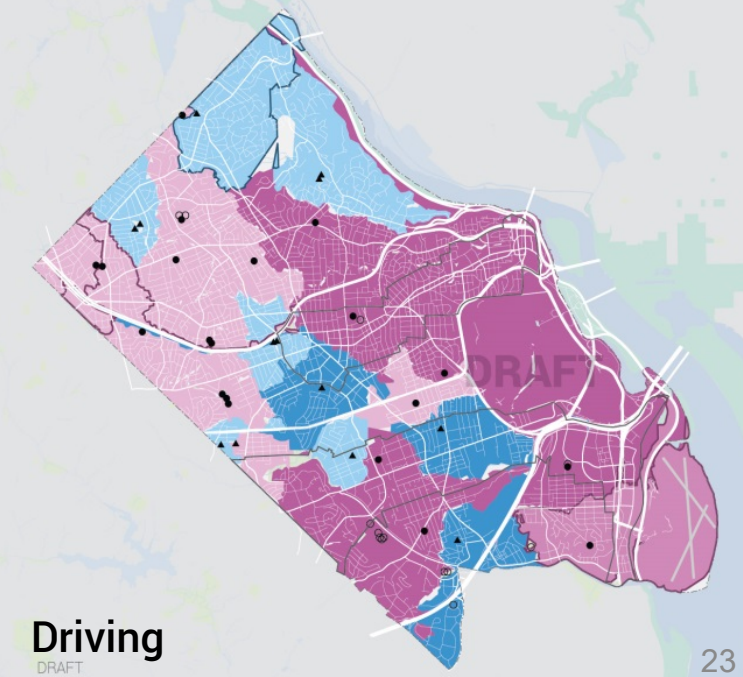
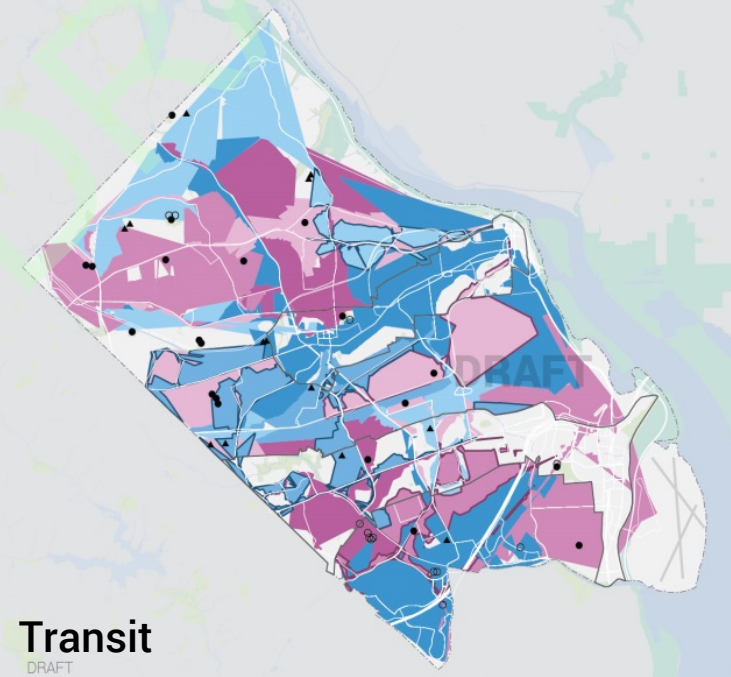
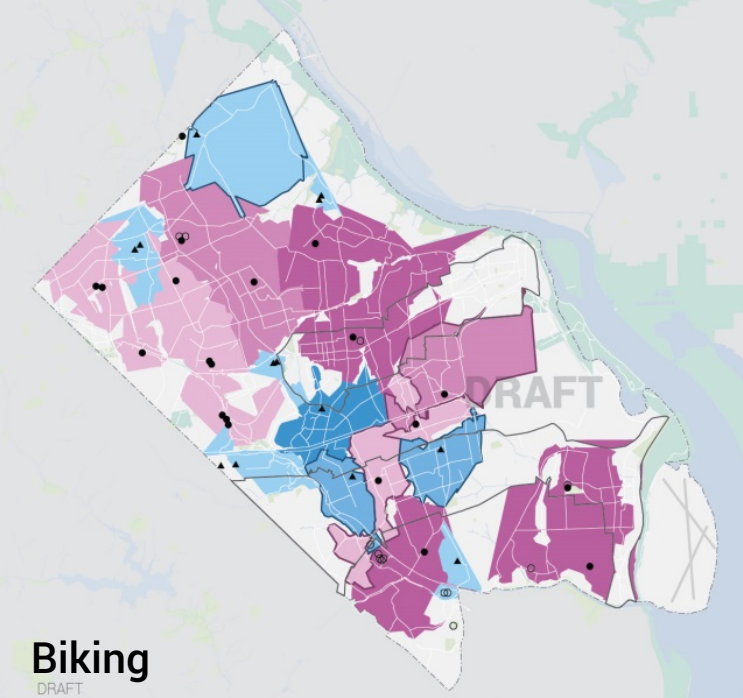
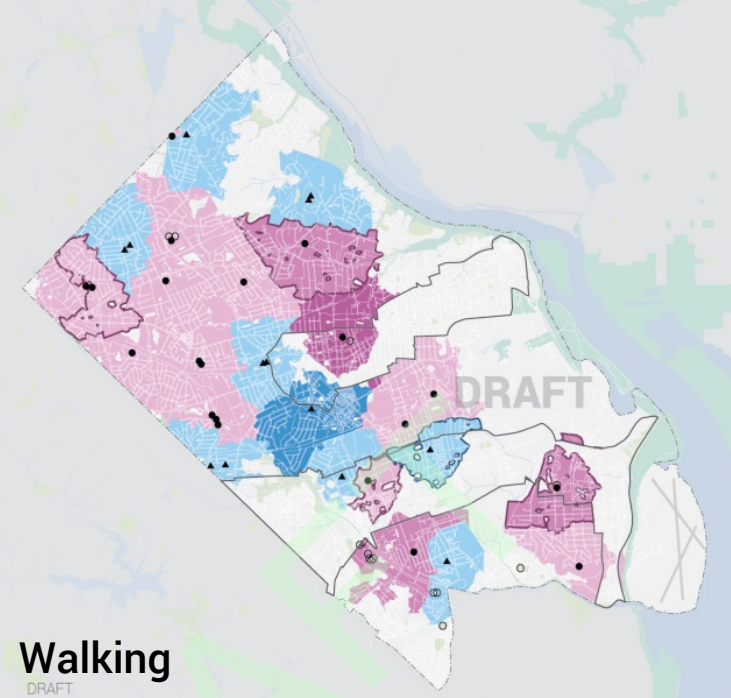
County, NOVA Parks, Public Easement Arlington Public Schools

always publicly accessible *restricted public access at certain times*

- ▲ available for community use
- △ permit only use (service not calculated)
- population < 80% avg.
- population 80-120% avg.
- population > 120% avg.
- 2045 population will change category

Travel Time

High Density Areas 10 min
Low Density Areas 20 min



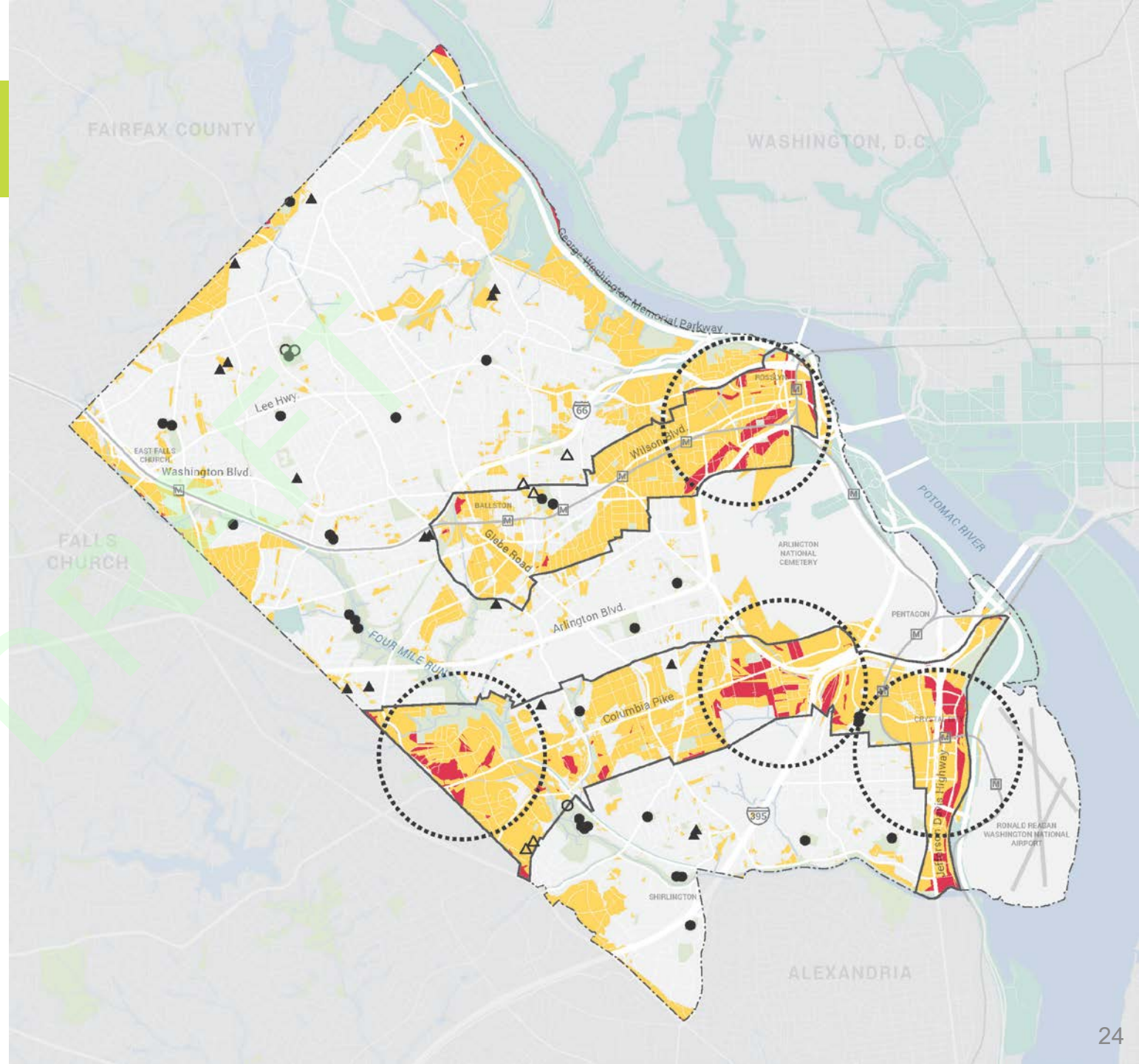
AREAS WITH ACCESS TO DIAMOND FIELDS

Unit	Current	Recm. Std.	2025	2035	2045	Total
each	43	0	0	+2	+4	+6

Access Ranking

- most need (limited access)
- least need (best access)

 potential areas of focus



ACCESS ANALYSIS (METHOD) RECTANGULAR FIELDS EXAMPLE

Unit	Current	Recm. Std.	2025	2035	2045	Total
each	53	0	+6	+5	+5	+16

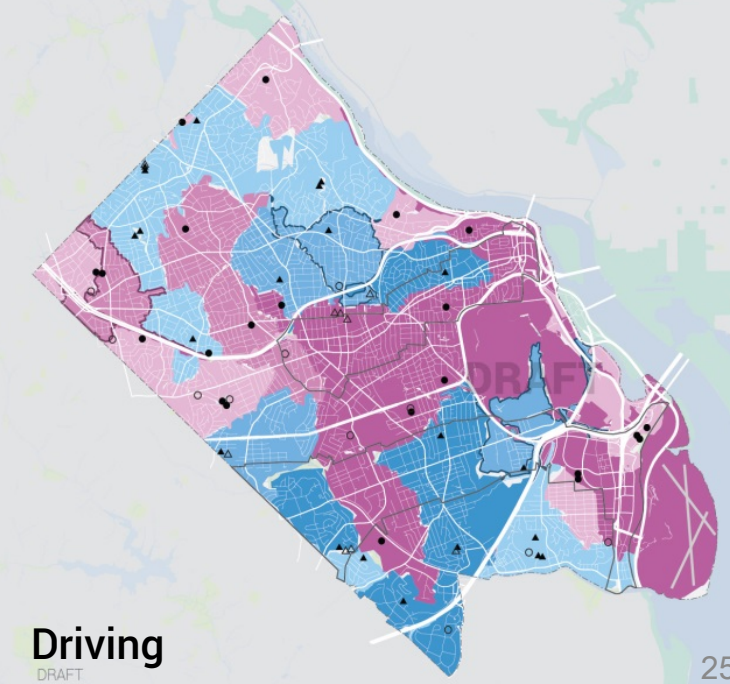
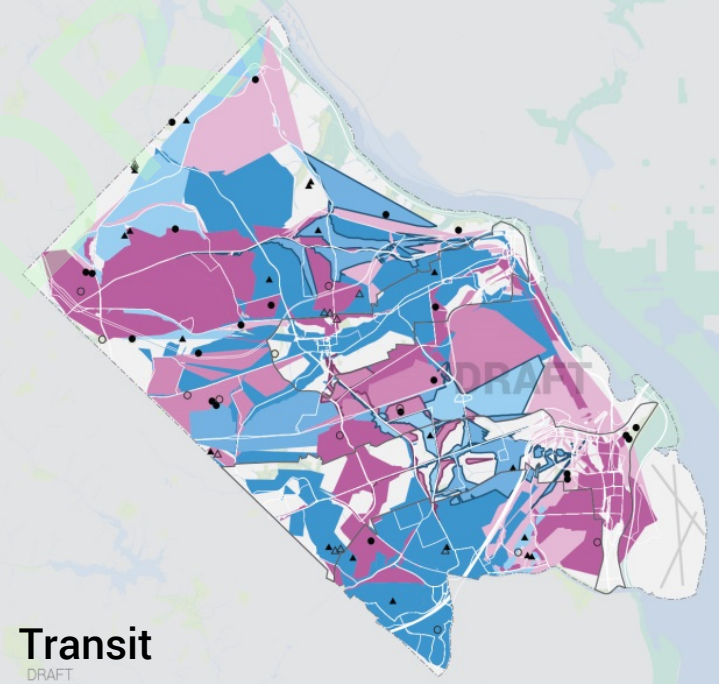
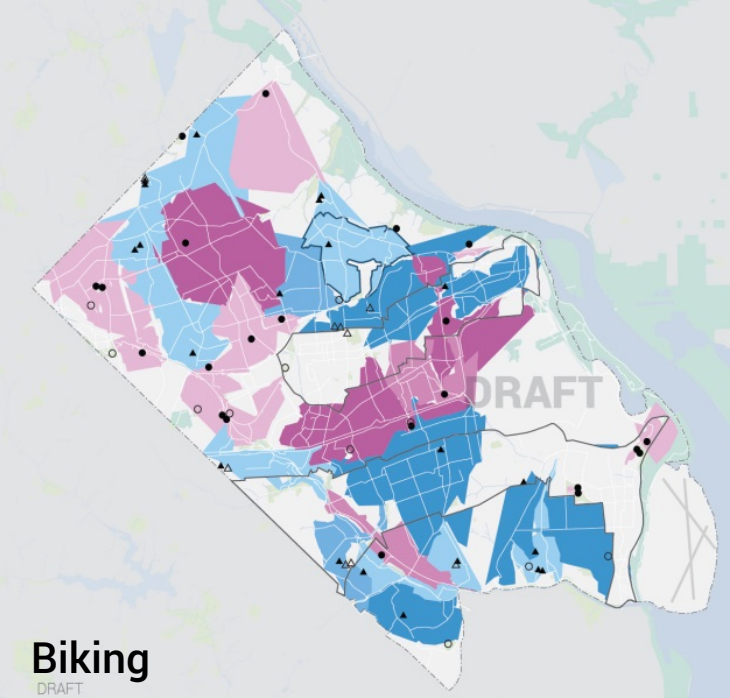
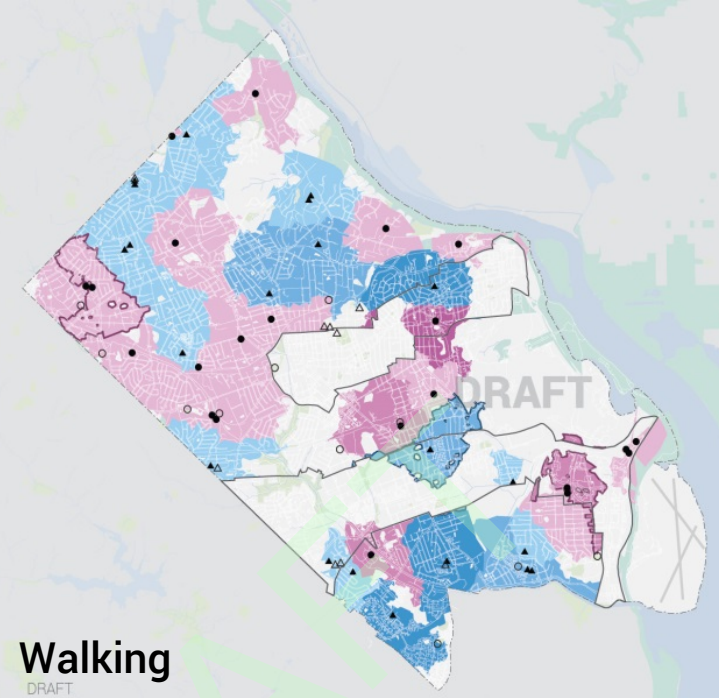
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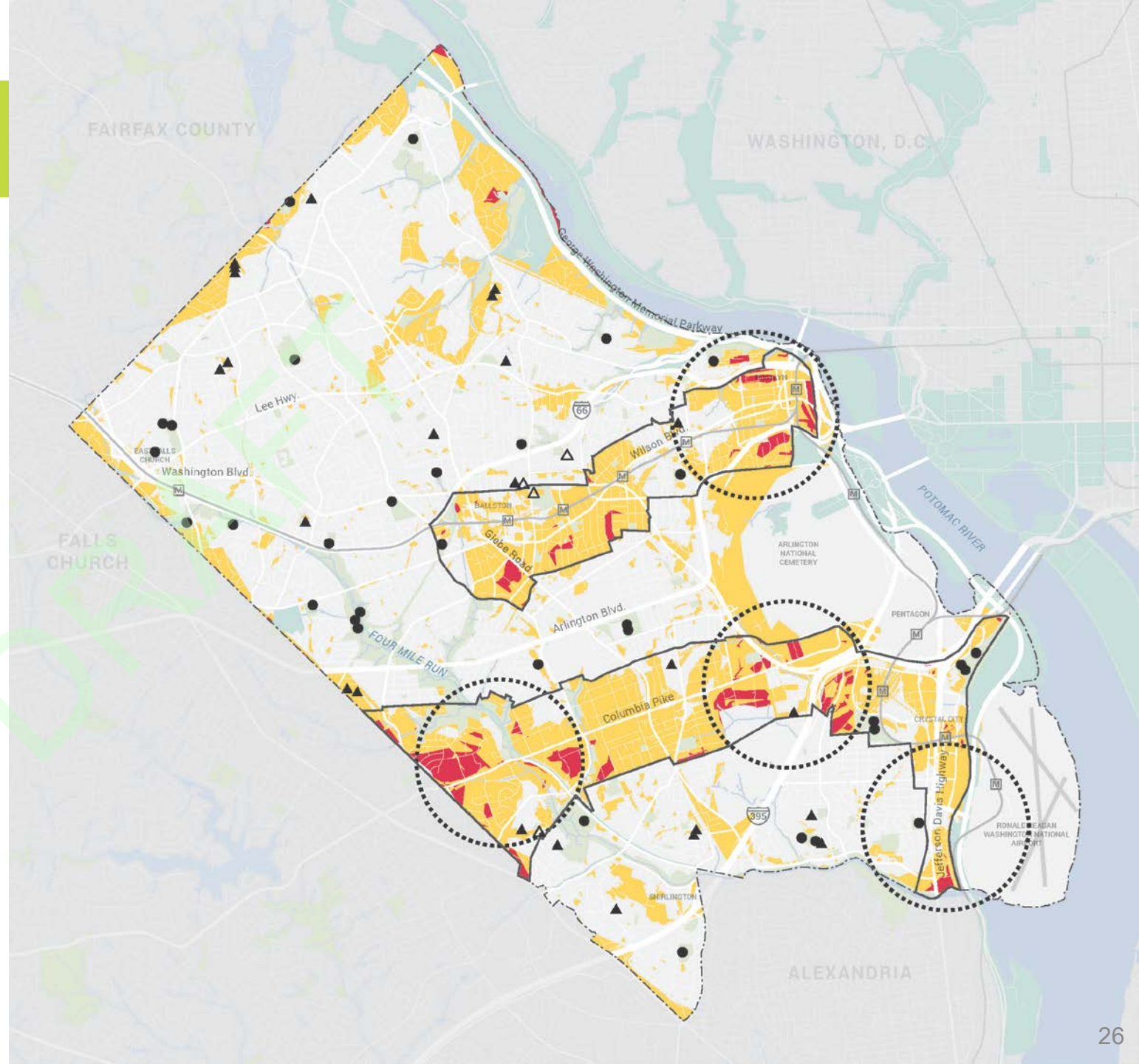
AREAS WITH ACCESS TO RECTANGULAR FIELDS

Unit	Current	Recm. Std.	2025	2035	2045	Total
each	53	0	+6	+5	+5	+16

Access Ranking

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- least need (best access)

potential areas of focus



CURRENT POPS DRAFT – NEEDS ASSESSMENT

6.1.1.

Conduct a public space needs assessment, including a statistically valid survey and level of service analysis, at least every 5 years.

DRAFT

SYNTHETIC CONVERSION & LIGHTING

FIELDS-SYNTHETIC TURF & LIGHTING

Need

- Arlington's fields are heavily used, and demand is growing
- Based on LOS, by 2045 we will need additional 16 rectangular and 6 diamond fields.

(Current POPS Draft)

- 1.2.8. Convert an additional 12 existing rectangular fields and 4 existing diamond fields to synthetic turf as funding is available.
- 1.2.9. Add lighting to synthetic fields and other multi-use fields, according to field lighting guidelines.

FIELDS-SYNTHETIC TURF & LIGHTING

Synthetic Turf Benefits:

- Reduces weather related cancellations
- Reduces maintenance and utility costs (water)
- Improves quality of fields (consistency of playing surface)
- Allows year-round use
- Increases durability

FIELD CONVERSION CRITERIA- PREVIOUS EFFORTS

2003 Synthetic Grass Working Group

CRITERIA TO APPLY TO SPECIFIC FIELDS:

- Size of Field
- Existing Condition of Turf
- Current Field Uses
- Field Lighting Currently Available
- Restroom Facilities (Year-round, Seasonal, Portable) Currently Available
- Off-Street Parking Currently Available
- Site Amenities (Water fountains, paths to Field, Spectator Capacity or Shelters) Currently Available
- Impact to the Environment is Minimal (e.g., Chesapeake Bay Preservation Ordinance, Tree Master Plan)
- Impact of Increased Use on the Immediate Community is Minimal
- Likelihood of Support for Increased Usage
- Potential for Supporting Multiple Uses
- Potential for Conflict Between Uses
- Projected Lifespan of Field
- Likelihood that Field will Relocate/Realign as Part of an Upcoming Master Plan/Redevelopment is Minimal
- Potential for Financial Partners

CRITERIA TO APPLY TO THE OVERALL PRIORITIES:

- Geographic Balance
- Support for Multiple Sports
- Youth – Adult Balance
- Scholastic – Recreational Balance

FIELD CONVERSION CRITERIA- PREVIOUS EFFORTS

2005 Public Spaces Master Plan Recommendations

- Convert a minimum of one natural grass field per year to synthetic grass based on the analysis and recommendations of the 2003 Synthetic Grass Working Group.
- All synthetic grass conversions should have existing lighting or a plan for installing “dark sky” lighting as a part of the synthetic grass installation.
- Continue to explore new technologies and practices for managing and maintaining natural grass athletic fields.

FIELD CONVERSION CRITERIA- PREVIOUS EFFORTS

2017 Williamsburg Field Site Evaluation Workgroup Report

- Lighting should be part of the original master planning for the field
- State of development of the area
- Topography of the surrounding area
- Physical features of the site which may mitigate light spill
- Presence of existing lighting in the immediate area
- Proximity of homes
- Environment Impacts

POPS FIELDS CONVERSION CRITERIA

Goals:

- establish objective + measurable criteria
 - Develop a set of criteria for new synthetic turf conversion that can be objectively applied to all fields
 - Develop a set of criteria for siting of new field lighting
 - Develop a set of lighting standards
- Develop a list of priority candidates for conversion to synthetic & lights

Process:



FIELDS-DRAFT SYNTHETIC TURF CONVERSION CRITERIA

- **Started with:**
 - 2003 Report
 - 2005 PSMP
 - 2017 Williamsburg Field Site Evaluation Workgroup Report
- **Grouped into:**
 - General
 - Site Amenities & Investment
 - Environmental Context
 - Location & Context

DRAFT SYNTHETIC TURF CONVERSION CRITERIA

General

1. Does the field meet the minimum size requirement?

Examples:

- Rectangular Field: Barcroft Park (Field #5)
- Diamond Field: Barcroft Park (Field #1)
- Combination Field: Jamestown Back Field

2. Has the field been identified as a synthetic field in a County Board adopted plan?

3. The site has not been identified for school or public facility expansion?

DRAFT SYNTHETIC FIELDS CONVERSION CRITERIA

Site Amenities & Investment

4. Is the field already lit?
5. Are there existing, or planned in the CIP, year-round restroom facilities with public access during the times of the field use?
6. Are there existing, or planned in the CIP, ADA accessible pathways to the field?
7. Does the financial (cost sharing) partnership with APS or another partner exist?
8. Is the field used for scholastic sports programs?
9. Is this a community field?

DRAFT SYNTHETIC FIELDS CONVERSION CRITERIA

Environmental Context

10. Is estimated disturbance to the trees and tree roots associated with surrounding trees minimized?

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DRAFT SYNTHETIC FIELDS CONVERSION CRITERIA

Location & Context

11. Is the field located in an area identified in the POPS access analysis (LOS) as areas where access gaps exist for this type of amenity?

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FIELD LIGHTING

Field Lighting Benefits:

- Extends the number of hours of play (lighting is critical to achieve this)
- Allows more community benefits

	No Lights	Lights
Grass	700	900
Synthetic	1,400	2,100+

FIELD LIGHTING (DRAFT CRITERIA)

New Lighting Siting Criteria:

1. Is the field already synthetic?
2. Is this a community field?
3. Has the field been identified as a lighted field in a County Board adopted plan?

FIELD LIGHTING (DRAFT STANDARDS)

New Lighting- Standards:

- A. A minimum of 25 feet shall exist between the edge of the field and the property line of the adjacent residential properties.
- B. The proposed lighting shall not increase the pre-existing normal, ambient light levels at the property line adjacent to residential properties by more than 0.5 foot-candles.
- C. LED or any other advanced lighting systems should be used to achieve efficiency, light uniformity and visual comfort while minimizing light spillage.
- D. The above requirements shall apply to athletic fields adjacent to residential uses.
- E. Illuminance Levels for recreation, High School and Stadium fields.

Illuminance Levels	Foot Candles
Recreational Fields: <ul style="list-style-type: none">- Rectangular- Diamond	30 fc. 50 fc. Infield, 30 fc. Outfield
High School, College & Stadium Fields <ul style="list-style-type: none">- Rectangular- Diamond	50 fc. 100 fc. Infield, 50 fc. Outfield

If lighting is proposed for athletic fields not meeting the above requirements, a proposal to provide athletic field lighting may be considered through a separate process.

FIELD LIGHTING

Potential Mitigation Measures:

1. glare and spill reduction techniques:

- shielding
- dimming controls
- wattage
- mounting height
- aiming angles

2. design techniques:

- planting
- other physical buffers

3. operational techniques:

- such as curfews
- limiting special events
- staff presence
- no use of amplification
- seasonally-adjusted hours

4. community agreements and standing committees:

- Formal Memorandum of Agreement with community organizations
- Regular meetings

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NEXT STEPS

POPS NEXT STEPS (ANTICIPATED)

- **January/February 2018**
 - County Board Work Session
- **March/April**
 - Revised/final POPS draft posted online
- **April 2018**
 - Final Public Outreach
- **April-June 2018**
 - Commission Reviews
- **Fall 2018**
 - CB Review/Approval

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THANK YOU!