

ED COMMITTEE #1  
February 11, 2013  
**Update**

**MEMORANDUM**

February 7, 2013

TO: Education Committee

FROM: Essie McGuire, Senior Legislative Analyst *EMG*  
Linda McMillan, Senior Legislative Analyst *JOM*

SUBJECT: **Update – School Bus Depots**

Today the Education Committee will receive an update from the informal staff work group reviewing relocation and capacity issues related to school bus depots. The following individuals are expected to participate in the discussion:

- James Song, Director, Department of Facilities Management, Montgomery County Public Schools (MCPS)
- Greg Ossont, Deputy Director, Department of General Services (DGS)
- Todd Watkins, Director, Department of Transportation, MCPS
- Adrienne Karamihas, Budget and Operations Manager, MCPS
- Mary Beck, Manager, Office of Management and Budget (OMB)

**Background**

Last spring, Committee Chair Ervin requested that Council staff convene an informal work group with MCPS and Executive Branch staff to review relocation and capacity issues related to school bus depots. This request was precipitated by two budget discussions. First, part of the Smart Growth Initiative requires the relocation of the MCPS Shady Grove Bus Depot from the County Service Park on Crabbs Branch Way. Second, MCPS requested in its CIP program a project to address bus depot overcrowding issues.

While it is clear that the Shady Grove Bus Depot must be relocated to implement the sector plan and that the six MCPS school bus depots are significantly overutilized, questions remain about the most efficient and effective way to park, maintain, and stage buses throughout the County.

Beginning last summer, an informal interagency staff work group has met regularly to review the short term and long term capacity issues and analyze the pros and cons of a range of possible options. Work group members also traveled to Fairfax County and received a tour of their bus operations and parking practices.

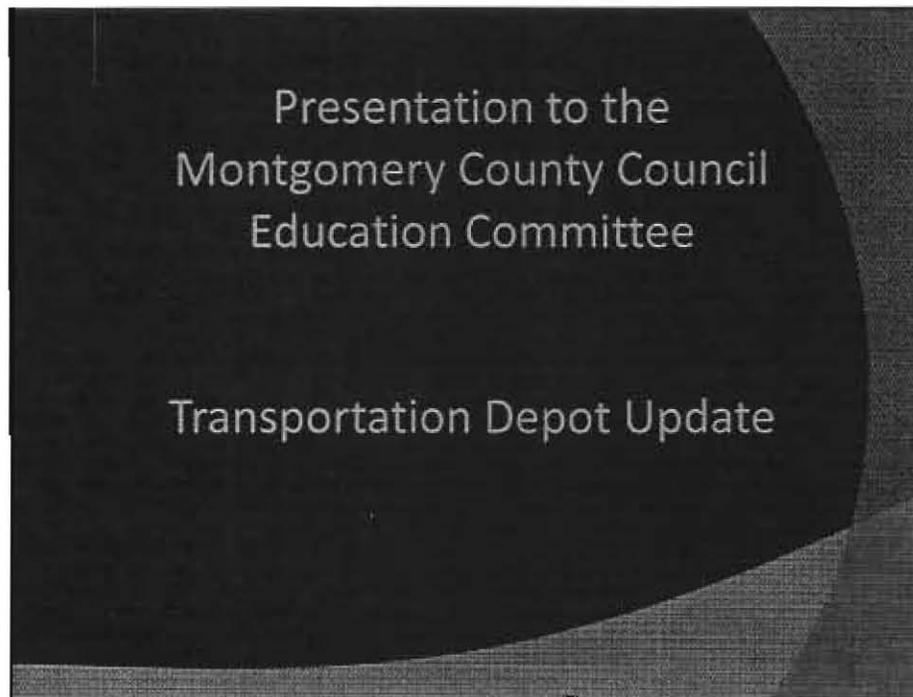
## **Presentation and Update**

The attached presentation details the work of the staff group to date. It includes a description of the relocation and capacity problems to be addressed both at the County Service Park and at the other MCPS depots; an overview of possible public sites; issues for consideration associated with parking buses at high schools; and possible alternatives for addressing relocation and capacity issues that will need further analysis going forward.

**At this juncture, the work group does not have any formal recommendations. The work group agrees that multiple options will need to be considered to address the relocation and capacity issues of all school bus depots.** For example, given the shortage of available public sites large enough to relocate all the Shady Grove Depot functions, it may be necessary to divide the depot up and relocate various sections onto multiple smaller sites. In addition, while there are clearly many issues, such as bus security and neighborhood impact, to consider related to parking buses at high schools, some high schools may be suitable for limited bus parking.

The work group will continue to analyze and refine possible options, with the goal of having more concrete alternatives for consideration in the next CIP cycle. This will give the County and MCPS time to work through identified options, and ultimately structure and implement approved next steps.

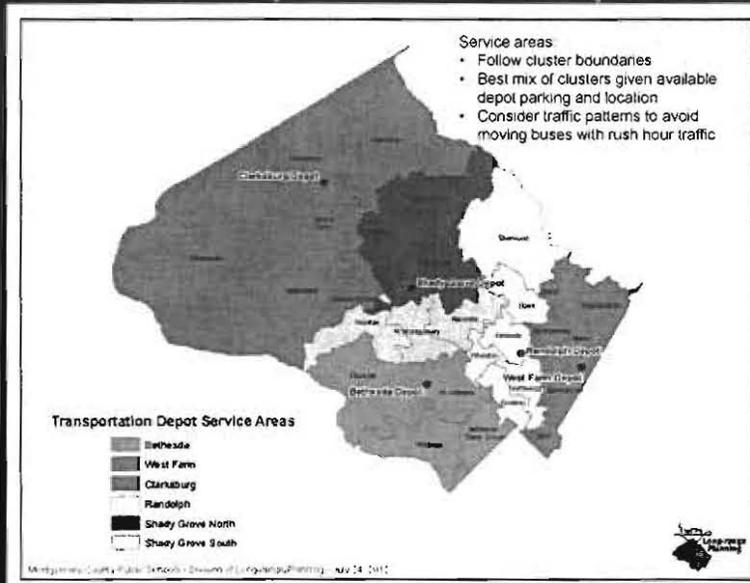
The work group is presenting the same information to the Board of Education at its meeting on February 12.



## General Information

1. The Department of Transportation transports approximately 100,000 students everyday
2. Currently, MCPS has 1,264 buses and 1,100 routes
3. For every additional 1,000 students, 7.7 buses are required
4. The average age of the fleet is 6 years
5. An MCPS bus drives an average of 90.9 miles per day, approximately 100,000 miles per day for the fleet
6. MCPS consumes an average of 17,000 gallons of diesel every day

## MCPS Operates Six Depots



## Immediate Issues

1. Relocation of County Service Park which includes the Shady Grove (North and South) transportation and maintenance depots and bus operations center
2. Overutilization at all the transportation depots

- 1: Relocation of the Shady Grove Transportation and Maintenance Depot

## The Need to Relocate the Shady Grove Depot

- The County Executive created the Smart Growth Initiative program to stimulate economic growth and address aging county-owned facilities
- Facilities Involved:
  - Police Headquarters on Research Boulevard
  - Public Safety Training Academy on Great Seneca Highway
  - All facilities located in the County Service Park on Crabbs Branch Way
- All facilities located on Crabbs Branch Way, must be relocated to accommodate the transit oriented development and Shady Grove Sector Plan
- Therefore, the Shady Grove Transportation and Maintenance Depot must be relocated

## Existing Shady Grove Transportation Depot



## County Property Use Study - 2008

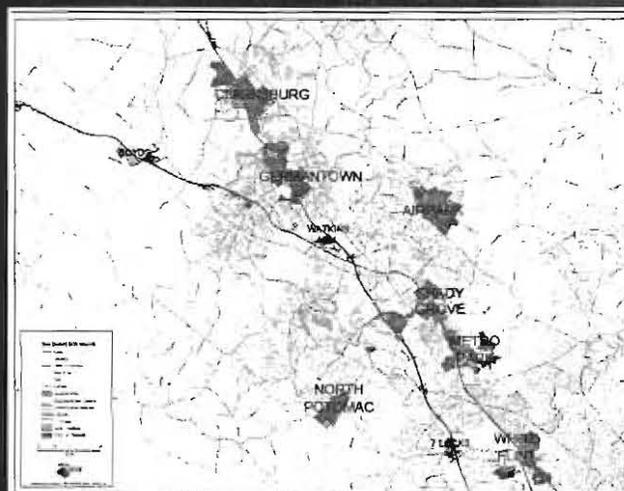
- Identified elements of County Service Park that required relocation
- Proposed that MCPS Maintenance and Transportation Depot would move to Gude Landfill
- Later learned that Landfill was not ripe for redevelopment
- Maintenance was then proposed for Webb Tract
- Site search launched for Transportation

**Crabbs Branch Service Park – 92 acres**



## Site Search for Transportation

- No appropriate public sites available
- Limited industrial land in the County
- Costly purchase prices



## Redevelopment Plan

- County has contract purchaser
- Proposed subdivision plan under review
- Urgency to find alternative site for buses



	CSP West	CSP East	TOTAL
Multi-family Units	1114	241	1353
Townhouse Units	407	440	847
<b>TOTAL UNITS</b>	<b>1521</b>	<b>681</b>	<b>2202</b>
<b>Commercial Uses</b>			
Retail (SF)	41,828	0	41,828
Office (SF)	133,250	0	133,250

## Shady Grove Depot Existing Conditions

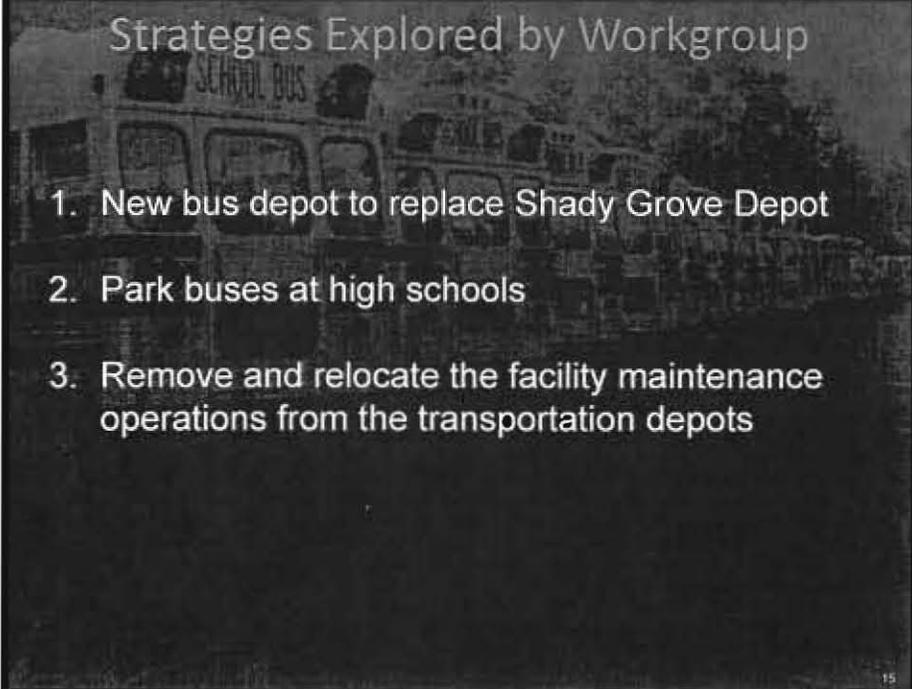
1. Site is approximately 35 acres
2. 234 programmed bus parking spaces ----- 400 buses are parking on the site
3. 200 programmed vehicle parking spaces ---- approximately 700 vehicle spaces for bus operators, attendants, trainers, mechanics, and other support staff are parked on the site
4. The permanent structure is approximately 28,700 square feet
5. The temporary structures are approximately 9,400 square feet



## 2. The Overutilization of the Transportation Depots

### Utilization at Depots

Depot	TODAY				FUTURE (FY 2017)		
	Number of Buses	Design Capacity	Shortfall	Percent Utilization	# of Buses for 10,000 Additional Students	Shortfall	Percent Projected Utilization
Bethesda	171	101	(70)	169%	10	(80)	179%
Clarksburg	229	102	(127)	225%	14	(141)	238%
Shady Grove (North & South)	401	234	(167)	171%	24	(191)	182%
Randolph	210	180	(30)	117%	13	(43)	124%
West Farm	253	250	(3)	101%	15	(18)	107%
Totals	1264	867	(397)	146%	76	(473)	155%



### Strategies Explored by Workgroup

1. New bus depot to replace Shady Grove Depot
2. Park buses at high schools
3. Remove and relocate the facility maintenance operations from the transportation depots

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## Strategy 1

### New Bus Depot (Shady Grove Replacement)

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## New Depot Requirements

1. New facility should be approximately 33-37 developable acres on a relatively level site. It is possible to have multiple sites of approximately 10+ acres to accommodate the new depot requirements.
2. Parking
  - 400 buses
  - 700 spaces for depot staff, drivers, support staff and aides
3. Buildings
  - DOT main administrative offices
  - Two depot operation offices (North and South)
  - Safety office, classroom space, repair shops, shop offices
  - Bus repair building with 10 double stacked pull through bays
  - Bus wash facility and fueling bays with canopy
4. MVA Testing
  - Required space to maintain MCPS accreditation



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## Board of Education Owned Closed Sites

SITE NAME	LOCATION	CLUSTER	ACRES	STATUS
Concord School	7210 Hidden Creek Road	Whitman	3.45	MCPS Central Records; George B. Thomas Learning Academy offices
Rollingwood ES	3200 Woodbine Street	B-CC	4.07	Leased to private school Physical disabilities program office; InterAct program
Lynnbrook ES	8001 Lynnbrook Drive	B-CC	4.21	
Montrose ES	12301 Academy Way	Walter Johnson	7.50	Leased to two private schools Consortia offices; Special Education offices
Springmill ES	11721 Kemp Mill Road	Northwood (DCC)	7.69	ESOL; Head Start; Title I;
Rockinghorse Road ES	4910 Macon Road	Wheaton (DCC)	8.25	International Student Admissions
Radnor ES	7000 Radnor Road	Whitman	9.03	Holding School
Tuckerman ES	8224 Lochinver Lane	Churchill	9.13	Leased to private school
Fairland Center	13313 Old Columbia Pike	Blake (NEC)	9.21	Holding School
North Lake ES	15101 Bauer Drive	Rockville	9.66	Holding School
Grosvenor ES	5701 Grosvenor Lane	Walter Johnson	10.21	Holding School
Taylor, Edward U, ES	19501 White Ground Road	Poolesville	11.47	Science Materials Center
Tilden Center	6300 Tilden Lane	Walter Johnson	19.70	Holding School

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## Other Sites

**Oaks Land Fill**

- Located on Olney-Laytonsville Road (MD 108)
- Approximately 545 acres, with a waste disposal footprint of approximately 170 acres



**Gude Land Fill**

- Located on Gude Drive in Rockville
- Waste disposal footprint = 100 acres

## Strategy 2

### Bus Parking at High Schools

## Strategy 2 Requires Spare Bus Fleet

1. MCPS currently averages a 10% spare fleet
2. Fairfax County has a 19% spare fleet to accommodate the logistical challenges of parking at schools
  - 80% of buses are parked at “parking only” type facilities like schools, community buildings and employee homes.
  - Important to have the right type of spare in the right location at the right time
  - Out-of-service time increases due to transporting vehicles to the shop and back to the school
3. 36 additional spare buses would be needed to reach a 19% spare fleet if all 400 buses moved to non-depot facilities
  - Cost — \$120,000 per bus for a total of \$4,320,000

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## High School Site Evaluation

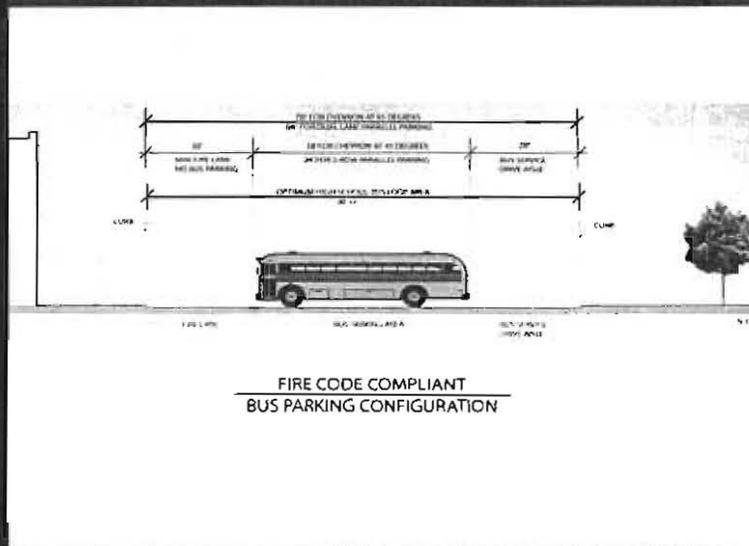
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## Space Needs For High School Bus Parking

The table below assumes a replacement Shady Grove Depot. If not replaced, there would be an additional 234 bus parking shortfall.

Depot	Current # Buses	Design Capacity	Current Space/ (Shortfall)	High Schools
Bethesda	171	101	(70)	Churchill, Bethesda-Chevy Chase, Walt Whitman, Walter Johnson
Clarksburg	229	102	(127)	Northwest, Seneca Valley, Clarksburg, Poolesville, Damascus
Shady Grove (North & South)	401	234	(167)	Richard Montgomery, Thomas S. Wootton, Rockville, Watkins Mill, Gaithersburg, Magruder
Randolph	210	180	(30)	Albert Einstein, John F. Kennedy, Northwood, Sherwood, Wheaton
West Farm	253	250	(3)	Springbrook, Paint Branch, James Hubert Blake, Montgomery Blair

## Bus Parking Requirement



## Bus Pavement Comparison

- Typical Existing Parking and Drive Aisle Pavement Section
- Minimum Pavement Section Required for On-site Bus Parking

**1.5" Asphalt Surface**

**4" Asphalt Base**

**4" Stone Base**

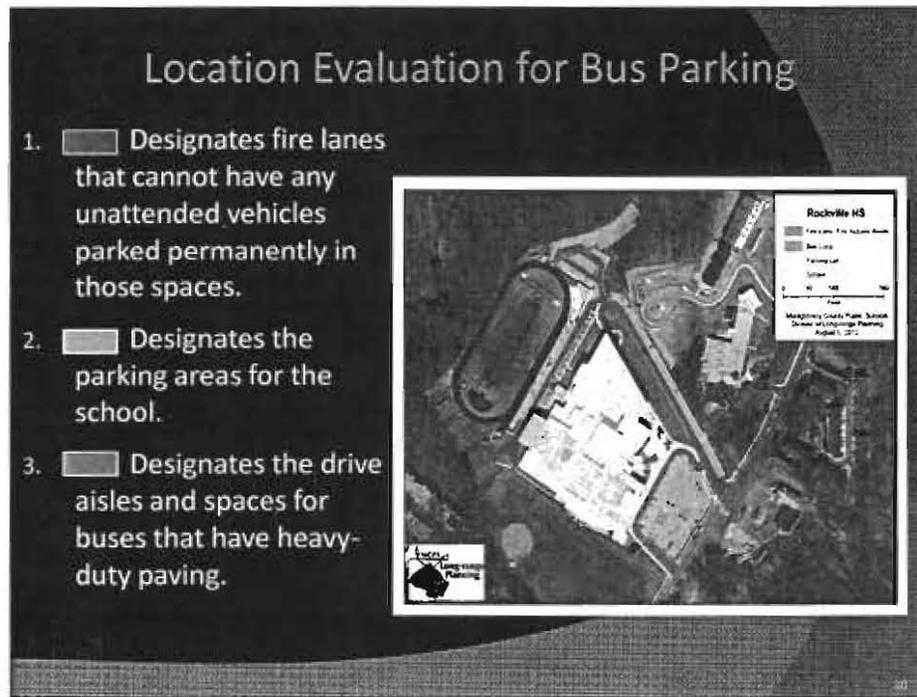
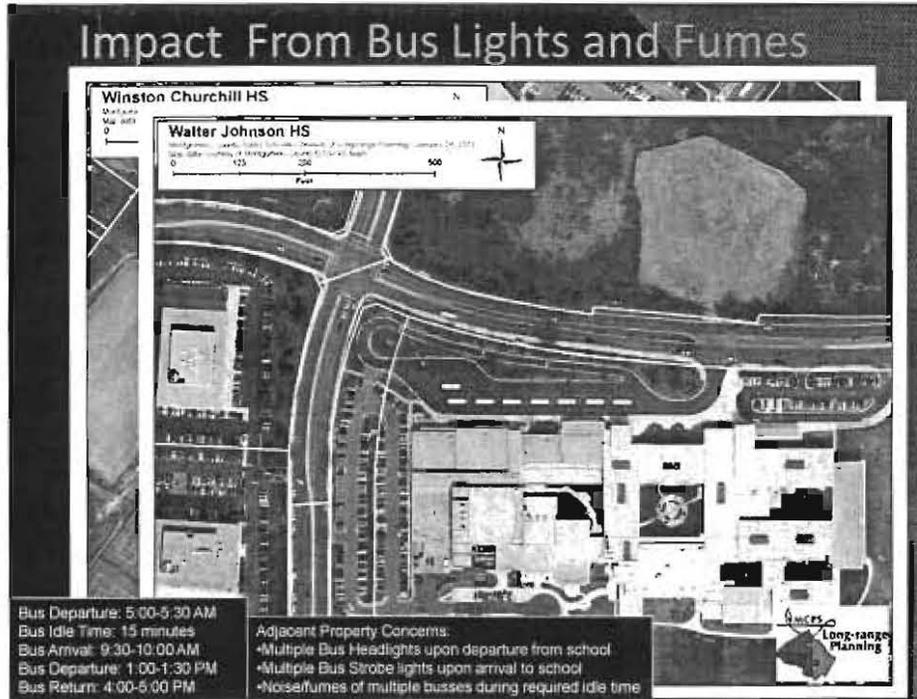
**2" Asphalt Surface**

**4" Asphalt Base**

**8" Stone Base**

## Noise Levels at High Schools with Bus Parking (20 buses studied)

	dBA - Levels
Ambient (background) Noise Level	52
Average Noise Level 20 feet	72
Projected Noise Level 80 feet from buses	66
Projected Noise Level 160 feet from buses	63
<b>Montgomery County Noise Control Ordinance Residential</b>	<b>65 daytime; 55 nighttime</b>



## High School Parking Space Analysis

- MCPS evaluated all 25 high schools to determine the feasibility of parking buses at high schools based on analysis of parking lots noted in the previous slide.
- Out of 25 high schools, 15 were considered to be in dense residential communities and not recommended
- Of the remaining 10 high schools, it was determined that approximately 82 buses could be parked in the designated portion of the parking lot.

## Challenges of Parking Buses at High Schools

### 1. Parking for DOT Staff and Maintenance:

- Vehicle parking would be required for bus drivers, attendants, dispatcher, supervisors, sub-drivers, and sub-attendants
- Parking spaces for spare buses ( 1 bus for every 5 route buses)
- Space to park and operate a repair truck at each school
- Space for a "quick fix lane" that would not impact other parked buses
- Storage space to keep and maintain enough spaces and consumables to insure the proper operation of the buses (flammables)



## Challenges of Parking Buses at High Schools

### 2. Bus parking between runs:

- Main work hours of buses are between 5:10am – 9:30am and then from 1:30pm – 5:00pm
- Majority of buses will need to be parked at the high schools between the hours of 9:30am– 1:30pm
- Drivers and attendants would need restroom facilities and break rooms between runs
- These buses will need to go to the fleet maintenance facility during these hours to be worked on if necessary.

### 3. Bus Security

- Maryland law requires that school buses remain unlocked
- Concerns with keeping doors unlocked include vandalism and vagrancy

## Challenges of Parking Buses at High Schools

### 4. Fueling of Buses

- Buses need to remain fueled at all times
- Buses will need to go between the high school and the fueling site and back to the high school at least every other day to keep buses fueled
- At the high school, consideration must be given to the possibility of a fuel leak (HAZMAT)

### 5. Supervision and Employees

- Ability to deploy sub drivers to correct locations in a timely manner
- Lack of supervision and supervisory support available at the depots
- Safety of employees arriving alone at high schools very early in the morning
- Ability to monitor absenteeism (employee doesn't show up)

## Uses that Require Parking at High Schools

### 1. Athletics

- Over 10,000 contests each year for interscholastic athletics
- Approximately 21,500 students participate in interscholastic athletic teams
- Most high schools have a minimum of 37 teams
- Athletic activities occur six days per week

### 2. School Use

- Back to school night
- Plays and concerts
- International and culture nights
- Other school-wide activities

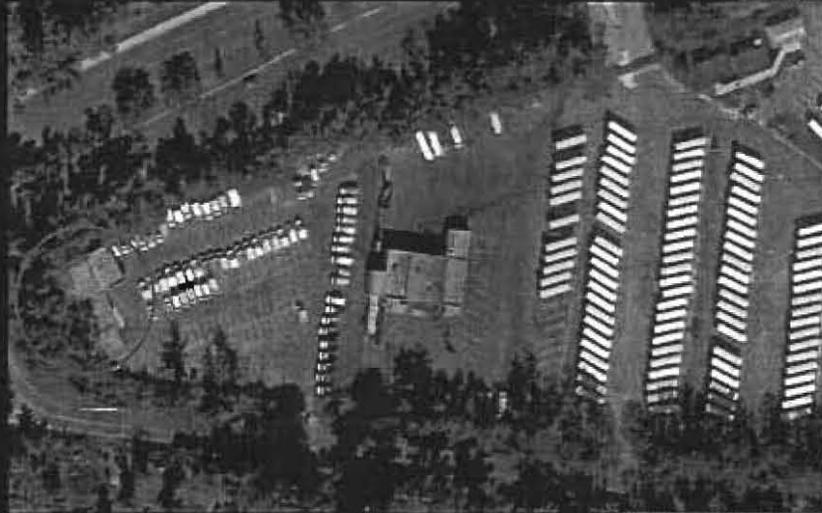
### 3. Community Use

- Outdoor athletic events including soccer, baseball, and softball
- Indoor athletic events in the gymnasium
- Exercise classes in gymnasium
- Religious activities

## Strategy 3

Remove and Relocate the Facility Maintenance Operations from the Transportation Depots

## Randolph Transportation and Facility Maintenance Depot



Strategy would be to remove the facility maintenance portion of the depot to provide more parking spaces for buses

## Removal of Facility Maintenance Operations Unanswered Questions

- Is it feasible to construct parking decks on existing site?
- What is the cost to construct the parking decks?
- Where will the facility maintenance operations be relocated?
- What will be the cost implication to relocate ?
- Would MCPS consider one large maintenance facility or small ones throughout the county?

**Even if the facility maintenance operations are relocated, the transportation depots are either at capacity or over capacity**

## In Summary

- Workgroup met over several months to explore strategies that would address both the need for a replacement facility for the Shady Grove Depot and to address the overutilization at the remaining depots.
- Strategies explored:
  1. New bus depot to replace Shady Grove Depot only (either on one site or on multi-sites)
  2. Park buses at high schools
  3. Remove and relocate the school maintenance operations from the transportation depots and build parking decks

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## Next Steps

- Hire consulting firm to evaluate strategies explored and determine costs associated with those strategies
- Outcome of study will be reviewed by county agencies to prepare a recommendation
- Goal is to have a recommendation for the FY 2015–2020 Capital Improvements Program (CIP) review process

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