

Career Center Working Group

Meeting #14: June 25, 2018

Transportation

Robert Gibson, Angie de la Barrera, Department of Environmental Services (DES)
Kristin Haldeman, Multimodal Transportation Planning (APS)



Outline

1. Staff Presentation [30 mins]
 - A. Transportation Objectives
 - B. Existing Conditions
 - C. Planned Transportation Projects
 - D. Adopted Policies
2. Q & A [20 mins]
3. Break [10 mins]
4. Group Discussions [90 mins]
 - A. Parking
 - B. Break
 - C. Site Circulation

TRANSPORTATION OBJECTIVES

Role of Transportation in CCWG – Adopted Charge

KEY PARAMETERS (P.1, 2):

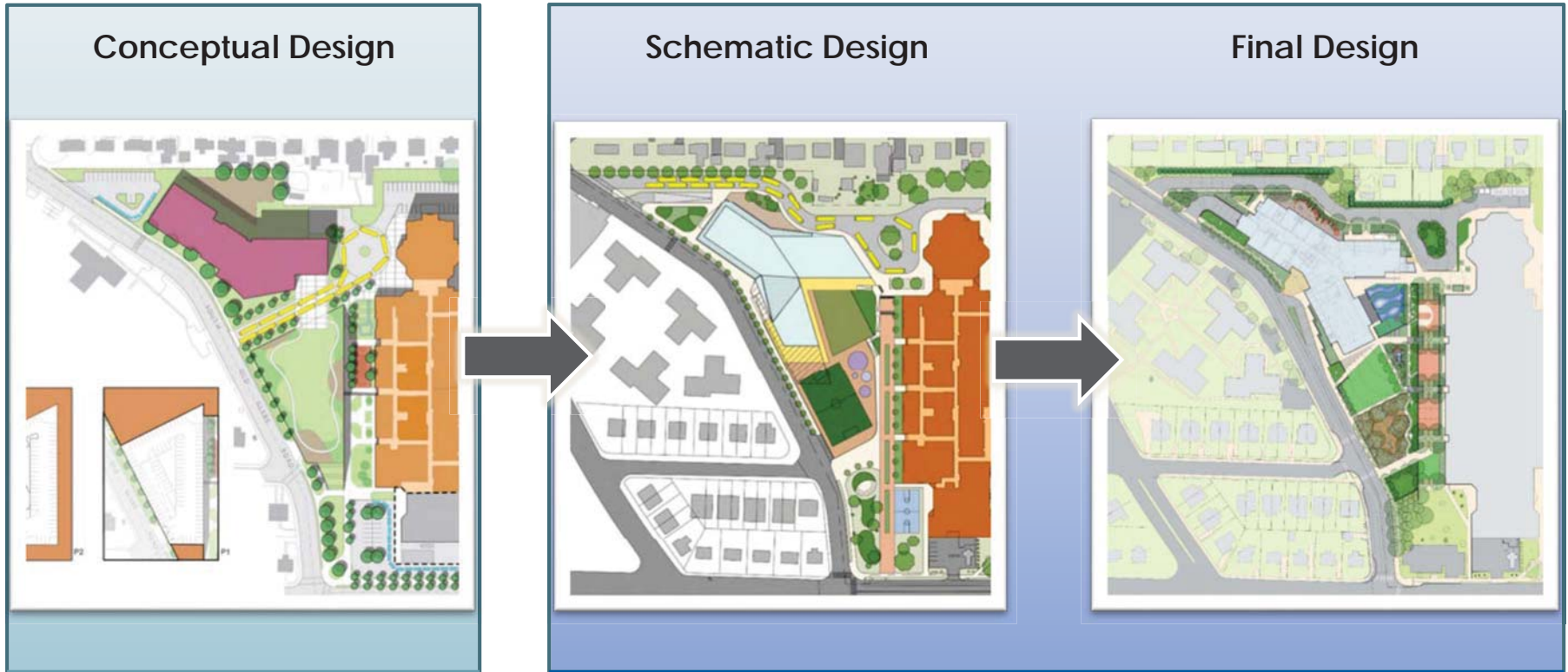
The options for phased development shall comply with the County's adopted goals and policies on parks and open space, land use, **transportation, parking**, accessibility, energy, sustainability and the environment, public safety and education, and others as applicable.

TRANSPORTATION & PARKING GOALS (P.3):

Develop a vision for a comprehensive transportation and parking plan for the Career Center site.

- Develop parking solutions that comply with County parking standards; consider options such as structured parking and leased parking at nearby sites that meet County, APS and community needs.
- **Plan for a robust Transportation Demand Management (TDM) program** by:
 - Evaluating how the transit-rich conditions in neighborhood surrounding the Career Center could lead to a **new model for transit to the site and its school**. Analyze the impact of a new transit model for users, particularly students, staff and families, as well as the community, to take full advantage of transit-rich conditions. Consider and make recommendations to future BLPCs and PFRCs about how to balance opportunities for enhanced Transportation Demand Management with the transportation needs of instructional programs at the Career Center, which require off-site internships and work experience, and the older student demographic at the on-site programs.

Iterative Approach to Addressing Transportation Issues



*Career Center
Working Group
Vision & Overall Approach*

*Building Level Planning Committee/
Public Facilities Review Committee
Detailed Analysis and Specific Solutions*

Role of Transportation in Future Processes – BLPC/PFRC

Career Center Working Group	Building Level Planning Committee (BLPC)/ Public Facilities Review Committee (PFRC)
Overall vision for parking and transportation	Travel Demand (Parking, Trip Generation, Different ways by which people arrive at the site)
Policy guidance for APS & County	Traffic Operations (broader neighborhood)
Considerations for future study and analysis for subsequent reviews	Evaluation of Pedestrian & Bicycle Facilities (sidewalks, cross-walks, other infrastructure and facilities)
	Transportation Demand Management (Arrival & Dismissal Times, Performance & Monitoring,

Sample Recommendations from TJ Working Group

“Any school development should require a comprehensive transportation solution which, among other points:

- a. Reduces the impacts of traffic flow in the surrounding community;
- b. Increases safety, convenience and connections to the site for walkers and cyclists;
- c. Provides efficient school bus access as well as parent-drop offs on the site in a manner that improves traffic conditions for residents and commuters as well as school-related travelers; and
- d. Provides for periodic APS/County review and adjustments of traffic patterns and controls if needed to address problems.”

EXISTING CONDITIONS

Existing Conditions



7th Street S.



S. Walter Reed Drive



S. Highland Street

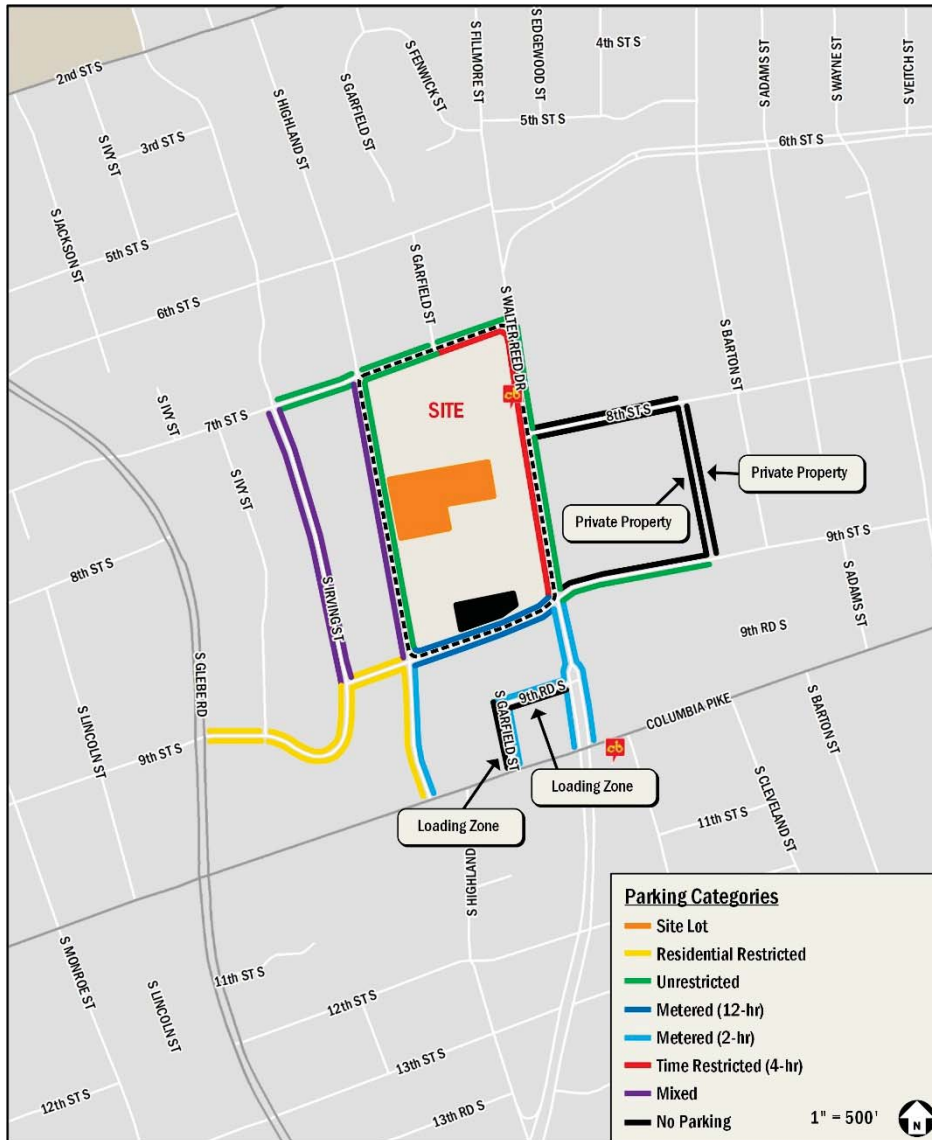
Existing Conditions – Traffic Intersection Analysis



Intersection	Approach	Existing (2018)			
		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. S Highland Street & 7th Street S	Eastbound	2.3	A	0.3	A
	Westbound	0.8	A	0.6	A
	Northbound	14.5	B	12.5	B
	Southbound	13.2	B	11.2	B
2. S Walter Reed Drive & 7th Street S	Overall	11.8	B	9.7	A
	Eastbound	25.8	C	25.7	C
	Northbound	11.2	B	4.2	A
	Southbound	6.1	A	10.1	B
3. S Highland Street & 8th Street S	Westbound	9.4	A	9.5	A
	Northbound	0.0	A	0.0	A
	Southbound	0.0	A	0.1	A
4. S Walter Reed Drive & 8th Street S	Westbound	27.4	D	29.1	D
	Northbound	0.3	A	0.8	A
	Southbound LT	1.3	A	0.9	A
5. S Highland Street & West Site Driveway	Westbound	10.1	B	9.9	A
	Northbound	0	A	0	A
	Southbound	5.5	A	2.2	A
6. S Walter Reed Drive & East Site Driveway	Eastbound	27.1	D	26.5	D
	Northbound	1.9	A	1.1	A
	Southbound	0	A	0	A
7. S Highland Street & 9th Street S	Eastbound	10.4	B	10.3	B
	Westbound	11.0	B	11.5	B
	Northbound	0.4	A	1.1	A
	Southbound	1.4	A	0.9	A
8. S Walter Reed Drive & 9th Street S	Eastbound	54.5	F	27.6	D
	Westbound	34.5	D	38.1	E
	Northbound	0.3	A	0.9	A
	Southbound	2.1	A	1.7	A
9. Columbia Pike & S Highland Street	Overall	7.8	A	14.2	B
	Eastbound	6.4	A	6.8	A
	Westbound	3.7	A	14.8	B
10. S Walter Reed Drive & Columbia Pike	Northbound	49.7	D	45.7	D
	Southbound	50.5	D	48.7	D
	Overall	34.8	C	30.1	C
	Eastbound	26.9	C	30	C
	Westbound	17.6	B	21.9	C
	Northbound	48.7	D	30.4	C
	Southbound	41.6	D	44.7	D

Source: Traffic data collected by Gorove Slade in May 2018

Existing Conditions – Parking Study Area/Type



Parking Types Studied

“Side Lot” (Main Surface Lot)

On-Street Parking:

Residential Restricted (PPP)

Unrestricted

Metered (12-hour)

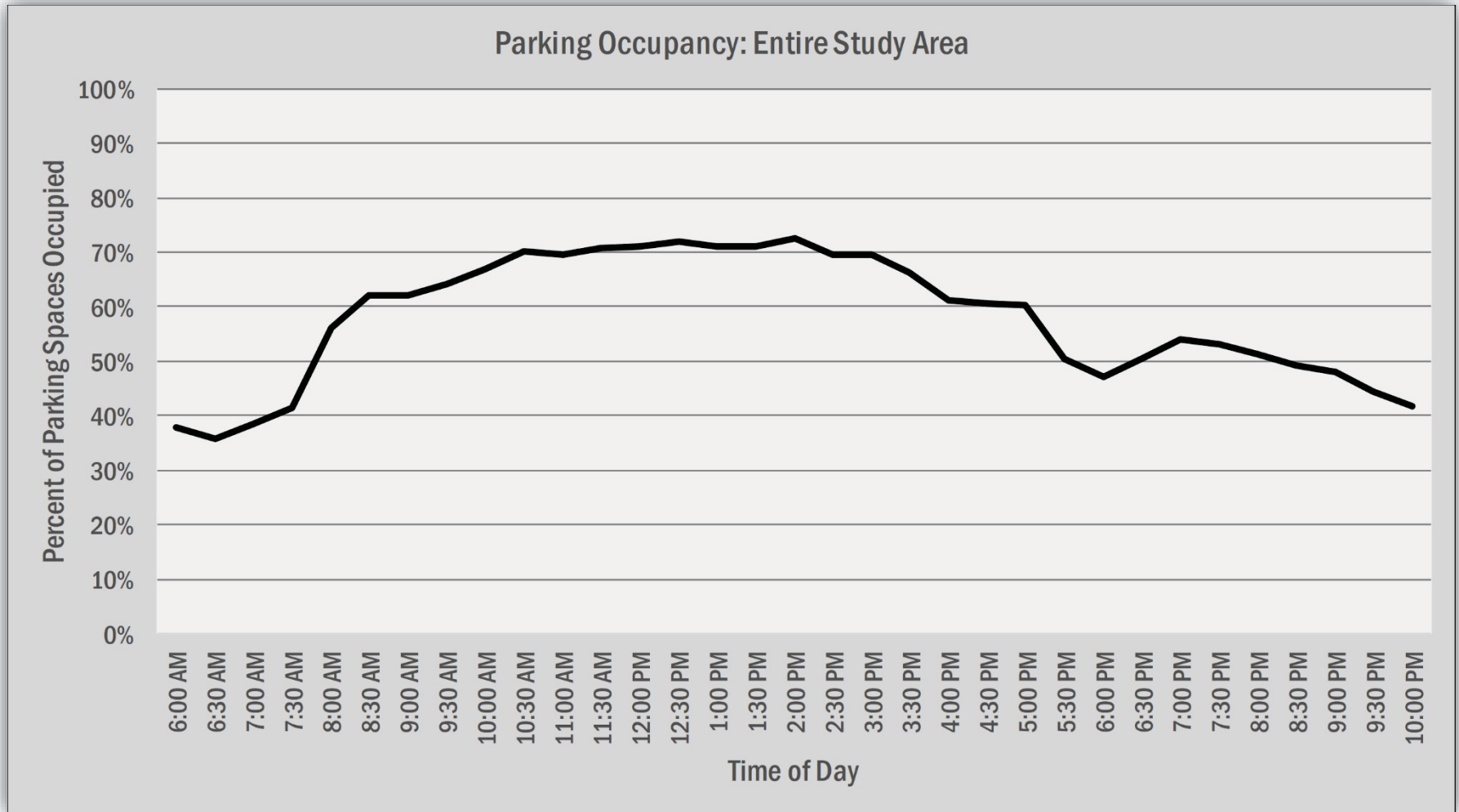
Metered (2-hour)

Time Restricted (4-hour)

Mixed

“No Parking” (Shop Vehicles)

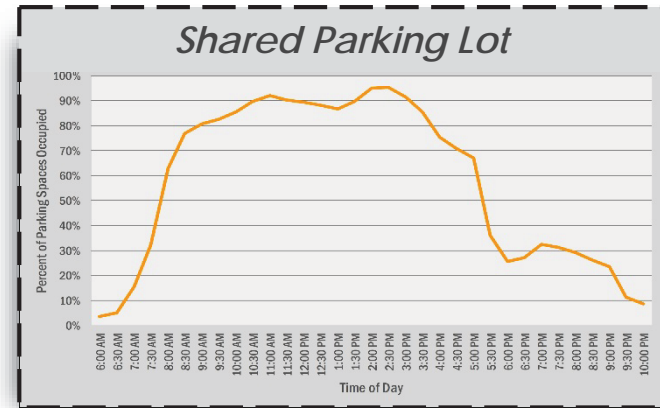
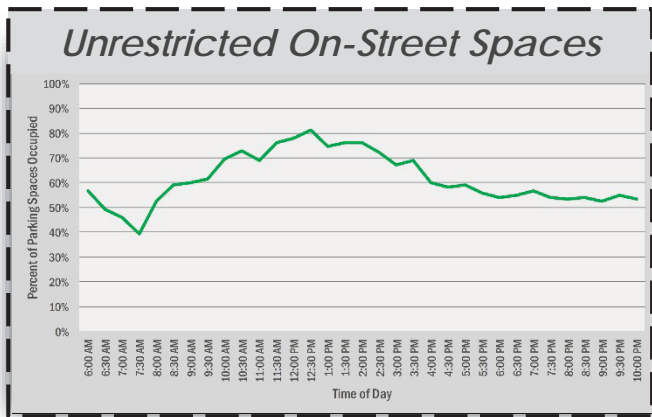
Existing Conditions – Peak Parking Occupancy – All Studied Areas



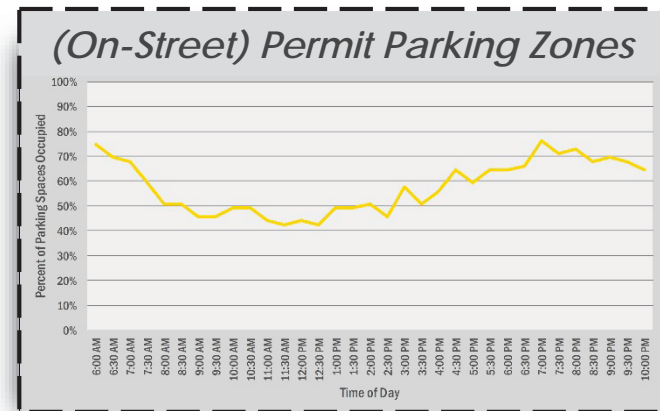
*When on and off-site parking was considered, peak occupancy was just over **70%** during a typical weekday*

Existing Conditions – Peak Occupancy by Type

Similar Peak Utilization



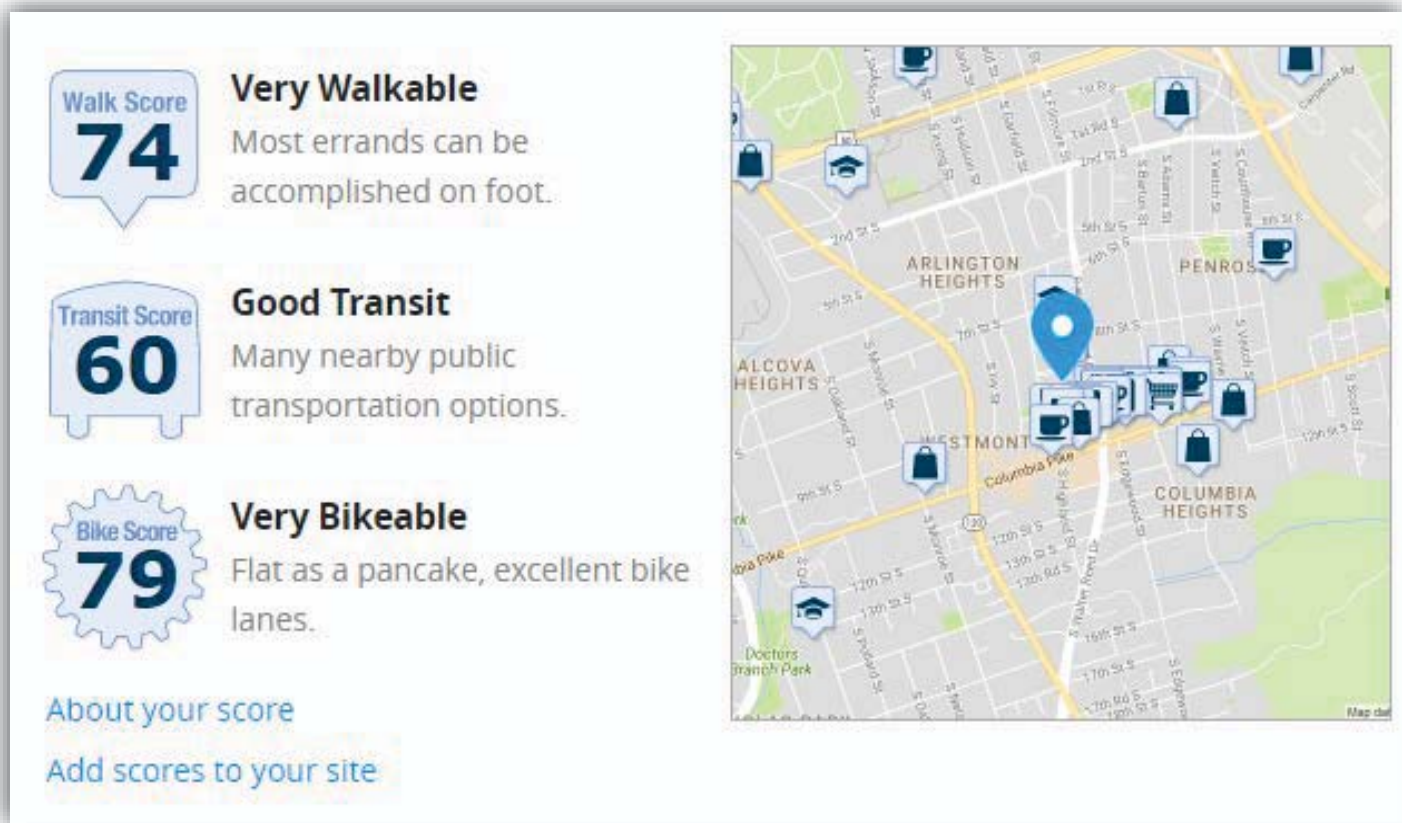
Opposite Peak Utilization



Existing Conditions – Overall Parking Supply



Existing Conditions – Walk/Bike/Transit Assessment



PLANNED TRANSPORTATION PROJECTS

Planned Transportation Projects – Walter Reed Drive

Planned Roadway Improvements Include:

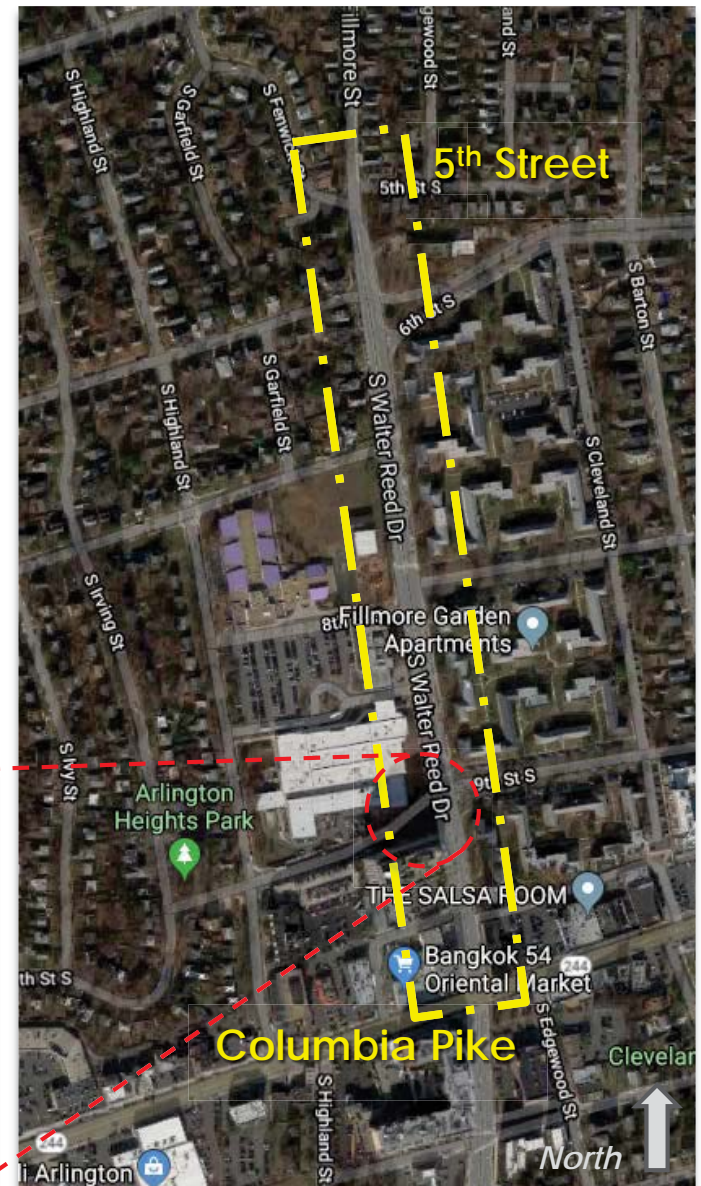
- Redesigns of key intersections and driveways
- New bus stops
- Landscaping in the raised medians
- Intersection nubs and drainage enhancements
- New pavement markings & signage
- Replacing cracked sections of sidewalk

Project Schedule:

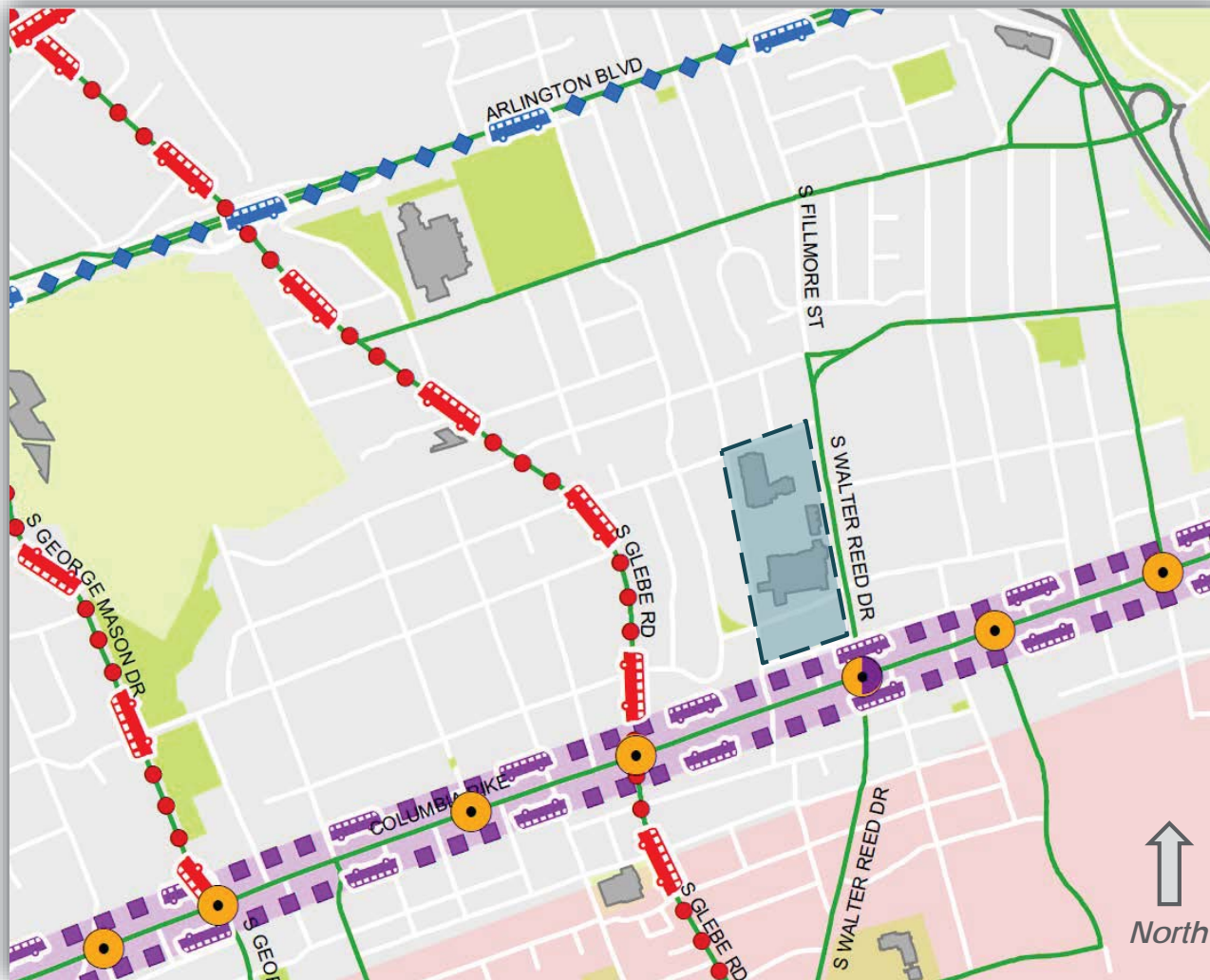
- Dependent on easement acquisition & funding
- Currently at 60% design completion

Project Website:

<https://projects.arlingtonva.us/projects/south-walter-reed-drive-complete-street/>



Existing Conditions – Premium Transit Network



 Study Area

Legend

Limited-Access Routes



High-Occupancy-Incentive Corridors



Neighborhood Streets

Other Streets

Pedestrian Priority Streets

Flexible Transit Zones



Public Parks




Federal-Owned Lands





Potomac River





Transit Networks

 Transit Stations - Existing and Proposed


 Premium Transit Network


 Express Bus Corridor


 Primary Transit Network


 Secondary Transit Network


Public Transportation Facilities


 Existing


 Planned


 Virginia Railway Express

 Metro Station

 Metro Blue Line

 Metro Orange Line

 Metro Silver Line

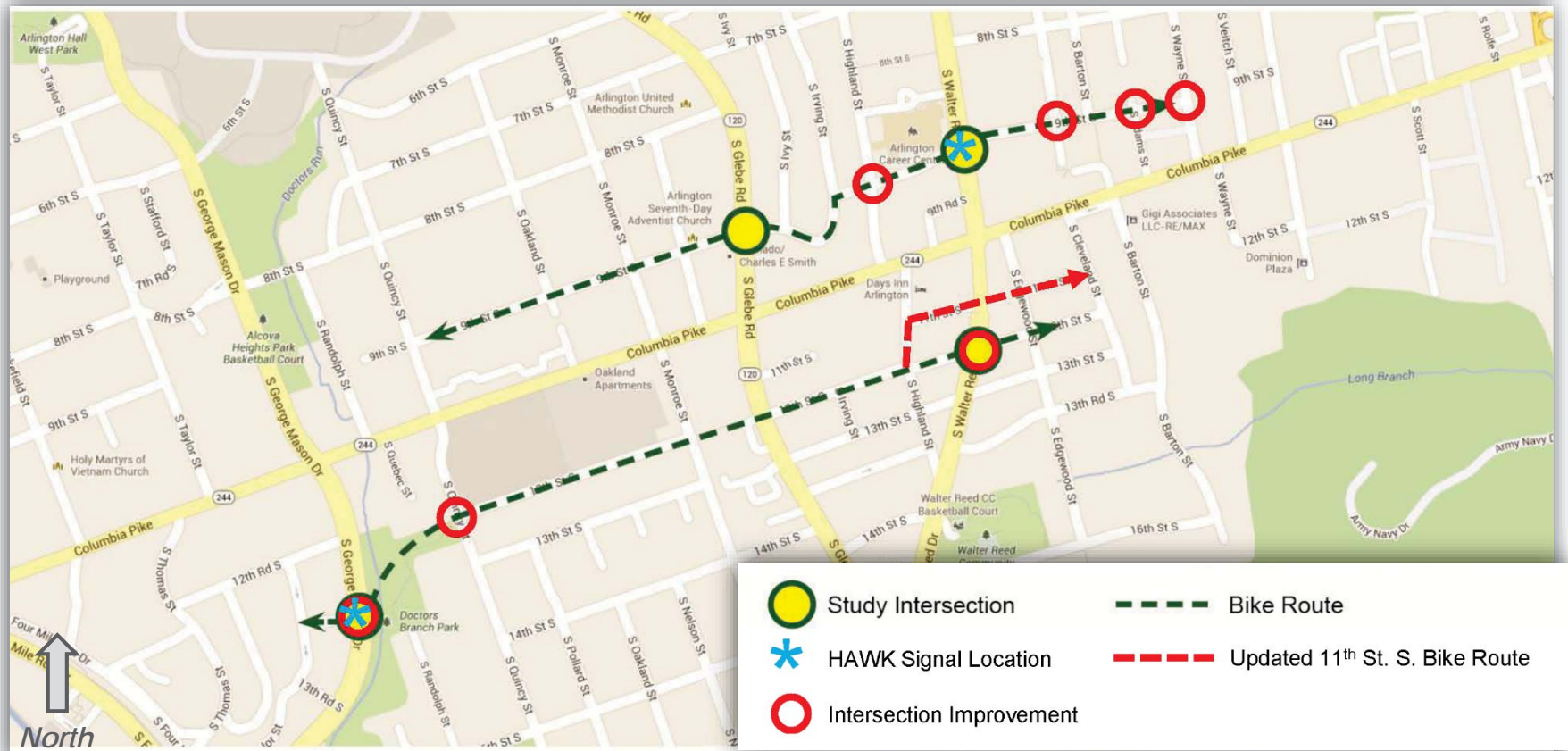
 Metro Yellow Line



North

Planned Transportation Projects – Bike Boulevards

Planned bicycle and pedestrian improvements along 9th and 12th Streets



- Signs and pavement markings along 9th and 12th Streets were completed in 2013
- Improvements along 9th Street intersections were completed in 2017
- Work on Walter Reed Drive and 12th Street improvements is anticipated to start in mid-2018

ADOPTED POLICIES

Adopted Policies - County

Master Transportation Plan | **Pedestrian Element**

- Emphasize projects within priority pedestrian zones near schools
- Construct missing sidewalks/street crossings within school walking zones

Master Transportation Plan | **Streets Element**

- Utilize principles of Safe Routes to School in designing and operating streets near schools

Master Transportation Plan | **Bicycle Element**

- Enhance bicycle facilities providing access to schools
- Conduct an ongoing “safe bicycle route to schools” program with educational courses

Master Transportation Plan | **Demand and System Management Element**

- Ensure all Arlington schools include TDM plans and measures
- Maximize sharing of parking spaces by various users on school parking lots

Adopted Policies – APS

Policy 50.1.1 Transportation Demand Management

School Board Policy statement (addressing both staff & students):

Arlington Public Schools recognizes the impact of school facility traffic and parking on the environment and on neighborhoods surrounding APS facilities. The School Board encourages and supports efforts to **reduce traffic and parking demand** at its facilities.



Adopted Policies – APS Policy Implementation 50.1.1

Policy

- **Staff TDM** – encourages staff to use non-drive alone modes; directs Superintendent to implement incentives to assist
- **Student TDM** – states that limited parking spaces will be provided; Students encouraged to use non-drive modes
- **Relationship to Neighbors** – consider neighbors' concerns about traffic and parking related to schools; share facilities

Policy Implementation Procedures (PIP)

- Speaks to provision and management of parking at school sites
- Prioritizes for whom parking is provided
- Outlines Staff and Student focused TDM measures Superintendent may implement to reduce need for parking



Group Discussion 1: PARKING

Zoning Ordinance – S3-A Special District

Article 4.2: S3-A, Special District

- County Board may, subject to a use permit approval, **modify number of required parking spaces and/or permit off-site parking to be used**, as provided and subject to the findings set forth in Article 14.3.7.C

Article 14.3.7.A: Required parking standards

Use Types		Minimum Parking Requirement (spaces)	Additional Requirements
Public, Civic and Institutional uses			
	Nursery	1 per each staff member or employee	Plus 1 space for each 10 fixed seats, or other vantage accommodation for spectators, for public assembly; plus 1 per 50 sq. ft. of floor area for auditoriums, multipurpose rooms, gymnasium or other facilities used for public assembly but having no fixed seating arrangement specified
Schools	High	1 per each 10 students of design capacity	
Schools	Elementary and middle	1 per each 7.5 students of design capacity for employee parking	

Article 14.3.7.C: Findings necessary to consider parking modifications by CB:

- Modifications will preserve or create recreational facilities
- A transportation demand management plan demonstrates that the potential adverse impacts from modifications will be **mitigated by utilizing available on-street spaces adjacent to the site and through implementation of off-site parking, utilizing shared parking program, and implementation of TDM strategies to offset parking demand**

Calculating Parking Requirements – APS High Schools

Step 1: Evaluation of three unique conditions:

- A. Number of Students
- B. Size of Assembly Space (fixed seating)
- C. Size of Gymnasium (non-fixed seating/multi-purpose)

	(A) STUDENTS		(B) ASSEMBLY SPACE		(C) GYMNASIUM		"Additive" Requirement
	Fall 2018 Capacity	Required Parking	Auditorium Seating	Required Parking	Gymnasium Square Feet	Required Parking	
Wakefield	2,203	221	521	53	21,633	433	707
Washington-Lee	2,208	221	795	80	16,305	327	628
Yorktown	2,189	219	580	58	16,500	330	607
HS Requirement	1 space / 10 students*		1 space / 10 seats		1 space / 50 Gross Sq. Ft.		

* Used to determine parking need for all users (not just students)

"Additive" Requirement fails to take into consideration that each of the three requirements do not occur simultaneously. Therefore, only the highest of these requirements is utilized as a starting point before any TDM strategies are applied.

Using TDM to Reduce Parking Requirements – APS High Schools

Step 2: Assess **TDM** measures available to reduce parking demand

	Walk Score	Transit Score	Bike Score	Bicycle Parking Provided On-Site
Wakefield	31	57	71	304
Washington-Lee	65	73	82	90
Yorktown	62	41	74	98

Transportation Demand Management (TDM) describes a suite of programs and services that provide information, incentives, resources, and support to people so they can make the best possible use of available transportation options, increase the use of alternative transportation and reduce traffic congestion.



Calculate Final Parking Requirements – APS High Schools

Step 3: Determining Necessary Parking Supply

	2018 Student Capacity (seats)	Vehicular Parking Provided On-Site	Resulting Parking Ratio (from available on-site spaces)
Wakefield	2,203	287	1 space/7.7 seats
Washington-Lee	2,208	416	1 space/5.3 seats
Yorktown	2,189	257	1 space/8.5 seats

Career Center Site TDM Considerations – 2018 Conditions

	Walk Score	Transit Score	Bike Score	Bicycle Parking Provided On-Site	Vehicular Parking Provided On-Site
Wakefield	31	57	71	304	287
Washington-Lee	65	73	82	90	416
Yorktown	62	41	74	98	257
Career Center (2018)	74	60	79	50	245



Article 14.3.7.C: Findings necessary to consider parking modifications by County Board:

- Modifications will preserve or create recreational facilities
- A transportation demand management plan demonstrates that the potential adverse impacts from modifications will be **mitigated by utilizing available on-street spaces adjacent to the site and through implementation of off-site parking, utilizing shared parking program, and implementation of TDM strategies to offset parking demand**

Applying Process to Career Center Site – Near Term

Step 1: Evaluation of unique parking requirements (totaling 725 spaces)

	STUDENTS		ASSEMBLY SPACE		GYMNASIUM		"Additive" Requirement
	Near Term Capacity	Required Parking	Auditorium Seating	Required Parking	Gymnasium Square Feet	Required Parking	
Career Center *	1,850	185	800	80	16,300	327	592
Community HS	200	20					20
Montessori	460	(62+12)					74
Public Library	19,400 SF	39					39

Notes:

- Career Center includes the following seats: 800 new HS seats, 600 Arlington Tech, 300 CTE Program, and 150 Other Programs.
- Parking Requirements are based on S3-A Zoning Minimum Standards:
 - High School: 1 space/10 students; 1 space/10 (fixed) seats; 1 space/50 Gross Sq. Ft. (gym)
 - Elementary School: 1 space/7.5 students; 1 space/40 students (for visitors)
 - Public Library: 1 space/500 Gross Sq. Ft.
- "Additive" Requirement fails to take into consideration each of the three requirements do not occur simultaneously. Therefore, only the highest of these requirements is utilized as a starting point, before any TDM strategies are applied.

Applying Process to Career Center Site – Long Term

Step 1: Evaluation of unique parking requirements (totaling 657 spaces)

	STUDENTS		ASSEMBLY SPACE		GYMNASIUM		"Additive" Requirement
	Long Term Capacity	Required Parking	Auditorium Seating	Required Parking	Gymnasium Square Feet	Required Parking	
Career Center *	2,500	250	800	80	16,300	327	657

Notes:

- Career Center includes the following seats: 1,450 new HS seats, 600 Arlington Tech, 300 CTE Program, and 150 Other Programs.
- Parking Requirements are based on S3-A Zoning Minimum Standards:
 - High School: 1 space/10 students; 1 space/10 (fixed) seats; 1 space/50 Gross Sq. Ft. (gym)
- "Additive" Requirement fails to take into consideration each of the three requirements do not occur simultaneously. Therefore, only the highest of these requirements is utilized as a starting point, before any TDM strategies are applied.

Adopted Policies – Zoning Ordinance (S3-A)

WILSON SCHOOL CASE STUDY

	(A) Students		(B) Assembly & Gymnasium Space	(C) Visitors	"Additive" Requirement
	Capacity	Required Parking	Required Parking	Required Parking	
Wilson School	775	87	284	7	378



Key Considerations

- Access to transit network and facilities
- Transportation demand management
- Available off-site parking
- Project costs
- Ability to add parking in the future

County Board Approved Parking: Zero on-site spaces, 100 spaces off-site

Adopted Policies – Zoning Ordinance (S3-A)

FLEET ELEMENTARY SCHOOL CASE STUDY

	(A) Students		(B) Assembly & Gymnasium Space	(C) Visitors	"Additive" Requirement
	Capacity	Required Parking	Required Parking	Required Parking	
Thomas Jefferson MS	1,086	145	N/A	27	172
Fleet ES	752	101	N/A	19	120
<i>Total</i>					292



Key Considerations

- Transportation demand management
- On-street parking along project frontage
- Building up not out, reducing project foot print
- Site design and transportation operations

County Board Approved Parking: 250 Below grade on-site spaces

Adopted Policies – Zoning Ordinance (S3-A)

McKINLEY ELEMENTARY SCHOOL CASE STUDY

	(A) Students		(B) Assembly & Gymnasium Space	(C) Visitors	"Additive" Requirement
	Capacity	Required Parking	Required Parking	Required Parking	
McKinley ES	684	91	N/A	17	108



Key Considerations

- Transportation demand management
- Available on-street parking adjacent to the site and within the neighborhood
- Balancing school and neighborhood parking demands on-street
- Preserving open space
- Site design

County Board Approved Parking: **56 On-site spaces**

Group Discussion 1 - Parking

1. **How should APS approach TDM for this site?** Possible innovations? Setting targets? Policies?
2. **How should required parking be managed on this site?** Possible innovations? Setting targets? Policies?
3. **What do we need from APS and the County to support TDM and innovations in parking?**

Draft Guiding Principles for Parking

- The project should include a comprehensive analysis of the parking needs and demands for the site based on the proposals for the project's design capacity and zoning requirements.
- The study should consider how a robust TDM program could reduce overall parking needs vis a vis zoning requirements.
- Based on the resulting projected parking demand for the site, develop a parking program that may include a mix of on-site, on-street and/or off-site parking and which considers:
 - project costs,
 - environmental impacts,
 - site design constraints, and
 - neighborhood considerations.
- The study should also examine innovations and best practices in parking management to evaluate which may be appropriate for the Career Center site.

Group Discussion 2: SITE CIRCULATION

Group Discussion 2 – Site Circulation

- 1. Which portions of the site are best suited for bus pick-up/drop-offs (elementary + high school students)?**
- 2. How should pedestrian circulation be emphasized considering additional growth (buildings, garage, field space)?**
- 3. Should vehicles be given access through the site and where? What are the implications?**

Sample Recommendations from TJ Working Group

Any school development should require a comprehensive transportation solution which, among other points:

- a. Reduces the impacts of traffic flow in the surrounding community;
- b. Increases safety, convenience and connections to the site for walkers and cyclists;
- c. Provides efficient school bus access as well as parent-drop offs on the site in a manner that improves traffic conditions for residents and commuters as well as school-related travelers; and
- d. Provides for periodic APS/County review and adjustments of traffic patterns and controls if needed to address problems.