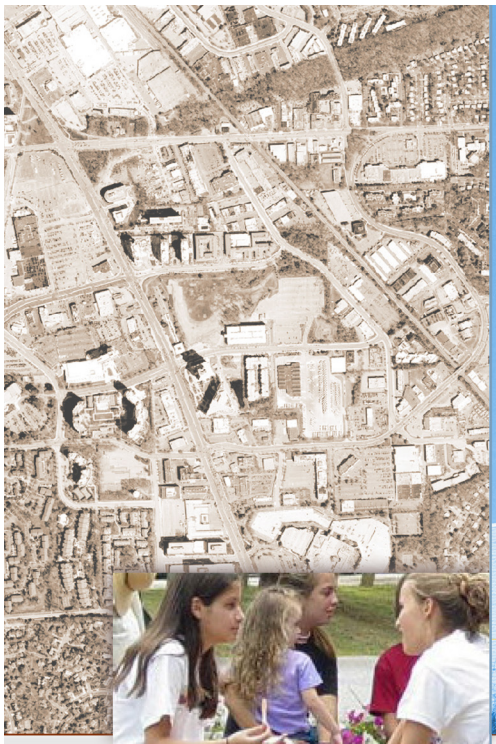


White Flint Sector Plan

July 2009

Appendix

montgomery county planning department
The Maryland-National Capital Park and Planning Commission

Appendix
White Flint Master Plan

Prepared by the Montgomery County Planning Department
8787 Georgia Avenue
Silver Spring, MD 20910-3760

Contents

Introduction

The documents in these appendices contain summary data, analysis, and background information used in the development of the planning concepts, goals, and recommendations in the White Flint Sector Plan.

Appendices 1 and 2 are a demographic profile and survey of housing resources in the Plan area derived from the 2005 Census Update.

Appendices 3, 4, 6, and 7 contain information regarding the public sector components, public parks and schools, a comprehensive analysis of the transportation system and improvements necessary to accommodate growth, and an analysis of the environmental impacts growth including the results of the carbon footprint model required by County law.

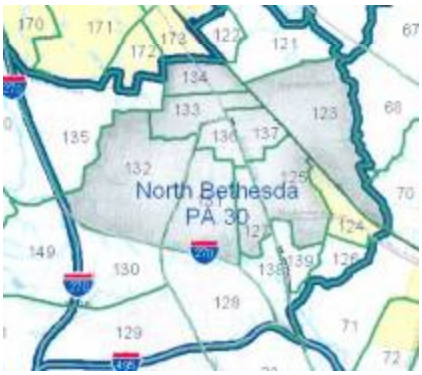
Appendix 5 compiles staff memos to the Planning Board concerning the economic model and fiscal analysis of costing and financing the public improvements necessary to implement the growth envisioned in the Plan.

Appendix 8 is an overview of the history of planning in the *White Flint Sector Plan* area beginning with the 1964 general plan. This appendix also includes a comparison of the 2009 proposed development and the 1992 plan proposed development.

Appendix 1: Demographic Profile of White Flint and Vicinity

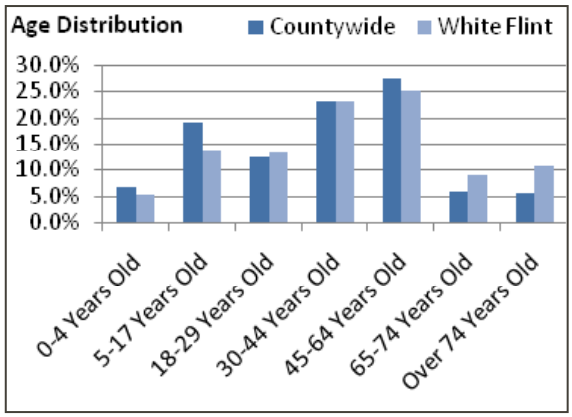
For more information: Contact Sharon Suarez at sharon.suarez@mncppc-mc.org

White Flint and vicinity is part of the North Bethesda Planning Area (PA) 30, and it comprises the community analysis zones 123, 125, 131-134, 136 and 137, as depicted by the gray shaded area.

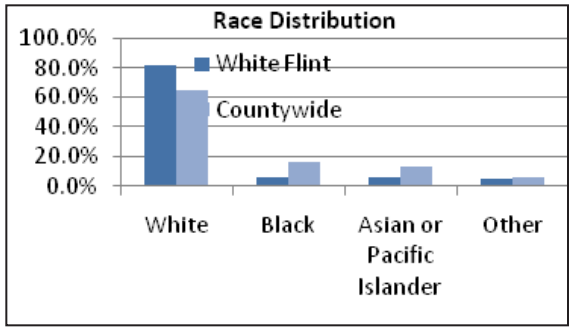


Based on the demographic profile derived from the recent Montgomery County 2005 Census Update Survey, the approximately 18,720 residents of White Flint and Vicinity can be described generally as older, less diverse, wealthier, more highly educated, more likely to rent a unit in a multifamily building, more likely to work in Washington, and more likely to be living alone than residents County wide. The area is defined by its multifamily housing that is characteristically atypical of garden and high rise households found elsewhere in the County. Not only is the area disproportionately multifamily, but also the households in these structures are very different than what is typically associated with garden and high rise households.

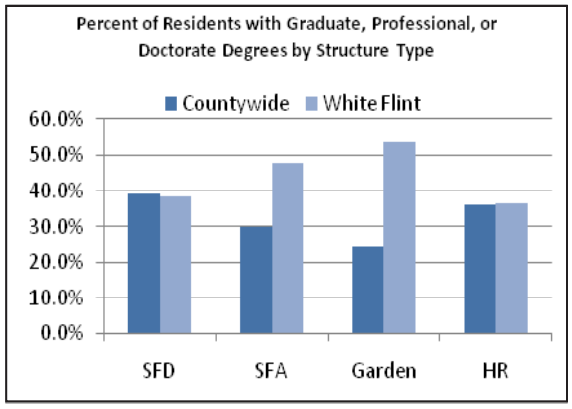
- About one-fifth of the area's population is age 65 and older which is a substantially higher percentage than what is found in the overall County's population (11.2 percent). As may be expected, school age children at 13.3 percent are underrepresented in the population compared to the 19.1 percent share at the County level.



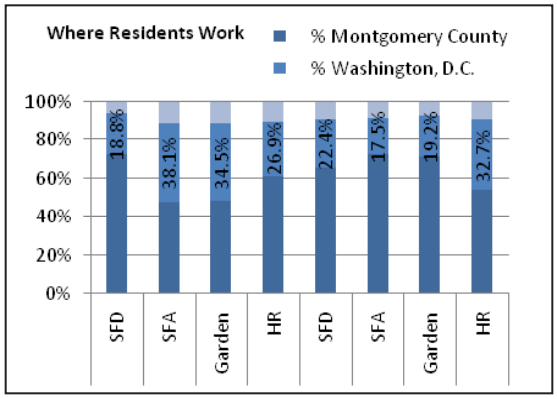
- White Flint, with 73 percent of its population classified as non-Hispanic White, is less diverse than the rest of the County at 56 percent. The percentages of Black/African American (6.3 percent) and Asian and Pacific Island (6.6 percent) groups in the area are less than half of what is found County wide, 16.6 percent and 13.4 percent, respectively. The percentage of the area's Hispanics or Latinos at 13.5 percent is comparable to the percentage across the County.



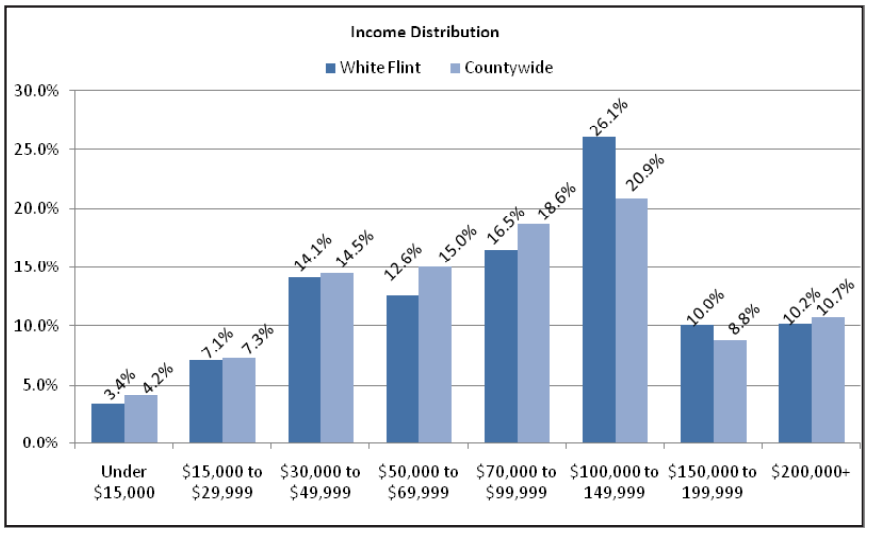
- White Flint's residents are an extremely well educated group in a county that nationally ranks in the top six counties for educational attainment. About 70 percent of adults ages 25 and older have at least a bachelor's degree compared to the County at 64 percent. Notably, area residents living in garden apartments are more than twice as likely to hold a graduate, professional, or doctoral degree than residents County wide (54 percent of area residents versus 24 percent in garden apartments County wide).

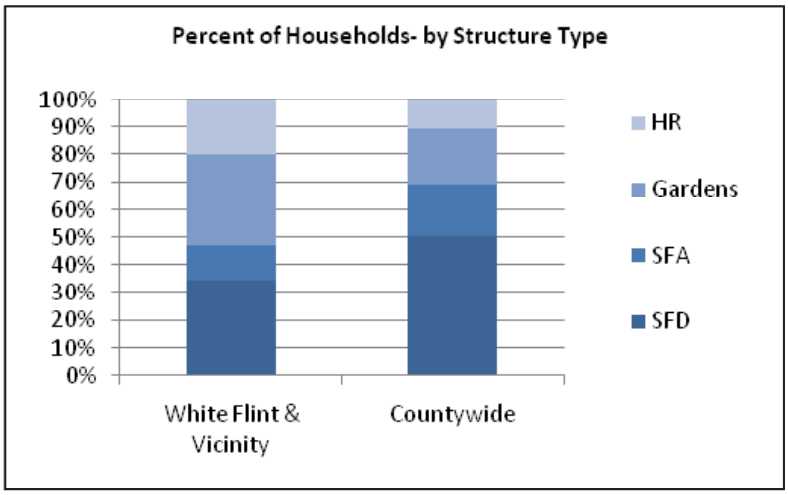


- The majority (52 percent) of employed residents in the area lives and works in Montgomery County. And with the area's proximity to Washington, D.C. and nearby public transit, a higher percentage of employed White Flint residents work in the District of Columbia (28 percent versus 22 percent County wide) and a higher percentage of the area's workers commute by public transit (20 percent versus 16 percent County wide). A higher percentage of White Flint residents who live in single-family attached (SFA) homes or in garden apartments work in Washington, D.C., than County wide. In fact, approximately twice as many White Flint residents of garden apartments work in Washington, D.C., than do residents of garden apartments, County wide.



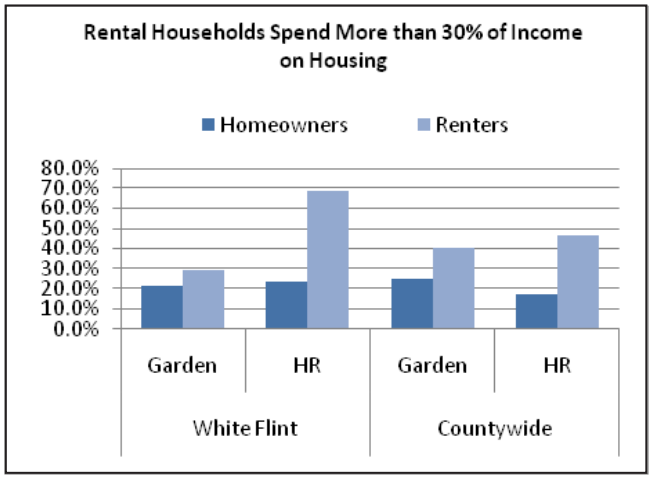
- In 2004, the median household income in White Flint at $95,040 was higher than for households County wide ($83,880). Nearly half of the households in White Flint earned more than $100,000 in 2004. A striking difference in the area's income is associated with housing type where households in townhouses and garden apartments have incredibly high incomes compared to the respective County median income estimates. The 2004 median household income for residents in White Flint's townhouses is $137,000 compared to $79,800 County wide and the area's garden apartment median income is $79,080 versus $46,660.



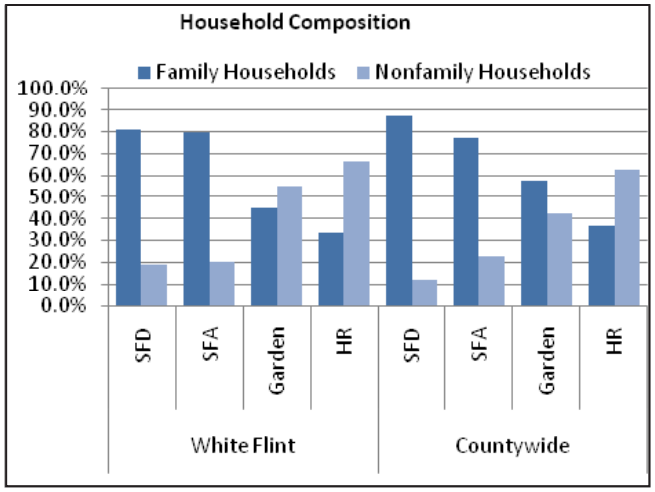


- There are approximately 9,000 households in the White Flint area according to the 2005 Census Update Survey. With multifamily units characterizing more than one-half of the households in the White Flint area, the proportion of housing types is very different from what is found at the County level. Garden apartments and single-family detached houses each comprise about one-third of the housing types as contrasted to the County level where one-half of the County's housing is single-family detached and one-fifth is garden apartments.

- Of the approximately 1,755 high rise households living in White Flint, about 61 percent are rental units. An estimated 68 percent of these rental households spend more than 30 percent of their household income on housing costs, compared to nearly 47 percent of high rise renters County wide. Close to half (44 percent) of the area's 2,945 garden apartments are owner-occupied condominiums. In White Flint, nearly 30 percent of households renting garden apartments spend more than 30 percent of their income on housing, compared to over 40 percent of the households County wide who rent garden apartments.

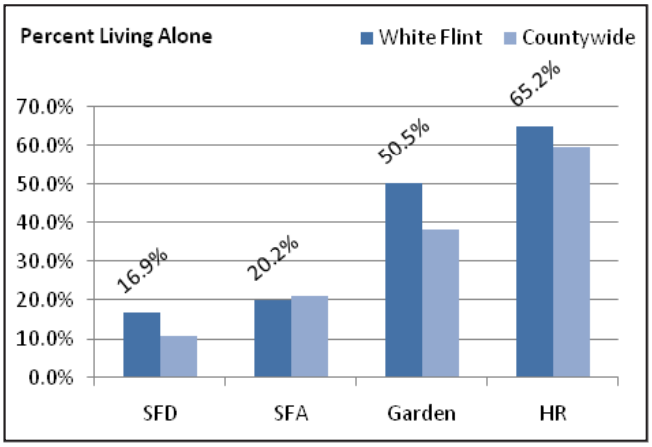


- White Flint has a larger percentage (40 percent) of non-family households than the County, overall (26 percent). One-half of the area's households are married-couples compared to 62 percent of households County wide. Household composition in the area varies by structure type when compared to the County as a whole. In contrast, White Flint has a lower percentage of married-couples living in single-family detached houses (71 percent versus 79 percent) while townhouses attract a much higher percentage of married couples (72 percent versus 60 percent). Non-family households occupy the majority (55 percent) of garden apartments in White Flint compared to 42 percent at the County level.

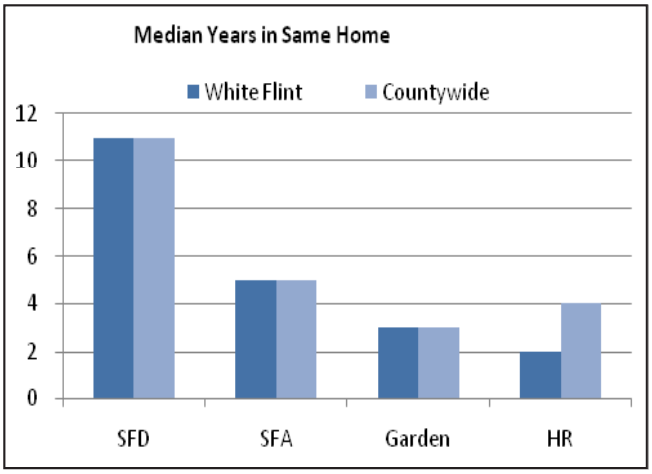


- Married couples (72 percent versus 60 percent). Non-family households occupy the majority (55 percent) of garden apartments in White Flint compared to 42 percent at the County level.

- White Flint has a larger percentage of householders living alone than countywide. Nearly 38 percent of White Flint householders live alone, compared to less than 24 percent of householders, County wide. In White Flint, 65 percent of householders residing in high rise units live alone and about half of householders in garden apartments living alone. The smaller, non-family households characterizing the area (particularly garden apartments) drive the average household size (2.11) well below the County's average (2.66).



- White Flint households living in high rise units tend to stay in their units only half as long (two years) as households who live in high rises County wide (four years). Otherwise, White Flint residents living in all other structure types tend to stay in their households the same length of time, as do households County wide.



White Flint & Vicinity

Montgomery County, MD. **2005 Census Update Survey**

	Community Analysis Zones: 123, 125, 127, 131-134, 136, 137	SINGLE-FAMILY DETACHED	TOWN-HOUSE	GARDEN APT.	HIGH-RISE	ALL TYPES
POPULATION	**Household Population**	8,275	3,035	4,975	2,435	18,720
	% Female	50.1%	48.6%	61.4%	61.6%	54.3%
	Age Distribution:					
	% 0-4 Years Old	6.4%	9.3%	2.9%	1.0%	5.3%
	% 5-17 Years Old	17.8%	15.7%	9.9%	3.0%	13.4%
	% 18-29 Years Old	11.8%	11.3%	19.9%	8.1%	13.4%
	% 30-44 Years Old	18.7%	21.0%	32.4%	21.2%	23.0%
	% 45-64 Years Old	24.2%	32.1%	22.9%	24.5%	25.2%
	% 65-74 Years Old	11.2%	8.1%	4.7%	10.9%	8.9%
	% Over 74 Years Old	9.9%	2.5%	7.2%	31.3%	10.7%
	Average Age (years)	40.9	37.3	39.8	58.3	42.3
	Race:					
	% White	79.0%	82.8%	84.2%	85.5%	81.8%
	% Black	5.4%	5.9%	7.7%	7.5%	6.3%
	% Asian or Pacific Islander	6.2%	10.4%	5.5%	5.6%	6.6%
	% Other	9.4%	0.9%	2.7%	1.4%	5.2%
	Hispanic or Latino and Race [1]					
	% Hispanic or Latino [1]	17.1%	23.1%	4.6%	7.5%	13.5%
	% Not Hispanic White	70.5%	59.7%	82.2%	78.0%	72.8%
	Language Spoken at Home					
	Persons 5 Years and Older	7,745	2,750	4,830	2,410	17,735
	% Speak Language Other than English	37.2%	40.8%	20.2%	31.6%	32.3%
	% Speak English less than "Very Well"	9.8%	17.1%	8.6%	12.8%	11.1%
	Educational Attainment:					
	Persons 25 Years and Older	5,740	2,100	3,885	2,260	13,985
	% Less than High School Diploma	8.4%	1.1%	2.8%	7.2%	5.5%
	% High School Graduate	20.6%	17.0%	15.7%	23.1%	19.1%
	% Associate or Trade School	4.5%	5.2%	6.6%	3.9%	5.1%
	% Bachelor's Degree	27.9%	28.8%	21.1%	29.2%	26.4%
	% Grad, Professional or Doctoral	38.6%	47.9%	53.7%	36.6%	43.9%
LABOR FORCE	**Number of Employed Residents** [2]	4,090	1,640	3,285	1,175	10,190
	% Females Who Are Employed [2]	59.6%	59.7%	72.6%	41.3%	61.0%
	Women with Children Under Age 6	*	*	*	*	1,035
	% Employed [2]	*	*	*	*	48.6%
	Work Location:					
	% Montgomery County	63.1%	45.1%	41.4%	58.0%	52.4%
	% Prince George's County	5.6%	3.2%	6.4%	3.2%	5.2%
	% Elsewhere in Maryland	7.4%	1.6%	6.0%	2.4%	5.4%
	% Washington, D.C.	18.8%	38.1%	34.5%	26.9%	28.1%
	% Virginia	4.9%	10.9%	9.7%	9.5%	8.0%
	% Outside MD-VA-DC	0.3%	1.0%	2.0%		0.9%
	Work Trip:					
	% Driving	76.2%	68.4%	73.5%	68.5%	73.1%
	% Alone	74.7%	64.5%	73.5%	64.1%	71.4%
	% Carpool	1.5%	3.9%		4.4%	1.7%
	% Public Transit or Rail	13.5%	25.4%	22.6%	26.7%	20.0%
	% Walk/Bicycle/Other	1.5%	0.0%	3.2%	1.2%	1.8%
	% Work at Home	8.8%	6.2%	0.8%	3.6%	5.1%
	Average Commuting Time to Work (minutes)					
	Overall	29.9	29.8	29.6	28.2	29.6
	By Car	27.2	26.5	25.7	22.7	26.2
	By Public Transit	45.9	38.6	42.7	41.6	42.5

** Insufficient data for reliable estimates.*

[1] *Those of Hispanic origin may be of any race.*

[2] *Ages 16 and older and employed full- or part-time.*

Source: 2005 Census Update Survey; Research & Technology Center, Montgomery County Planning Dept., M-NCPPC August 2006.

White Flint & Vicinity (continued)

2005 Census Update Survey

		SINGLE-FAMILY DETACHED	TOWN-HOUSE	GARDEN APT.	HIGH-RISE	ALL TYPES
HOUSING	**Households by Structure Type**	3,075	1,140	2,945	1,755	8,915
	% Total Households by Structure Type	34.5%	12.8%	33.0%	19.7%	100.0%
	Average Household Size	2.71	2.66	1.69	1.39	2.11
	Tenure:					
	% Rental	8.3%	16.7%	56.0%	61.4%	35.6%
	Average Monthly Costs:					
	Homeowner	$1,728	$2,165	$1,230	$1,624	$1,679
	Renter	*	*	$1,512	$1,576	$1,680
	Residence in April 2000:					
	% in Same Home	75.2%	46.4%	36.4%	35.6%	51.1%
	% Elsewhere in County	12.3%	23.8%	21.6%	25.8%	19.4%
	% Elsewhere in Maryland	5.6%	1.1%	2.8%	9.4%	4.8%
	% D.C or Northern Virginia	1.0%	8.0%	5.5%	5.2%	4.2%
	% Outside Metro Area	5.9%	20.7%	33.7%	24.1%	20.4%
	Median Years in Same Home	11	5	3	2	5
	Average Age of Household Head	55.1	50.8	46.2	60.7	52.7
	% Households with Foreign Born Head or Spouse	30.4%	41.5%	23.8%	27.9%	29.2%
	% Households Speaking Spanish	13.0%	21.5%	4.2%	10.5%	10.7%
	Households by Type:					
	% Family Households	81.2%	79.8%	44.9%	33.6%	59.8%
	% Married-Couple	71.2%	71.5%	30.5%	25.9%	48.9%
	% Single-Parent	7.8%	8.3%	7.3%	5.1%	7.2%
	% Nonfamily Households	18.8%	20.2%	55.1%	66.4%	40.2%
	% Householder Living Alone	16.9%	20.2%	50.5%	65.2%	37.9%
	Persons in Households:					
	% 1 Person	16.9%	20.2%	50.5%	65.2%	37.9%
	% 2 Persons	38.1%	39.3%	38.0%	30.8%	36.8%
	% 3 Persons	17.4%	14.0%	7.2%	4.0%	11.0%
	% 4 Persons	16.3%	10.4%	0.9%		7.3%
	% 5+ Persons	11.2%	16.1%	3.5%		7.1%
	Average Number of Cars	2.0	1.9	1.4	1.0	1.6
	% of Households with Computers	91.0%	96.6%	83.1%	73.0%	85.8%
	% of these visiting M-NCPPC website	29.2%	21.0%	18.6%	13.0%	22.0%
INCOME	**2004 Household Income Distribution:**					
	% Under $15,000	2.2%		4.0%	7.0%	3.4%
	% $15,000 to $29,999	7.9%		3.7%	17.1%	7.1%
	% $30,000 to $49,999	13.1%	1.2%	20.1%	13.8%	14.1%
	% $50,000 to $69,999	11.3%	1.1%	17.2%	14.5%	12.6%
	% $70,000 to $99,999	12.7%	25.5%	20.0%	10.8%	16.5%
	% $100,000 to 149,999	26.5%	26.2%	26.1%	25.4%	26.1%
	% $150,000 to 199,999	11.7%	18.1%	6.8%	7.4%	10.0%
	% $200,000+	14.6%	27.9%	2.2%	4.0%	10.2%
	2004 Median Household Income	$104,600	$137,000	$79,080	$57,660	$95,040
	% of Households Spending More Than 30% of Income on Housing Costs:					
	% Homeowners	17.8%	14.8%	21.2%	23.1%	18.6%
	% Renters	*	*	29.4%	68.3%	40.0%

** Insufficient data for reliable estimates.*

Source: 2005 Census Update Survey; Research & Technology Center, Montgomery County Planning Dept., M-NCPPC August 2006.

Appendix 2: Housing

For more information: Contact Sharon Suarez at sharon.suarez@mncppc-mc.org

The 1993 General Plan Refinement contains the following objectives.

- Promote a sufficient supply of housing to serve the County's existing and planned employment and the changing needs of its residents at various stages of life.
- Encourage an adequate supply of affordable housing throughout the County, especially for households at the median income or below.
- Concentrate the highest density housing in the Urban Ring and the I-270 Corridor, especially in transit station areas.

Jobs-Housing Ratio

The proposed target for jobs to housing in the 2002 Transportation Policy Report (TPR) is 1.18 jobs to 1.00 units for the White Flint area as defined in the 1992 Plan. The current jobs-housing ratio in White Flint is about 9.81 to 1, based on the approved and existing development. The proposed Development Plan is projected to have a jobs-housing ratio of 1.9 to 1. At buildout of the Plan, the jobs-housing ratio will be 3.4 to 1.

Jobs-Housing Ratio

	Existing	Approved	Proposed	Total
Residential units	2321	2,220	9,800	14,341
Non-residential square feet	5.49 M	1.8 M	5.69 M	12.98 M
Jobs	22,800	6,700	19,100	48,600
J-H ratio	9.85/1	3.0:1	1-9/1	3.4 to 1

The Plan's proposed non-residential development assumes that 50 percent of the non-residential development will be office, 30 percent will be retail, and 20 percent will be other forms of non-residential development.

The Planning Department's Research and Technology Center uses 225 square feet per office job, 400 square feet per retail job, 450 square feet per industrial job, and 500 square feet for jobs in other forms of non-residential development.

White Flint Demographic Profile and Housing Resources

White Flint and Vicinity today has a demographic profile that is generally older, less diverse, wealthier, highly educated, and more likely to live alone in a rental unit in a multifamily building than residents County wide.

The typical multifamily household in the White Flint Plan area is very different from those typically associated with garden and high rise apartments. More than half the resident population lives and works in Montgomery County, 28 percent work in the District of Columbia and more than 20 percent use transit. Households in White Flint spend 30 percent of their income on housing, which is less that the 47 percent County wide. Forty percent of the households are non-family and 38 percent of residents live alone. There is a higher demand for apartments in the White Flint area than County wide. There was a 3.5 percent vacancy in 2006, compared to the County rate of 4.3 percent. There are no nursing homes or group homes within a half mile of the Metro station.

The Montgomery County Department of Housing and Community Affairs (DHCA) considers the White Flint Plan area as part of the Rockville market area, which has the highest rents in the County. The turnover rental rate in the Rockville market was increasing by four percent over the last few years. In 2006, an income of $56,000 was necessary to afford the turnover rent. Incomes of $59,000 were necessary to rent a one-bedroom unit and $80,000 for a two-bedroom unit in the Plan area. An income of more than $100,000 was necessary to purchase and new condominium and $86,000 for an existing condominium.

The White Flint and Vicinity area comprises eight community analysis areas that are more than twice the size of the Plan area. Within the analysis area are about 18,720 residents, 3,000 detached units, 1,140 townhouses, 2,900 garden apartments, and 1,755 high-rise units.

The Plan area has more than 2,300 existing and 2, 220 approved high rise units. More than 1,000 of the existing units are rental units. There are approximately 469 existing and approved moderately priced units.

Proposed Development

	Existing	Existing MPDUs (for sale and rent)	Approved	Approved MPDUs	Proposed	Proposed MPDUs (12.5%)	Proposed workforce (10%)	TOTAL Affordable Housing
Dwelling units	2,321	211	2,220	258	9,800	1,225	980	2,674
Non-residential square feet	5.0 M		1.8 M		5.69 M			

Breakout of MPDUs in White Flint Plan Area

	Total # Units	Total MPDUs	Eff / Studios		1 BR Units		2 BR Units		3 BR Units	
			Markets	(MPDUs)	Markets	(MPDUs)	Markets	(MPDUs)	Markets	(MPDUs)
Gallery Condos	453	(9)								
Sterling Condos	197	(12)								
White Flint Station Condos	261	(27)								
Grand Apts.	549	(112)			297	(82)	201	(30)	51	
Strathmore Court Apts.	202	(51)			74	(26)	77	(25)	32	
Totals	1209	(211)			371	(108)	278	(55)	83	

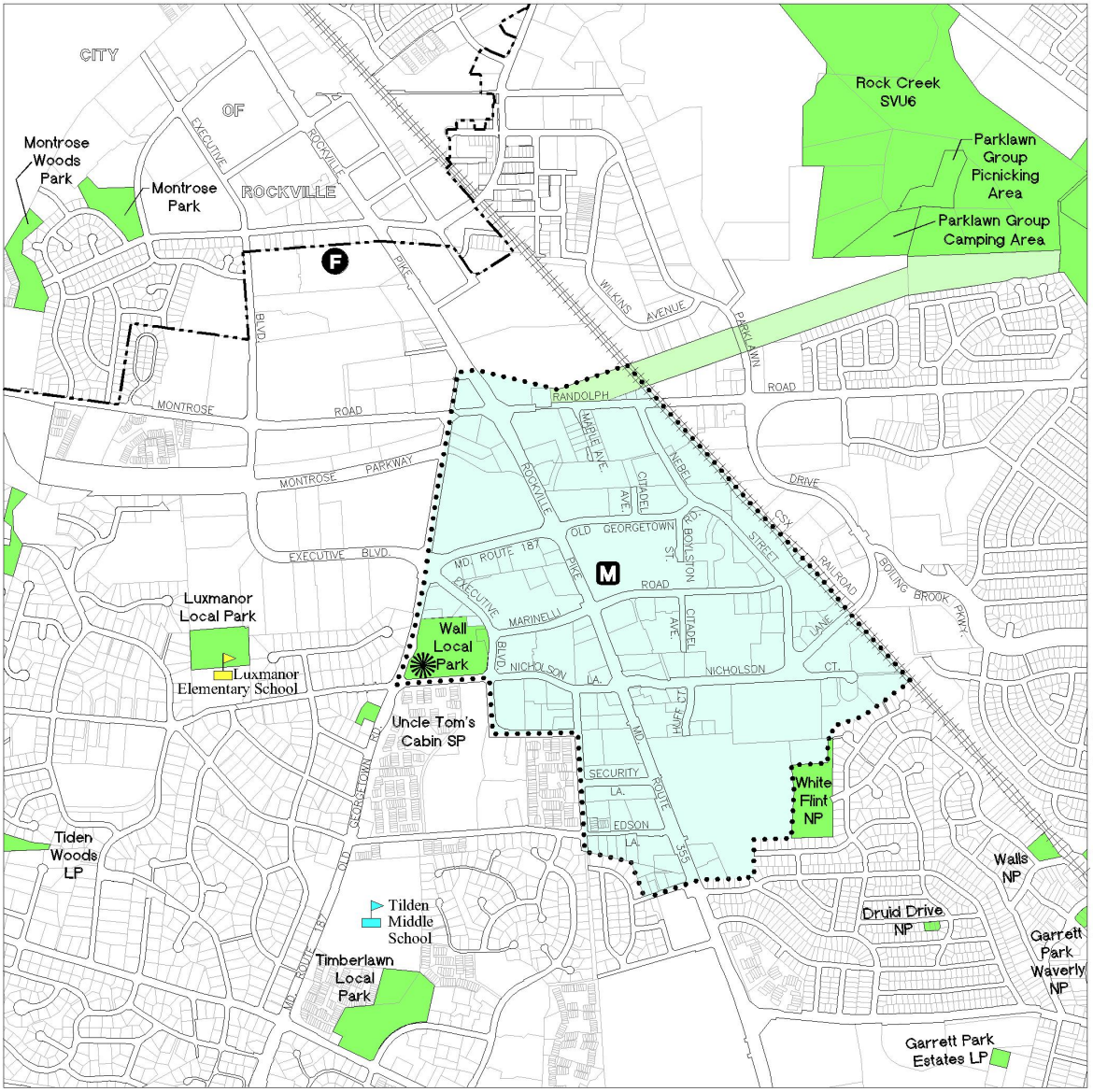
MPDUs in the Pipeline

Preliminary Plan Number		
	Project Name	# MPDUs
120040490	White Flint Metro	169
120060310	White Flint Crossing	66
120070380	White Flint View	23
120080060	Moore's Addition at Woodlawn	0
Total MPDUs in the Pipeline (4/2009)		258

Sizes of Apartments/Condominiums in White Flint Sector Plan Area and Vicinity

	UNITS	Eff/Studio	SF	I BR (MPDUs)	SF	2 BR (MPDUs)	SF	3 BR (MPDUs)	(MPDUs) SF
Sterling Condo	197								
Jefferson at Inigo Crossing Apartments	473	52 (7)	630-1200	230 (35)	600-1200	230 (35)	800-1200	32	1300-1400
Crest at Congressional	146	5 (5)	500-600	103 (18)	600-1000	38	1000-1400	0	
Monterey	432	0		176	600-800	208	1000	48	1400
Wentworth House Apartments	312	51 (7)	580	172 (18)	730-960	89 (14)	1000-2000		
White Flint Station	261							0	
Gallery	453							0	
North Bethesda Market	397	40 (6)		180 (35)		160 (19)		17	
Grand Apartments	549	0		297 (42)		201 (27)		51	
Forum Condo	230			135		60		32	

Figure 1
Existing Public Facilities



White Flint Sector Plan — Staff Draft - March 2008

Appendix 3: Parks, Open Spaces, Trails, and Cultural Resources

For more information: Contact Brooke Farquhar at brooke.farquhar@mncppc-mc.org

Public parkland, open space, and trail connections play an important role in the well-being of a community. In urban areas, parkland enhances quality of life by providing visual relief from the built environment, an opportunity to experience nature, and space to gather, play, and celebrate community life. In addition, open space contributes to the natural environment by providing wildlife habitat, improving air quality, and preserving water quality.

Park Planning Context

The existing pattern of parks in White Flint and the surrounding area reflects the 1992 Plan's land use proposals for White Flint (Figure 1 and Table 1). The new vision for the area includes a more urban pattern and a greater mix of uses. The existing patterns and parks proposals have been reevaluated in light of this urban vision. White Flint's open space system should support a vibrant and sustainable urban center by creating open spaces that will be comfortable, attractive, easily accessible, and provide a range of experiences.

To that end, the public park recommendations support the Plan's proposed typology of open spaces:

- for the Corridor: An active park for White Flint and surrounding areas at Wall Local Park
- for all of White Flint: a central civic green
- for each neighborhood: a neighborhood green
- for each block: an urban square
- for each building: recreation space
- for each residence: private outdoor space.

Park Planning Recommendations

This Plan recommends improvements to Wall Local Park, inclusion of a new civic green urban park, and additional parkland at White Flint Neighborhood Park. These three park recommendations will help implement the plan's Green Space concept (Figure 2), and are summarized in Table 2.

1. Update the master plan for Wall Local Park to reflect its role as the key urban recreation destination in an urbanizing area.

Wall Local Park is approximately 11 acres and within one half mile of the Metro station. The Montgomery Aquatic Center and a large surface parking lot (250 spaces) occupy almost half the site. If the surface parking were to be relocated, Wall Local Park could include more outdoor recreational options for the surrounding community and the future residents.

As White Flint becomes more urban, Wall Local Park should emerge as a major park. The park should be improved as a multipurpose recreation destination for the increasing population of White Flint and surrounding areas and as a link between the Josiah Henson Site (formerly called Uncle Tom's Cabin) and White Flint's civic core. With the park's location only two blocks from the White Flint Metro, connectivity to the station is critical.

The 1992 North Bethesda Plan recommended expanding the park by acquiring two adjoining parcels to the north. This Plan envisions a public/private partnership with adjacent properties to relocate the surface parking within a parking structure built in conjunction with new residential development such as a public/private agreement. This would help redirect public sector funds from building structured parking on-site to improving Wall Local Park. The addition of residential development near the park would provide constant surveillance, enhance park use, and help animate the park.

Figure 2 Green Space Concept

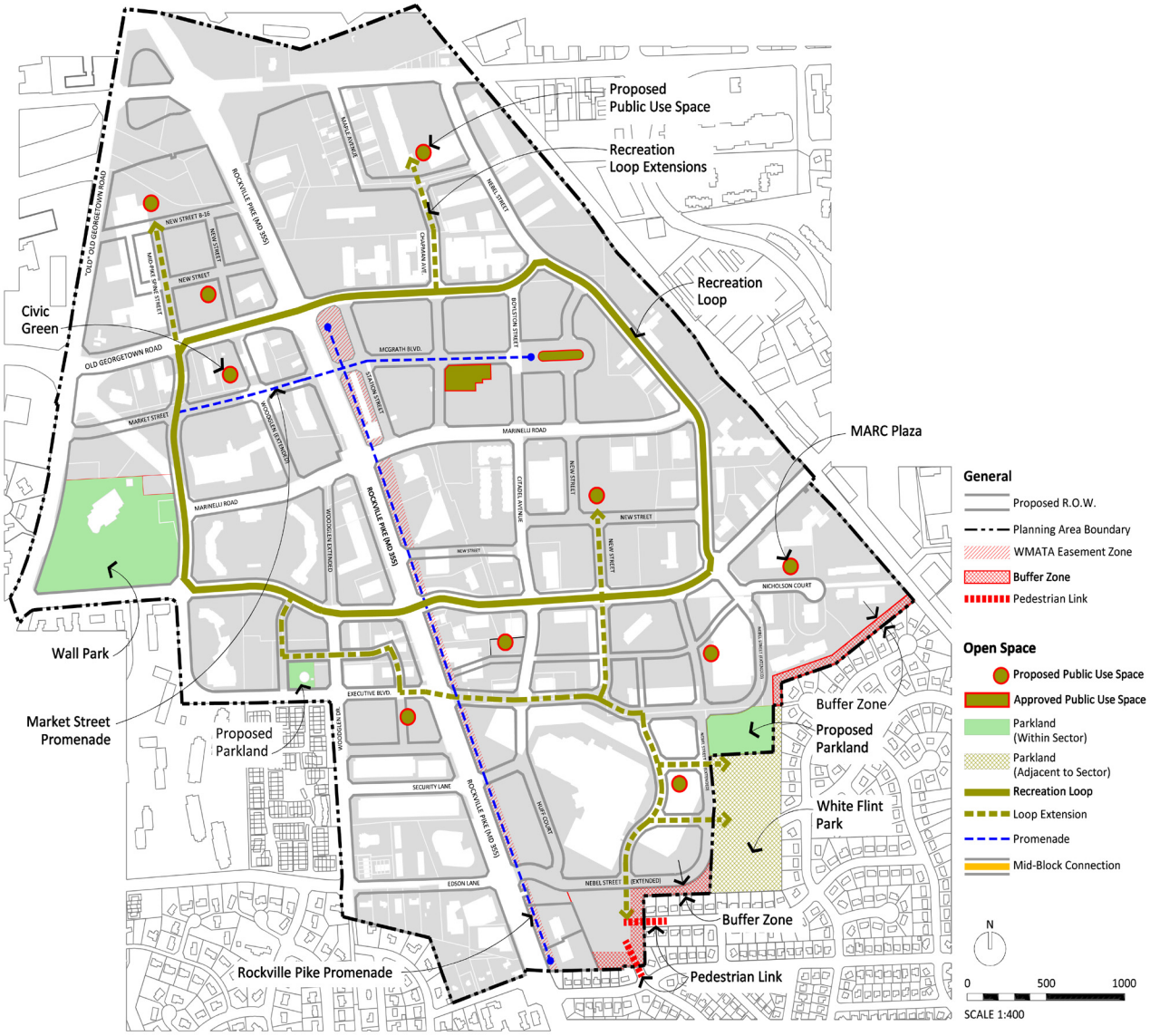


TABLE 1: EXISITING PARKS SERVING WHITE FLINT RESIDENTS

Inventory of all Facilities & Parkland Owned, Leased and/or Maintained by M-NCPPC

Park Status	Park Name	Acreage	Park School	Play-ground	Soft Ball Field	Baseball Field	Basketball/ Multi-Use	Lighted Basketball Ct	Tennis Court	Lighted Tennis Courts	F_S_ OVERLAY	F_S FIELD	Play Field	Picnic Shelters	Open Shelter	Rec Building
PARKS IN WHITE FLINT SECTOR PLAN																
D	WALL LOCAL PARK	12.1405	0	1			1	1								
D	WHITE FLINT NEIGHBORHOOD PARK	8.7194	0	1			2		2							
Subtotal		20.8599														
PARKS IN NORTH BETHESDA PLANNING AREA SERVING WHITE FLINT RESIDENTS																
NEIGHBORHOOD PARKS																
D	DRUID DRIVE NEIGHBORHOOD PARK	0.4105	0	1												
D	GARRETT PARK-WAVERLY NEIGHBORHOOD PARK	1.221	0				1		2						1	
D	WAVERLY-SCHUYLKILL NEIGHBORHOOD PARK	5.7756	0													
D	WELLS NEIGHBORHOOD PARK	1.34	0	1											1	
Subtotal		8.7471														
LOCAL PARKS																
D	FARMLAND DRIVE LOCAL PARK	6.6799	1		2						1					
D	FLEMING LOCAL PARK	12.8	0	1	2			2		2					1	
D	GARRETT PARK ESTATES LOCAL PARK	3.6187	1	1	1						1				1	
D	LUXMANOR LOCAL PARK	6.4932	1		2						1				1	
D	RANDOLPH HILLS LOCAL PARK	18	0	1	2			2	2			1			1	
D	STRATTON LOCAL PARK	11	0	1	1		1		2		1	1			1	
D	TILDEN WOODS LOCAL PARK	7	0	1	1		1			2	1				1	1
D	TIMBERLAWN LOCAL PARK	12.3501	0	1			1					2			1	
Subtotal		77.9419														
NEIGHBORHOOD CONSERVATION AREA																
U	OLD FARM NEIGHBORHOOD CONSERVATION AREA	0.7756	0													
Subtotal		0.7756														
STREAM VALLEY PARKS																
U	CABIN JOHN STREAM VALLEY UNIT #6	21.2062	0													
U	ROCK CREEK STREAM VALLEY UNIT #3	312.5319	0	3			0.5									
U	ROCK CREEK STREAM VALLEY UNIT #5	30.5611	0													
U	ROCK CREEK STREAM VALLEY UNIT #6	193.2718	0													
U	TILDEN WOODS STREAM VALLEY PARK	65.4976	0													
Subtotal		623.0686														
TOTAL		731.3931	3	13	11		7.5	5	8	4	5	4			7	1

Key on reverse side.

Key:
Park Status D - Developed
Park Status U - Undeveloped
Park School 1 - Park School
Park School 0 - Not park school

The redesign of Wall Local Park should incorporate the sizable trees and include a pedestrian connection to the Josiah Henson Site, a cultural site of international significance, about one quarter mile south on Old Georgetown Road and one half mile from the Metro station. The facility plan for Wall Local Park should consider:

- an outdoor splash park
- an expanded indoor pool area
- skateboarding facilities
- playgrounds
- level grass areas for leisure and informal play to serve people of all ages
- flexible space for adults, children, teens, and young adults
- paths
- a pedestrian connection to the Josiah Henson Site.

The areas of highest quality trees along Old Georgetown Road should be retained and enhanced in the park's redesign. Park programming and design will occur as part of the facility plan, with public input, overseen by the Department of Parks and coordinated with the Department of Recreation, and potentially funded by developers through an amenity fund project.

2. Designate a new urban park to serve as the civic green for all of White Flint.

The civic green is proposed to be White Flint's central public place for outdoor community-wide activities and events. It should be located within the Conference Center Block and under Parks Department ownership because of its important role as a focal point of community life for the entire planning area. There are two ways to obtain the land for the civic green: through dedication, if there is assemblage of properties within the Conference Center Block, or through acquisition with public funds.

Whether acquired or dedicated, the civic green should be large enough and appropriately designed to:

- accommodate major outdoor activities, public events, gatherings, and celebrations
- allow for local street closures to provide more event space
- draw people from surroundings to participate in local events
- encourage people to walk, informally gather, eat lunch, etc.
- provide informal grass play space.

If assemblage is not possible, there are properties within theConference Center Block large enough and appropriately located to function as the civic green and should be acquired with public funds. After public acquisition occurs, adjoining property owners may become interested in redevelopment. They may wish to enter into a public/private venture to better accomplish the public purpose of the civic green. In that event, it may be prudent to consider land swaps or other options to achieve the desired outcome.

3. Obtain through dedication, approximately 2.5 acres of property from the White Flint Mall property owners, for park use.

The property abutting the White Flint Neighborhood Park to the north currently serving as surface parking should be dedicated for public park use. The level area is of sufficient size to provide active recreation facilities such as a rectangular field, which would help to offset the estimated needs for the Bethesda Team Area as cited in the 2005 *Parks, Recreation and Open Space Plan* (PROS).

Table 2: Summary of Park Recommendations Proposed Parks in the White Flint Sector Plan Area

Park	Status	Issues	Recommendations
Wall Local Park	Existing facilities on 11.7 acres of parkland include the Montgomery Aquatic Center, playground, trails, racquetball and basketball courts, and 250 parking spaces. The 1992 North Bethesda Master Plan recommended: Extend the existing Wall Local Park at Old Georgetown Road and Executive Boulevard through parkland dedication to include the parcel to the north currently used as an automobile dealership parking lot.	Surface parking occupies most of the open flat area of the site. With White Flint developing as a compact, mixed use community, the parking area would be better utilized as a central open space for outdoor recreation.	Through a public/ private partnership, relocate the existing surface parking within a parking structure built in conjunction with new residential development, instead of acquiring the parcel to the north. This solution gains 2.5 acres of usable parkland in a central location. The addition of residential development near the park would provide constant surveillance, enhance park use, and help animate the park.
Civic Green Urban Park.	The 1992 North Bethesda Master Plan recommended an urban amenity space to be located at the White Flint Metro.	A publically owned, programmed, and maintained open space to serve as the central gathering space for the community is needed.	This plan recommends a public civic green within walking distance of the White Flint Metro, to function as the central gathering space for the White Flint area. Specifically, it is recommended to: • Accommodate major outdoor activities, public events, gatherings, and celebrations. • Allow for local street closures to provide more event space. • Draw people from surroundings to participate in local events.
White Flint Neighborhood Park	Existing park includes tennis, basketball, playground, a trail, and unprogrammed open space.	Areas for active recreation such as rectangular playing fields are scarce in the planning area.	Achieve approximately 2.5 acres in dedication to M-NCPPC for active recreation such as a rectangular playing field.

Park Planning Background

The following park planning issues were addressed in formulating the Plan's recommendations:

- assessing recreational needs in light of a high density, mixed-use environment
- the future of Wall Local Park
- designation of a new urban park
- connectivity between park trails, walking routes, and bikeways
- the relation of public parks and urban open spaces
- a new emphasis on historic and cultural resources.

1. Assessing recreational needs in light of a high density, mixed-use environment.
White Flint is a very small urban area and some of its active recreation needs will be served by parks in adjacent neighborhoods. Providing connections to these parks for White Flint residents is an important Plan objective. Residents have access to many large or specialized recreation facilities such as ice rinks, nature centers, lighted athletic fields, and large picnic and playground areas at Cabin John Regional Park. Rock Creek Stream Valley Park is also nearby and provides opportunities for nature study, and a trail that extends from the District Line north to Rock Creek Regional Park. Within the boundaries of the White Flint Sector Plan area itself, there is currently one local park, Wall Local Park. Luxmanor Local Park, Garrett Park Estates Local Park, Tildenwood Local Park, and White Flint Neighborhood Park are within one mile of the area (Figure 1).

2. The future of Wall Local Park.
This is the only public park in the Plan area and is the location of the Montgomery County indoor Aquatic Center, operated by the Montgomery County Recreation Department. This park should be redesigned to serve an area planned for more intense urban development.

3. Designation of new urban park.
A new urban park, the civic green is needed to serve as the central open space for the White Flint area in the Conference Center block. This would become White Flint's central public place for outdoor community-wide activities and events, near Metro and the highest density mixed-use development.

4. Connectivity between park trails, walking routes, and bikeways.
The Plan area is between two major north-south park trail systems: Rock Creek to the east and Cabin John to the west. Linking these key regional trail and bikeway systems is critical to providing residents greater opportunities to walk and cycle in the area and reduce automobile dependency. The connection will be provided by a planned bike path along Montrose Parkway and a north-south bikeway (a former trolley right-of-way converted to bike use) that is proposed to be extended through the Plan area.

The Plan's proposed loop system is designed to link all proposed neighborhood open spaces, and to provide pleasant walking routes from residences and businesses to open space destinations throughout the Plan area. The proposed east-west promenade traverses the White Flint core. Destinations along the promenade will include Wall Local Park, the Aquatic Center, a civic green in downtown White Flint, and other open space areas on the east side of Rockville Pike.

5. The relation of public parks and urban open spaces.
The Plan's proposed open space system integrates public amenity space with parkland to create a cohesive and logical pattern of open space. Not all open space can or should be publicly owned and managed parkland. Public amenity spaces in new developments will provide a great deal of needed recreation and open space in White Flint.

6. Reflecting new park planning emphasis on historical and cultural interpretation and outreach.
Historic interpretation is an important element of this Plan, particularly in light of the area's proximity to the Josiah Henson Site near Wall Local Park. Connectivity from the Metro through Wall Local Park to the site is an important plan component. More detailed discussion of historic elements is included in the Historic Resources section.

Policy Background

In analyzing the needs for the Plan area, existing plan policies were reviewed, including the North Bethesda/Garrett Park Master Plan (1992), the Land Preservation, Parks, and Recreation Plan (PROS) (2005), and Parks for Tomorrow (1998), a staff supplementary document to the PROS Plan.

The North Bethesda/Garrett Park Master Plan included several park recommendations, two of which are located in the Plan area. The first recommendation was to add land to Wall Local Park by extending it to

include a parcel to the north. This Plan recommends an alternative solution: to gain additional parkland at Wall Local Park by relocating the surface parking offsite. The second recommendation, to provide an urban amenity open space at the White Flint Metro, is replaced in this Plan by a recommendation to provide the civic green urban park within the Conference Center Block, which would locate it within walking distance of Metro.

The PROS Plan guides the County wide pattern of parkland and recreation needs. It projects recreational needs by broad planning areas, rather than by small sub-areas such as White Flint. This Plan's recommendations recognize that urban areas present distinct challenges and opportunities to provide park and recreation resources and strive to incorporate and create those resources with redevelopment.

As shown on the Green Space Concept (Figure 2), proposed facilities are provided through a combination of public and private efforts. Those open spaces that rise to the level of serving as a focal point of community life for the planning area are recommended to be public parks. The neighborhood greens, those open spaces serving each district, are proposed to be provided and managed by the private sector.

Local and neighborhood recreation facility needs are projected by the PROS Plan based on residential population. Its assumptions are suburban—that housing will be built on large tracts of land and that desired facilities are playing fields and courts. While locating new parkland for rectangular fields is desirable in the Plan area, it is difficult to find available land. The 2005 PROS Plan indicated that the Bethesda/North Bethesda planning area, which includes White Flint, needs additional baseball fields, rectangular (soccer fields), and playgrounds. Ballfields are estimated for the entire Bethesda/North Bethesda area which is estimated to need approximately 25 additional fields by 2020, the majority of which are large multi-purpose rectangular fields.

In down-County areas such as White Flint, there is insufficient land on which to locate these fields. Playing field users, who normally drive to fields, will have to use fields in other areas and make more efficient use of existing fields through artificial turf, innovative scheduling, and lighting to increase hours of use. PROS recreation facility estimates for North Bethesda indicate there will be 1.8 additional playgrounds needed by 2020 but that the number of basketball and tennis courts are sufficient. Parks for Tomorrow indicates that urban residential areas need several types of recreation including trails, bike paths and community connectors, neighborhood recreation for new residential areas, and urban recreation and open space for mixed-use development. It recommends using non-park public space in innovative ways to meet recreational demands.

Historic Resources in Parks

As previously mentioned, the future public use and interpretation of the Josiah Henson Site is the Plan's major historic issue. Although outside the Plan's boundaries, this recent acquisition will become a key cultural park, a draw not only for the County, but for national and international visitors. The site is significant because of its association with Reverend Josiah Henson, whose 1849 autobiography inspired Harriet Beecher Stowe's landmark novel, Uncle Tom's Cabin.

The Josiah Henson Site, featuring a frame house (possibly early 19th century) with a log wing (1850-51), was lived in by Isaac and Matilda Riley, whom Henson identifies as his owners. It commanded a 500-acre plantation where tobacco, potatoes, barley, and corn were grown by over 20 enslaved African Americans, including Henson. From tree-ring dating, it is now known that Henson did not live or sleep in the log wing.

Oral histories record that the log wing functioned as a kitchen for the Riley family in the early 20th century. The plantation's main house is the only tangible structure associated with Henson's many years of enslavement. There is perhaps no property in Montgomery County that conjures up images of slavery as much as this resource.

This heritage tourism site is enhanced by its proximity to Metro. Wall Local Park is also near the Josiah Henson Site and it should be part of an attractive pedestrian connection from Metro to the site. Already, tours are being given to large audiences. Since there is currently no parking on site, public transit and nearby public

parking are essential.

A second and related historic resource is within Ken-Gar Local Park outside the Plan's boundaries, but nearby in Garrett Park. The site of the former Newport Mill along Rock Creek, is where Josiah Henson "found religion" by attending the sermon of a visiting minister. Since Henson went on to become a famous preacher and abolitionist, this is a significant part of his life experience. The relationship of this site to the Josiah Henson Site will be interpreted at the Josiah Henson Site, and the historic connection between the two will also be explained at the mill site. The Parks Department's Cultural Resources Stewardship Section will place a new interpretive sign in Ken-Gar Local Park that focuses on Henson's religious conversion.

Appendix 4: Environmental Resources Analysis

For more information, contact Mary Dolan at mary.dolan@mncppc-mc.org

Vision

White Flint will be a green sustainable community with improved air and water quality. The Plan area's environmental function and appearance will be defined by:

- high performance architecture that saves energy
- more transit choices and connections with better facilities for walking and biking that provide alternatives to automobile travel
- a unifying open space system connecting parks and community destinations that creates a healthy urban landscape
- tree canopy that generously shades streets and spaces
- rainfall captured by state-of-the-art techniques such as green roofs and bio-retention areas.

The Plan's environmental goal is to:

- achieve sustainability by minimizing carbon emissions creating a healthy, livable urban environment by improving water and air quality.

Background

The White Flint Sector Plan area is located within the Urban Ring described in the 1993 General Plan Refinement. It also falls within a State-designated Priority Funding Area designed to encourage growth. The study area spans five subwatersheds in the Lower Rock Creek basin and the Cabin John watershed (see White Flint Stream Conditions). The area is highly urbanized and all but a small amount of land has been developed. Most of the development occurred at a time before stormwater management regulations were in place, so all area streams are degraded. There are almost no natural resources or environmental functions remaining and there are no remaining sensitive areas to protect.

Pervious Land Cover

All five subwatersheds influenced by development activity in the White Flint study area have poor or fair stream conditions. The existing land area covered by impervious surface covers approximately 87 percent of the study area leaving about 13 percent pervious and tree canopy shades just 10.5 percent of the study area.

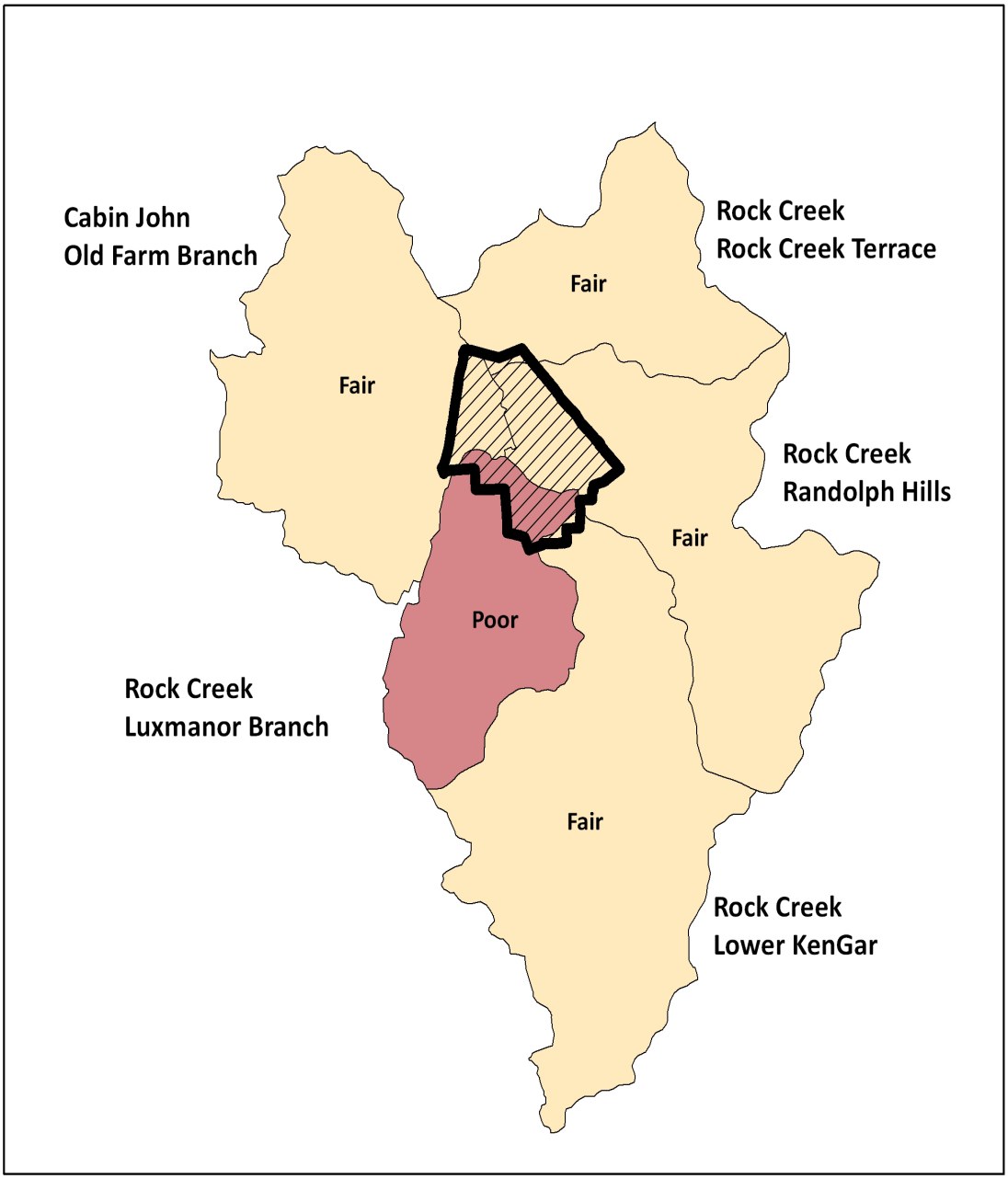
Much of White Flint developed prior to stormwater management regulations. The current water quality in those watersheds is fair or poor and is likely to remain in those categories due to high existing and projected imperviousness. However, stream conditions can be improved and the amount of erosion and nutrients contributed to Rock Creek and Cabin John (and eventually, the Chesapeake Bay) can be significantly reduced through the development process.

A large portion of the area will redevelop over the life of the Plan. This development will have to incorporate stormwater management requirements current at the time of development. Stormwater management requirements have become standard practice since most of White Flint was developed and the State has recently upgraded these standards. The regulations require environmental site design (ESD), which will establish higher standards and innovative treatment methods to the maximum possible extent. Montgomery County will be adopting these requirements as part of the County Stormwater Manual.

Carbon Emission Analysis

Montgomery County Bill number 32-07 establishes a goal to stop increasing greenhouse gas emissions by the year 2010, and to reduce emissions to 20 percent of 2005 levels by the year 2050. Another Montgomery County law (Bill number 34-07) requires the Planning Board to estimate the carbon footprint of areas being master planned, and to make recommendations for carbon emissions reductions.

White Flint Stream Conditions



Our current greenhouse gas modeling effort uses a version of the spreadsheet model developed by King County, Washington. While many of the inputs are derived from national averages, wherever possible we have substituted Montgomery County data derived by the Planning Department's Research and Technology Division. While the model considers all greenhouse gas emissions, results are reported in terms of the equivalent effect of a given volume of carbon dioxide ("carbon dioxide equivalents").

To project total emissions for an area, the spreadsheet model considers embodied energy emissions, building energy emissions, and transportation emissions. The model documentation defines embodied emissions as "emissions that are created through the extraction, processing, transportation, construction and disposal of building materials as well as emissions created through landscape disturbance (by both soil disturbance and changes in above ground biomass). Building energy emissions are created in the normal operation of a building including lighting, heating cooling and ventilation, operation of computers and appliances, etc. Transportation emissions are released by the operation of cars, trucks, buses, motorcycles, etc.

Inputs for each planning area include the numbers and types of housing units and the square footage of different categories of retail, commercial, and public buildings. The model is run once using 2005 data to establish baseline results. The model is run again using housing units, and commercial and retail space projected to develop under the master plan to estimate future greenhouse gas emissions. The model estimates emissions over the life of the development, and results are given in metric tons of CO2 equivalents.

This is different from the County Emissions Inventory prepared by the Montgomery County Department of Environmental Protection, which estimates annual emissions.
The model only deals with emissions; no calculations are included to estimate potential carbon offsets from best management practices. The estimates also assume "business as usual" when projecting emissions. As estimates of building energy consumption, vehicle fuel efficiency, vehicle miles travelled, and other input parameters change, it may be possible to re-run the model to see how design and technology improvements affect projected outcomes. Many of these parameters are changing constantly, so input parameters are a moving target.

The results are also restricted to estimates for a specific master plan. Overall greenhouse gas emissions are projected to increase due to increased population and commercial development within a given master or sector plan area. As model results are evaluated, we must bear in mind that Montgomery County's greenhouse gas reduction targets are considered at a County wide scale.

Modeling results using these assumptions, along with sprawl scenario estimates are shown in the table below. Sprawl scenario estimates assume that growth beyond buildout of the 1992 plan would have occurred in a sprawl pattern outside White Flint, causing the emission of 40 percent more carbon than if it were built in White Flint. The land use pattern in White Flint will prevent the emission of approximately six to seven million metric tons of carbon equivalent over the lifetime of development. This reflects the physical savings of more compact building types and reduced vehicle miles traveled as compared to the sprawl scenarios. The Plan area is proposed to accommodate from 10 to 13 percent of the anticipated growth in population in Montgomery County at buildout on less than 0.2 percent of the County's land area.

Estimated Baseline and Projected Carbon Emissions

Year	Emissions
	MTCO2e*
2005 (baseline)	13,000,000
Buildout (current zoning)	21,000,000
2030 Staging Capacity	29,000,000
2030 Staging Capacity Sprawl	35,400,000
2030 Potential Phase 4	32,000,000
2030 Potential Phase 4 Sprawl	39,600,000

*Metric Tons Carbon Dioxide Equivalents
(over the life of the development)

The Plan makes several recommendations intended to reduce carbon emissions, beginning with the recommendation to make White Flint a model of smart growth. Some of the smart growth effects are modeled in the results above but it is difficult to know the full range of behavior changes that the new White Flint will inspire. The vision is to create a compact community of mixed uses, enabling residents to live, work, and shop in a walkable area. The smart growth approach is enhanced by the provision of mass transit service, further enabling people to run errands and to commute without a car.

Many Plan recommendations will promote reductions in carbon emissions (such as open space, bicycle routes, and pedestrian priority streets) and many programs outside the planning process that will result in substantial reductions over time. Montgomery County's Climate Protection Plan has many recommendations for reducing carbon emissions, but we can only model the two with specific targets relating to master planning:

- 50 percent of residences will reduce energy consumption by 25 percent (resulting in a 12.5 percent reduction in existing and proposed residential building emissions)
- commercial properties will reduce their energy consumption by 25 percent.

Once the baseline projections were made, the model was used to test the recommendations for carbon footprint reduction to determine the magnitude of effects on the carbon footprint of White Flint beyond that already discussed. The results below illustrate the potential reduction for either the Staging Capacity or the Potential Phase IV projections.

Potential Carbon Footprint Reduction from 2030 Projection

Recommendations	Reduction From 2030 Projections
50% of residences reduce energy consumption by 25% (12.5% reduction)	2%
Commercial properties reduce energy consumption by 25%	8%

Further reductions in carbon footprint will come from changes in building and site design, improvements in technology for vehicles and building energy conservation as well as the behavioral changes enabled by a compact, livable urban environment.

Community Water and Sewer

Community (public) water and sewer service is available throughout the Plan area and is provided by the Washington Suburban Sanitary Commission (WSSC). There is sufficient capacity to support planned development but there may be local system improvements needed for individual projects, which will be determined during development review.

Water

The Plan area lies within the Montgomery Main Service Area, which is served with water from the Potomac

Water Filtration Plant. A major project in the Plan area is the Potomac Bi-County Water Tunnel (formerly called the Bi-County Water Supply Main). The proposed tunnel is a new 84-inch diameter water main designed to meet growing demand and ensure continued reliable water supply. The new tunnel will connect two existing mains deep underground. The western connection is northeast of Tuckerman Lane's passage under I-270 in Rockville and the eastern connection is near the intersection of Beach and Stoneybrook Drives in Kensington. There is no expected impact to the Plan area.

There are, however, two high pressure water mains that generally follow Nicholson Lane through the Plan area. Projects here may be asked to set back their development some distance from those mains, but that would be determined at time of development review. The location of these mains may affect road improvements or improvements to the mains may need to be included in road projects.

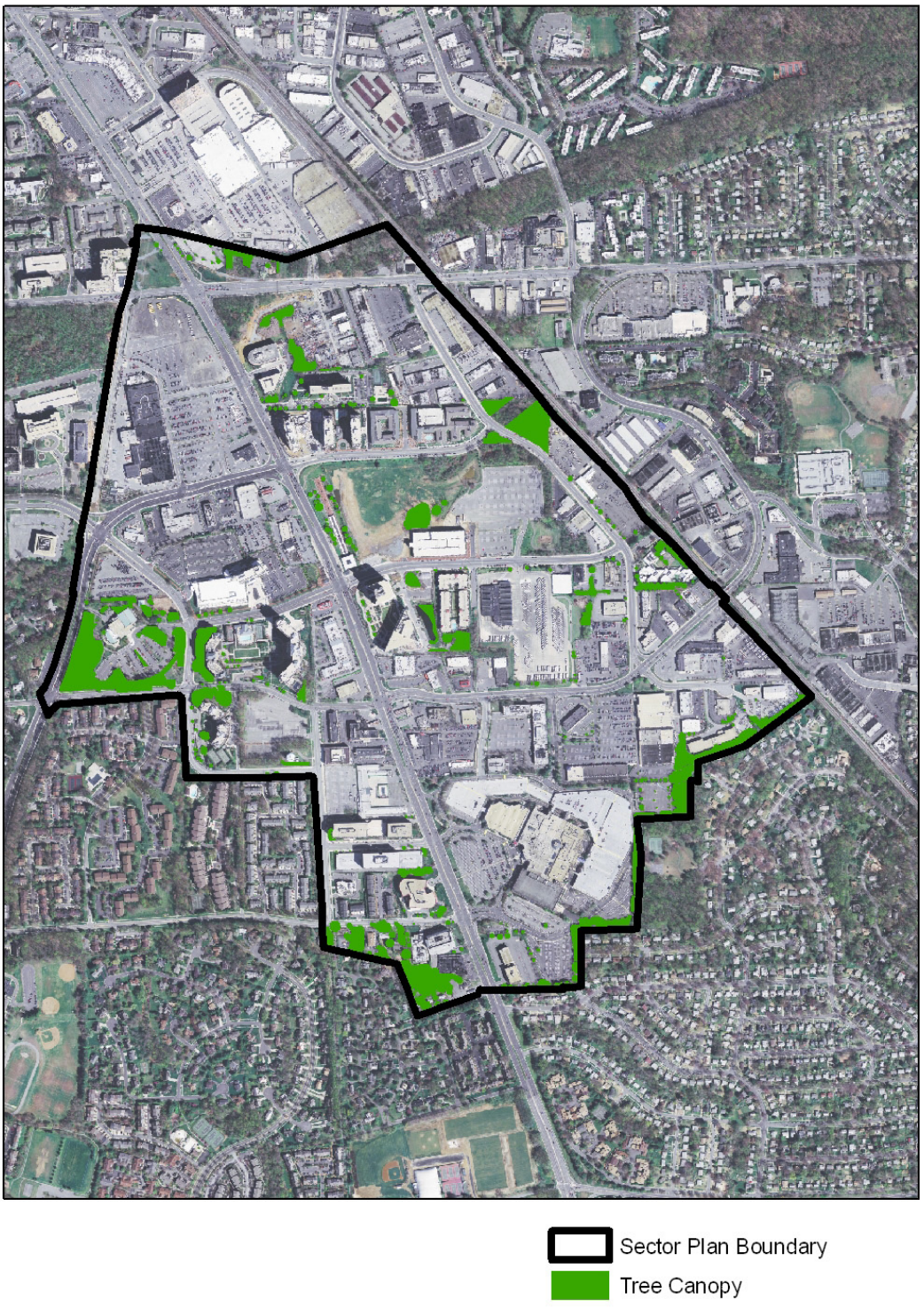
Sewer

Wastewater in the Plan area flows through the Rock Creek conveyance system from the Rock Creek Basin in the WSSC service area to ultimate treatment at the Blue Plains Wastewater Treatment Plant in Washington, D.C. The sewer transmission line that provides service for the area runs along Rock Creek to the east of the Plan area.

During significant storms, up to six million gallons of the peak wastewater flows are diverted and stored at the WSSC's Rock Creek Storage Facility. The facility, located downstream of the Plan area, is designed to limit peak flow at the D.C. line. Stored wastewater flows are later allowed back into the Rock Creek conveyance system to drain by gravity flow under low demand conditions. This storage and release is arranged under an inter-municipal agreement with the District.

Local sewer capacity will be an issue and will be addressed for each project as development proposals are submitted for review.

White Flint Tree Canopy



Appendix 5: Financing

For more information, contact Jacob.Sesker at jacob.sesker@mncppc-mc.org

Staff presented the following four documents to the Planning Board as part of their worksessions following the public hearing:

- February 19, 2009 Memorandum
- February 19, 2009 Staff Report
- May 7, 2009 Memorandum
- June 4, 2009 Amendment to May 7, 2009 Memorandum, per Planning Board (Attachment D)

February 19, 2009 Memorandum

Agenda Item # 6
February 19, 2009

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

February 12, 2009

COVER MEMORANDUM

TO: Montgomery County Planning Board

VIA: Piera Weiss, Master Planner (Vision Division) PW
Dan Hardy, Chief (Move Division) and Acting Chief (Explore Division) DKH

FROM: Jacob Sesker, Planner Coordinator (Explore/Research) JNS

SUBJECT: Cover Memo-White Flint Financing

STAFF RECOMMENDATION

Review Staff analysis.

BACKGROUND AND CONTEXT

The attached memo contains the technical analysis of the financing mechanism described in the White Flint Sector Plan. Specifically, the attached memo examines the extent to which public sector gap financing could be required to pay for "District" infrastructure inside the Sector Plan area.

Throughout the past year, Staff has discussed with the Board a number of specific implementation tools that might be appropriate for application in the White Flint Sector Plan. Among the tools discussed were specific financing and administrative mechanisms.

In general, financing and administrative mechanisms were suggested because of the significant costs of infrastructure and the practical need for greater certainty in infrastructure programming. The Planning Board directed Staff to pursue an ambitious approach, which includes an Authority with dedicated streams of funding and which has the powers necessary to improve the certainty that all necessary infrastructure projects will be delivered when needed.

The "District" Financing Mechanism

The financing mechanism supported by the Board has been called a "District" financing mechanism, because it works by capturing private and public revenues generated by the new development within the Sector Plan area, or "District." This concept is consistent with the current best practices in transit area reinvestment and redevelopment.

It is assumed that the "District" will fund the construction or reconstruction[1] of the following facilities, as set forth in the Sector Plan:

- Rockville Pike ($66M)
- Metrorail Station north entrance ($25M)
- MARC station and supporting access ($13M)
- Circulator shuttles ($5M)
- Local streets not required for site access and design ($62M)

Those projects will be funded through a combination of private and public funds. The sources of those funds will include:

- Transportation impact taxes charged to new residential development
- Transportation impact taxes charged to new commercial development, if necessary
- A special tax/assessment of up to 10% above the current overall real property tax (ad valorem) of all new and existing commercial uses/development
- Public financing (through TIF financing or GO bonds) to cover financing gaps

The attached Technical Memorandum represents Staff's analysis of the performance of the financing mechanism. This analysis is intended to provide the Board with additional information regarding the costs to the public sector of providing gap financing for the "District" infrastructure program.

A Note on Administration and Financing

The administrative mechanism—to the extent that it can be separated from the financing mechanism—is not the subject of this analysis or this work session. The administrative mechanism supported by the Planning Board would have powers greater than any currently existing urban districts in Montgomery County. Reflecting the Planning Board's position, the Sector Plan recommends the creation of the White Flint Redevelopment Implementation Authority, which would be endowed with broad powers and carefully defined responsibilities, as set forth in the Sector Plan itself.

The purpose of the Authority is to facilitate the orderly implementation of the Sector Plan by delivering meaningful chunks of infrastructure when that infrastructure is needed. The administrative mechanism plays an important role in advancing the infrastructure staging plan. Because the planned improvements to Rockville Pike must occur after a more robust street network is constructed, the administrative mechanism that is ultimately adopted should be able to deliver that robust street network in a timely fashion.

[1] Estimates do not include the cost of right-of-way acquisition.

SUMMARY OF FINANCING MECHANISM ISSUES

1) *Should new residential development make a payment to the District that is equivalent to the current transportation impact tax for residential development?*

Staff's analysis (see attached Technical Memorandum) indicates that a residential impact tax (or equivalent) payment to the District would meet approximately 7% of the total cost of the District transportation projects. The residential impact tax payment would contribute a greater portion of the total project costs to the extent that development takes advantage of the Alternative Review Procedure, for which higher impact taxes and a TDM monitoring program can replace the LATR and PAMR tests for transportation system adequacy. Under the proposed implementation authority scheme, however, the LATR and PAMR tests would be replaced by the pro-rata mechanisms described in this memorandum, so that no property owner would have an incentive to use the Alternative Review Procedure.

Staff continues to recommend that new residential development make payments to the District. These payments will help to ensure that new development (as opposed to existing uses) and residential development (as opposed to commercial development) contribute to the costs of new infrastructure. By making these payments to the District, rather than to the County, these revenues can reduce the borrowing risk associated with Stage 2 and Stage 3 infrastructure. Staff acknowledges that by directing those payments to the District, the County might lose some potential impact tax revenue. However, the magnitude of that loss is unclear given the current crediting system.

Staff continues to recommend that those payments be in an amount equivalent to the current transportation impact tax. Staff believes that this is the best approach given concerns about housing affordability on the one hand, and the potential effect of "crediting" on the other hand ("crediting" refers to the credits against the impact tax payments given for required traffic mitigation measures).

2) *Should the current transportation impact tax (or equivalent) payment by new commercial development be eliminated or reduced for the White Flint Sector Plan?*

Staff's analysis (see attached Technical Memorandum) indicates that the majority of the costs of District transportation infrastructure would be borne by new and existing commercial uses. The 10% special assessment on all new and existing commercial uses would result in significantly greater revenue than the current transportation impact tax on new commercial development. One reason for this is that the Sector Plan adds more residential capacity than commercial capacity, but the current development is predominantly commercial.

Staff continues to recommend elimination (or at least reduction) of the current transportation impact tax on new commercial development. Staff assumes that it will be politically difficult to impose a special assessment or other additional costs for commercial property owners if that

imposed cost is in addition to the existing transportation impact taxes. Additionally, a special assessment on all new and existing commercial uses might serve to incentivize redevelopment; to simultaneously charge impact taxes on new commercial development might substantially reduce the incentive effect of the special assessment.

3) *Should the private portion of District financing come from a special tax/assessment on all new and existing commercial uses?*

Staff's analysis indicates that the special tax/assessment on commercial uses will generate substantially more revenue than would be generated by the current impact tax payments charged to new commercial development. The analysis shows that the financing mechanism relies upon the special assessment for more than 60% of the cost of District infrastructure.

The Sector Plan recommends replacing one-time payments by new development (impact taxes) with a special tax/assessment on all new and existing commercial uses. This special tax/assessment generates recurring payments which provide annual revenues. Those revenues represent a dedicated stream of revenues against which the District can borrow.

4) *Should the special tax/assessment on all new and existing commercial uses be established at a rate equal to 10% above and beyond the current overall ad valorem real property tax bill?*

Reducing the special assessment to less than 10% on top of the overall ad valorem real property tax would increase the size of the financing gap to be filled by public sector. If establishing the special assessment as an ad valorem charge implicates charter limit issues, other solutions could be appropriate. However, any such alternative should generate a similar level of revenue and represent a similarly equitable distribution of costs.

5) *Should incremental public sector revenues be used to fill the financing gap?*

Staff analysis indicates that the cost of the master planned transportation infrastructure will likely exceed the ability of the private sector to pay. To the extent that burden falls on new development through impact taxes or exactions, the cost would stymie new development. To the extent that burden falls on existing uses, the result would be a significant increase in the tax bills of going concerns. Assuming that infrastructure costs cannot be reduced, a logical alternative to placing the burden solely on the private sector would be to provide public sector gap financing. The new development will generate a substantial tax increment, a portion of which could be applied to close the financing gap.

ISSUES FOR FUTURE CONSIDERATION

Staff has received testimony from interested stakeholders as well as other information from Staff's continuing engagement with the Executive Branch. This new information has raised the following concerns:

- The relative effectiveness of the proposed administrative mechanism when compared to existing implementation tools
- The assumptions regarding ROW acquisition costs for District transportation projects may understate costs to both the public sector and the District
- The need for greater detail which party will build the facilities funded by the District financing mechanism
- The issue of whether the MARC station and Metro station improvements should be funded by the District
- T effect on the financing mechanism of any changes to the transportation network, land use (density and mix), and administrative mechanism.

All issues raised by testimony—including those outlined above—will be addressed by Staff in future work sessions.

NOTE: EXECUTIVE TESTIMONY AND INTER-AGENCY IMPLEMENTATION DISCUSSIONS

The written testimony submitted by the County Executive expresses fundamental concerns regarding the proposed administrative mechanism. The Executive feels that existing structures would achieve the Sector Plan's objectives.

Staff began the process of engaging the Executive Branch in spring 2008. To date, a number of meetings have been held to discuss issues related to implementation of the Sector Plan. Staff continues to work with the Executive Branch in an effort to better understand the Executive's concerns.

NOTE: ECONOMIC ANALYSIS PRESENTED BY THE DEVELOPMENT COLLABORATIVE

Efforts by a group of property owners in the White Flint Sector Plan area (the Development Collaborative[2]) culminated in the production of a report, which was entitled "White Flint Sector Plan: Financial Analysis, Economic Benefits & Infrastructure Financing". That report was not submitted as public testimony, but in November that report was distributed to the Planning

[2] The "Development Collaborative" includes Federal Realty Investment Trust, The JBG Companies, Lerner Enterprises, The Tower Companies, Combined Properties, and The Holladay Corporation

Board, as well as members of both the legislative and executive branches of government. That report addressed three separate issues:

- "Economic benefits of development within the White Flint Sector Plan area to Montgomery County"
- "Public-private financing strategy for critical transportation improvements"
- "Economic viability of development in the context of the TMX-zone and White Flint Sector Plan requirements"

Staff's Technical Memorandum addresses only the second of these three issues, and in no way is intended to either rebut or endorse that analysis.

In its report, the Development Collaborative argues that while the benefits of redevelopment in White Flint are substantial, Montgomery County's zones, policies and regulations—and certain aspects of the Draft Sector Plan—will render much of the redevelopment infeasible. The Development Collaborative lists eighteen changes to the Draft Sector Plan, County policies, and County regulations that, in its estimation, improve the viability of redevelopment.

Of the eighteen suggested changes, only three pertain uniquely/specifically to the Draft Sector Plan (a more flexible mix of uses, allow above grade parking subject to reasonable design guidelines, and substantial changes to the transfer of density proposal aspect of the Sector Plan's zoning capacity). The remaining suggested changes address issues that are beyond the purview of the master plan process, and which would be typically addressed in discussions regarding regulatory process, the annual growth policy, affordable housing policy, and parking policy.

Agenda Item # 6
February 19, 2009

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

February 12, 2009

TECHNICAL MEMORANDUM

TO: Montgomery County Planning Board

CC: Piera Weiss, Master Planner (Vision Division) PW

VIA: Dan Hardy, Chief (Move Division), Acting Chief (Explore Division) DKH

FROM: Jacob Sesker, Planner Coordinator (Explore/Research) JNS

SUBJECT: Technical Memo-White Flint Financing

1.0 INTRODUCTION

This memorandum contains Staff's technical analysis of the financing mechanism proposed in the White Flint Sector Plan. The memorandum includes the following information:

- Section 1 includes a discussion of the background of this analysis and a summary of findings.
- Section 2 includes an explanation of the assumptions used to establish a build-out of the development program and an analysis of the various revenues generated by that build-out.
- Section 3 (and Appendix A) describes the transportation system cost estimates.
- Section 4 provides an analysis of the proposed financing mechanism, while Appendix B demonstrates the sensitivity of the proposed mechanism to some alternative assumptions.

1.1 BACKGROUND

The most recent Planning Board discussions dealing with financing and administration took place on the following dates:

- September 11, 2008
- October 30, 2008

On September 11, 2008, Staff sought guidance from the Planning Board with respect to a series of issues. In that session, the Board expressed to Staff its support for the following financing principles, taken from Staff's September 11th cover memorandum:

- "Find ways to capture as much of the impact tax and general fund tax revenue as possible for projects within the district that will resolve short-term mobility issues, including possibly creating one or more districts, expanding the Metro Station Policy Area boundary and supporting changes to the Annual Growth Policy in 2009 that would capture impact taxes paid within a metro station policy area for use only on capital projects within the Metro Station Policy Area."

- "Find ways to leverage future private sector revenues to decrease the up-front burden of impact taxes, thereby freeing up more private capital for investment in income/revenue producing uses, including possible road club or special tax/assessments applied to all new and existing commercial uses in lieu of impact taxes on commercial development."

- "Find ways to leverage future general fund tax revenues to pay for reconstructing Rockville Pike and undergrounding utilities along the Pike to create a better street-level environment and improved pedestrian and bicycle mobility that benefit all property owners within the district, including using Tax Increment Financing (TIF) or TIF-like mechanisms."

On October 30th, Staff came back to the Planning Board with a more detailed discussion of the issues associated with the implementation of the Sector Plan and a description of proposed financing and administration mechanisms. At that time, the Planning Board directed Staff to return with a quantitative analysis of the financing mechanism following the public hearing.

The financing mechanism would pay for a subset of all master planned transportation facilities. The financing mechanism proposed, often referred to as a "District" financing mechanism would receive funds from multiple sources. Those sources would include:

1) Transportation impact taxes (or equivalents) charged to new residential development[1]
2) Transportation impact taxes charged to new commercial development, if necessary[2]
3) A special tax/assessment of up to 10% on the value of all new and existing commercial uses/development[3]
4) Public financing (through TIF financing or GO bonds) to cover financing gaps[4]

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[1] Impact fees or taxes are not ad valorem, and thus have the advantage of not being subject to limitations on increasing property taxes.

[2] It is envisioned that the commercial impact taxes would be eliminated.

[3] In some other jurisdictions, "Transportation Improvement Districts" (TIDs) have been used to finance major roadway improvements. Generally, TIDs are funded through a special assessment on affected properties. TIDs were profiled as a "best practice" in a recent report by the Office of Legislative Oversight (Report Number 2009-6, Transportation Demand Management Implementation, Funding, and Governance, pp. 48-49).

[4] The idea of capturing and reinvesting a portion of the incremental taxes generated by new, transit-oriented development, is becoming increasingly popular. For example, a continuing education training session offered by the American Institute of Certified Planners ("Transit District Investment") discusses Pennsylvania's approach to capturing and reinvesting incremental revenues.

The proposed financing mechanism does not contemplate any increased tax burden on residential development. Rather, the increased burden would fall entirely on commercial development. This concession is consistent with the County's housing affordability goals, especially in transit-served locations, and is consistent with the Sector Plan objective to add residential density.

1.2 CAVEATS

- This analysis assumes an even pace of development until build-out. The nation's economy is in an economic downturn that will likely be both long and severe. It is difficult at this stage to speculate on the extent to which this economic downturn will affect future development activity in Montgomery County.
- This analysis does not include the cost of acquiring rights-of-way for District infrastructure projects. It is assumed that all ROW is dedicated or acquired using other sources of funds. While the Sector Plan recommends that the Authority have power of eminent domain, the cost of wielding that power (by the Authority or by the public sector) is not a part of this analysis.
- This report does not include an analysis of the ongoing (operation and maintenance) costs of any Sector Plan facilities, nor does it address the capital costs of non-transportation facilities (e.g. urban library, fire substation, etc.).
- This is not an omnibus "economic issues" report, but is instead an analysis of the performance of the proposed financing mechanism under specified assumptions. This report does not include analysis of development feasibility, or analysis of realistic short-term or mid-term absorption rates. Similarly, this report does not contain economic analysis of the impact of the Sector Plan recommendations on certain geographic or interest-based communities. Additionally, this analysis does not contain an analysis of the costs of the County's exactions, or the extent to which existing exactions have been internalized in land values.

1.3 SUMMARY OF FINDINGS

Residential impact tax equivalent payments

Capturing residential impact taxes for capital projects within the District is a current best practice in transit area redevelopment and reinvestment. In the White Flint Sector Plan, those captured impact taxes (or equivalents) would be directed to pay for District projects rather than public sector projects. Overall, the impact taxes pay for roughly 7% of the total cost of District infrastructure.

Elimination of commercial impact taxes

The premise for eliminating or reducing the commercial impact taxes is that a special tax/assessment of 10% would generate more revenue than the transportation impact taxes charged at current rates. It is assumed that it would be difficult to impose an increase in taxes, or expect a voluntary increase, without offering a reduction or elimination of the impact taxes. The analysis shows the special tax/assessment will generate many times more revenue than would be generated by the impact tax.

Special tax/assessment

Charging a special tax/assessment on all new and existing commercial uses in White Flint equal to 10% (ad valorem) above current property tax rates could pay for roughly 63% of the District transportation infrastructure. Those revenues would represent a dedicated source of revenues against which the District could borrow. Though ad valorem is an equitable manner to distribute the tax incidence, other methods capable of generating comparable revenues would be acceptable.

Public sector gap financing

To finance the "District" infrastructure entirely with private money would result in a substantial increase in taxes/assessments or impact taxes. Assuming that those alternatives are too onerous, gap financing will be necessary to advance the staging plan. Given the current list of District projects, the public sector would need to provide gap financing to cover 30% of the cost of District infrastructure.

2.0 BUILD-OUT, ASSESSMENTS, AND REVENUES

Staff has presented to the Planning Board a staging capacity build-out density of nearly 30 million square feet. That total includes residential and non-residential uses. The build-out density is not equal to the total zoning capacity of the Sector Plan, but rather the total staging capacity of the Sector Plan. The splits between uses were determined in part by a desire to achieve greater potential density.

Residential

- Existing: 2,259 dwelling units
- Pipeline: 2,220 dwelling units
- Net New: 9,800 dwelling units

Non-residential

- Existing: 5.5 million square feet
- Pipeline: 1.79 million square feet
- Net New: 5.69 million square feet

The density numbers above (dwelling units and commercial square feet) ultimately drive the revenue assumptions and the subsequent analysis of the proposed financing mechanism.

2.1 BUILD-OUT

As presented, the Sector Plan will be "built out" when the net new development reaches the plan's transportation capacity.

The following table represents the net new development by use under the transportation capacity of the Sector Plan as currently proposed.

Table 1: New development, net of existing and pipeline (by use)

TOTAL NET NEW DEVELOPMENT	
Dwelling Units	9,800
Office	2,831,746
Retail	1,887,830
Industrial	317,058
Other	0
Hotel	653,366

For purposes of this analysis, it is assumed that build-out of net new development occurs over a 30-year development timeline. The following additional assumptions were made in creating the build-out scenario:

- Pipeline development (residential and non-residential) is spread evenly over years 1 through 5.
- No pipeline development (residential and non-residential) is redeveloped during the 30 year build-out horizon.
- Net new development is spread evenly across years 6 through 30 for all uses. Put differently, $1/25^{th}$ of all net new development for each use comes on line in each of those years.
- No existing residential development is redeveloped.
- All existing non-residential is redeveloped, with that redevelopment spread evenly over the 30-year build-out horizon. Put differently, $1/30^{th}$ of all existing non-residential development is replaced every year (one square foot for one square foot) with new, higher value development.

Table 2: Cumulative residential units, by year

TOTAL RESIDENTIAL DEVELOPMENT ON THE GROUND (UNITS)				
Year	Existing	Pipeline	New	Total
0	2,259	-	-	2,259
1	2,259	444	-	2,703
2	2,259	888	-	3,147
3	2,259	1,332	-	3,591
4	2,259	1,776	-	4,035
5	2,259	2,220	-	4,479
6	2,259	2,220	392	4,871
7	2,259	2,220	784	5,263
8	2,259	2,220	1,176	5,655
9	2,259	2,220	1,568	6,047
10	2,259	2,220	1,960	6,439
11	2,259	2,220	2,352	6,831
12	2,259	2,220	2,744	7,223
13	2,259	2,220	3,136	7,615
14	2,259	2,220	3,528	8,007
15	2,259	2,220	3,920	8,399
16	2,259	2,220	4,312	8,791
17	2,259	2,220	4,704	9,183
18	2,259	2,220	5,096	9,575
19	2,259	2,220	5,488	9,967
20	2,259	2,220	5,880	10,359
21	2,259	2,220	6,272	10,751
22	2,259	2,220	6,664	11,143
23	2,259	2,220	7,056	11,535
24	2,259	2,220	7,448	11,927
25	2,259	2,220	7,840	12,319
26	2,259	2,220	8,232	12,711
27	2,259	2,220	8,624	13,103
28	2,259	2,220	9,016	13,495
29	2,259	2,220	9,408	13,887
30	2,259	2,220	9,800	14,279

For purposes of this analysis it is assumed that in thirty years there will be 14,279 residential units within the boundaries of the White Flint Sector Plan. All pipeline development is spread evenly over the first five years, with all net new development spread evenly over the remaining twenty-five years.

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Table 3: Cumulative non-residential square feet, by year

TOTAL NON-RESIDENTIAL DEVELOPMENT ON THE GROUND (SQUARE FEET)					
Year	Existing	Pipeline	Net New	Replacement New	Total
0	*5,500,000*	-	-	-	*5,500,000*
1	5,316,667	358,000	-	183,333	5,858,000
2	5,133,333	716,000	-	366,667	6,216,000
3	4,950,000	1,074,000	-	550,000	6,574,000
4	4,766,667	1,432,000	-	733,333	6,932,000
5	4,583,333	1,790,000	-	916,667	7,290,000
6	4,400,000	1,790,000	227,600	1,100,000	7,517,600
7	4,216,667	1,790,000	455,200	1,283,333	7,745,200
8	4,033,333	1,790,000	682,800	1,466,667	7,972,800
9	3,850,000	1,790,000	910,400	1,650,000	8,200,400
10	3,666,667	1,790,000	1,138,000	1,833,333	8,428,000
11	3,483,333	1,790,000	1,365,600	2,016,667	8,655,600
12	3,300,000	1,790,000	1,593,200	2,200,000	8,883,200
13	3,116,667	1,790,000	1,820,800	2,383,333	9,110,800
14	2,933,333	1,790,000	2,048,400	2,566,667	9,338,400
15	2,750,000	1,790,000	2,276,000	2,750,000	9,566,000
16	2,566,667	1,790,000	2,503,600	2,933,333	9,793,600
17	2,383,333	1,790,000	2,731,200	3,116,667	10,021,200
18	2,200,000	1,790,000	2,958,800	3,300,000	10,248,800
19	2,016,667	1,790,000	3,186,400	3,483,333	10,476,400
20	1,833,333	1,790,000	3,414,000	3,666,667	10,704,000
21	1,650,000	1,790,000	3,641,600	3,850,000	10,931,600
22	1,466,667	1,790,000	3,869,200	4,033,333	11,159,200
23	1,283,333	1,790,000	4,096,800	4,216,667	11,386,800
24	1,100,000	1,790,000	4,324,400	4,400,000	11,614,400
25	916,667	1,790,000	4,552,000	4,583,333	11,842,000
26	733,333	1,790,000	4,779,600	4,766,667	12,069,600
27	550,000	1,790,000	5,007,200	4,950,000	12,297,200
28	366,667	1,790,000	5,234,800	5,133,333	12,524,800
29	183,333	1,790,000	5,462,400	5,316,667	12,752,400
30	-	1,790,000	5,690,000	5,500,000	12,980,000

With non-residential development, all existing space is redeveloped over the course of the 30-year development timeline, with that redevelopment occurring at an even pace. As with net new residential, net new non-residential begins to come on line in the sixth year, with 1/25th of all net new development coming on-line in each year thereafter. It is assumed that in thirty years there will be a total of 12,980,000 total square feet of non-residential (i.e. commercial) use.

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2.2 ASSESSMENT VALUE OF BUILD-OUT

The next step in Staff's analysis was to translate build-out into assessment values over time. Assessments occur every three years. During the first three year cycle after construction, assessments are based on development costs of the improvements. When the next cycle begins, the improvements are assessed based on market value.

Table 4: Development cost and market value assumptions[5]

Development Cost and Market Value (Per Square Foot), by Use		
	Development Cost	Market Value
Residential	$300.00	$500.00
Office	$300.00	$425.00
Retail	$275.00	$400.00
Industrial	$100.00	$150.00
Hotel	$300.00	$425.00

Table 4 shows assessed values are shown at two levels—development cost and market value. Assessment of real property is based on development cost during the first 3-year tax assessment cycle and at market value thereafter. For this reason, over time the assessments (on a per square foot basis) are likely to be much closer to the market value assessments. In the remainder of this analysis, it is assumed that all development is assessed at market value.

The following assumptions were used in calculating the assessment and revenue implications of build out:

- All assessments in this analysis are assumed to be at market value.
- All non-residential uses develop evenly (i.e. 1/25th of each use develops in Years 6 through 30).
- The weighted average market value of all non-residential uses is $401.38.
- All numbers hereafter are expressed in 2008$, and there is no inflation of costs or values assumed.

[5] The development cost and market value assumptions are based upon reasonable expectations of the market for new development under the White Flint plan. In general these figures are above the values of existing space within the metro area. New development will be of a high quality, will support an ample public benefits package, and will place White Flint among the premier locations in the region. Even still, some of these assumptions are well below the assumptions put forth by the Developer's Collaborative; for example, the Developer's Collaborative assumes retail market values of $600 per square foot, which is 50% above Staff's assumed market value.

Table 5: New residential assessments

Assessed Value of New Residential Development			
Year	Pipeline	Net New	Total
0	$0	$0	$0
1	$266,400,000	$0	$266,400,000
2	$532,800,000	$0	$532,800,000
3	$799,200,000	$0	$799,200,000
4	$1,065,600,000	$0	$1,065,600,000
5	$1,332,000,000	$0	$1,332,000,000
6	$1,332,000,000	$235,200,000	$1,567,200,000
7	$1,332,000,000	$470,400,000	$1,802,400,000
8	$1,332,000,000	$705,600,000	$2,037,600,000
9	$1,332,000,000	$940,800,000	$2,272,800,000
10	$1,332,000,000	$1,176,000,000	$2,508,000,000
11	$1,332,000,000	$1,411,200,000	$2,743,200,000
12	$1,332,000,000	$1,646,400,000	$2,978,400,000
13	$1,332,000,000	$1,881,600,000	$3,213,600,000
14	$1,332,000,000	$2,116,800,000	$3,448,800,000
15	$1,332,000,000	$2,352,000,000	$3,684,000,000
16	$1,332,000,000	$2,587,200,000	$3,919,200,000
17	$1,332,000,000	$2,822,400,000	$4,154,400,000
18	$1,332,000,000	$3,057,600,000	$4,389,600,000
19	$1,332,000,000	$3,292,800,000	$4,624,800,000
20	$1,332,000,000	$3,528,000,000	$4,860,000,000
21	$1,332,000,000	$3,763,200,000	$5,095,200,000
22	$1,332,000,000	$3,998,400,000	$5,330,400,000
23	$1,332,000,000	$4,233,600,000	$5,565,600,000
24	$1,332,000,000	$4,468,800,000	$5,800,800,000
25	$1,332,000,000	$4,704,000,000	$6,036,000,000
26	$1,332,000,000	$4,939,200,000	$6,271,200,000
27	$1,332,000,000	$5,174,400,000	$6,506,400,000
28	$1,332,000,000	$5,409,600,000	$6,741,600,000
29	$1,332,000,000	$5,644,800,000	$6,976,800,000
30	$1,332,000,000	$5,880,000,000	$7,212,000,000

At build-out, assessments of new residential development will be roughly $7.2 billion (in 2008$). This figure represents only assessments of new residential improvements, and does not include any increase in the assessed value of residential land or of existing residential improvements.[6]

[6] While the value of residential land and existing residential units may both increase over the build-out horizon, that increase is not a part of this analysis.

Table 6: New non-residential assessments

Assessed Value of Non-Residential Space				
Year	Pipeline	Net New	Replacement New	Total
0	$0	$0	$0	$0
1	$143,694,739	$0	$23,170,024	$166,864,763
2	$287,389,477	$0	$46,340,049	$333,729,526
3	$431,084,216	$0	$69,510,073	$500,594,289
4	$574,778,955	$0	$92,680,098	$667,459,053
5	$718,473,693	$0	$115,850,122	$834,323,816
6	$662,366,979	$91,354,532	$139,020,147	$892,741,658
7	$662,366,979	$182,709,064	$162,190,171	$1,007,266,215
8	$662,366,979	$274,063,597	$185,360,196	$1,121,790,771
9	$662,366,979	$365,418,129	$208,530,220	$1,236,315,328
10	$662,366,979	$456,772,661	$231,700,245	$1,350,839,885
11	$662,366,979	$548,127,193	$254,870,269	$1,465,364,441
12	$662,366,979	$639,481,725	$278,040,294	$1,579,888,998
13	$662,366,979	$730,836,257	$301,210,318	$1,694,413,555
14	$662,366,979	$822,190,790	$324,380,342	$1,808,938,111
15	$662,366,979	$913,545,322	$347,550,367	$1,923,462,668
16	$662,366,979	$1,004,899,854	$370,720,391	$2,037,987,225
17	$662,366,979	$1,096,254,386	$393,890,416	$2,152,511,781
18	$662,366,979	$1,187,608,918	$417,060,440	$2,267,036,338
19	$662,366,979	$1,278,963,451	$440,230,465	$2,381,560,895
20	$662,366,979	$1,370,317,983	$463,400,489	$2,496,085,451
21	$662,366,979	$1,461,672,515	$486,570,514	$2,610,610,008
22	$662,366,979	$1,553,027,047	$509,740,538	$2,725,134,565
23	$662,366,979	$1,644,381,579	$532,910,563	$2,839,659,121
24	$662,366,979	$1,735,736,112	$556,080,587	$2,954,183,678
25	$662,366,979	$1,827,090,644	$579,250,612	$3,068,708,234
26	$662,366,979	$1,918,445,176	$602,420,636	$3,183,232,791
27	$662,366,979	$2,009,799,708	$625,590,660	$3,297,757,348
28	$662,366,979	$2,101,154,240	$648,760,685	$3,412,281,904
29	$662,366,979	$2,192,508,772	$671,930,709	$3,526,806,461
30	$662,366,979	$2,283,863,305	$695,100,734	$3,641,331,018

Table 6 shows values of non-residential development. The table includes pipeline development, net new development, and increases in value based on redevelopment of existing space into higher value new space. Together these tables indicate that there will be additional residential value of $7.2 billion at build-out, and total new commercial value is of $3.6 billion. At build-out, the plan will generate roughly $10.8 billion (2008$) in new assessed improvement value.

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2.3 REVENUE IMPLICATIONS OF BUILD-OUT

Staff applied the FY09 overall countywide property tax rate of $0.978 per $100 of assessed value, and the FY09 General Fund tax rate of $0.74 per $100 of assessed value.

Table 7: Overall property tax revenue from new residential

Net New Overall Property Tax Revenue From Residential			
Year	Pipeline	Net New	Total
0	$0	$0	$0
1	$2,605,392	$0	$2,605,392
2	$5,210,784	$0	$5,210,784
3	$7,816,176	$0	$7,816,176
4	$10,421,568	$0	$10,421,568
5	$13,026,960	$0	$13,026,960
6	$13,026,960	$2,300,256	$15,327,216
7	$13,026,960	$4,600,512	$17,627,472
8	$13,026,960	$6,900,768	$19,927,728
9	$13,026,960	$9,201,024	$22,227,984
10	$13,026,960	$11,501,280	$24,528,240
11	$13,026,960	$13,801,536	$26,828,496
12	$13,026,960	$16,101,792	$29,128,752
13	$13,026,960	$18,402,048	$31,429,008
14	$13,026,960	$20,702,304	$33,729,264
15	$13,026,960	$23,002,560	$36,029,520
16	$13,026,960	$25,302,816	$38,329,776
17	$13,026,960	$27,603,072	$40,630,032
18	$13,026,960	$29,903,328	$42,930,288
19	$13,026,960	$32,203,584	$45,230,544
20	$13,026,960	$34,503,840	$47,530,800
21	$13,026,960	$36,804,096	$49,831,056
22	$13,026,960	$39,104,352	$52,131,312
23	$13,026,960	$41,404,608	$54,431,568
24	$13,026,960	$43,704,864	$56,731,824
25	$13,026,960	$46,005,120	$59,032,080
26	$13,026,960	$48,305,376	$61,332,336
27	$13,026,960	$50,605,632	$63,632,592
28	$13,026,960	$52,905,888	$65,932,848
29	$13,026,960	$55,206,144	$68,233,104
30	$13,026,960	$57,506,400	$70,533,360
Total			*$1,112,338,080*

Table 8: Overall property tax revenues from new commercial development

Net New Overall Property Tax Revenue From Non-Residential					
Year	Existing	Pipeline	Net New	Replacement New	Total
0	$14,792,250[7]	$0	$0	$0	$0
1	$14,299,175	$1,405,335	$0	$226,603	$1,631,937
2	$13,806,100	$2,810,669	$0	$453,206	$3,263,875
3	$13,313,025	$4,216,004	$0	$679,809	$4,895,812
4	$12,819,950	$5,621,338	$0	$906,411	$6,527,750
5	$12,326,875	$7,026,673	$0	$1,133,014	$8,159,687
6	$11,833,800	$6,477,949	$893,447	$1,359,617	$8,731,013
7	$11,340,725	$6,477,949	$1,786,895	$1,586,220	$9,851,064
8	$10,847,650	$6,477,949	$2,680,342	$1,812,823	$10,971,114
9	$10,354,575	$6,477,949	$3,573,789	$2,039,426	$12,091,164
10	$9,861,500	$6,477,949	$4,467,237	$2,266,028	$13,211,214
11	$9,368,425	$6,477,949	$5,360,684	$2,492,631	$14,331,264
12	$8,875,350	$6,477,949	$6,254,131	$2,719,234	$15,451,314
13	$8,382,275	$6,477,949	$7,147,579	$2,945,837	$16,571,365
14	$7,889,200	$6,477,949	$8,041,026	$3,172,440	$17,691,415
15	$7,396,125	$6,477,949	$8,934,473	$3,399,043	$18,811,465
16	$6,903,050	$6,477,949	$9,827,921	$3,625,645	$19,931,515
17	$6,409,975	$6,477,949	$10,721,368	$3,852,248	$21,051,565
18	$5,916,900	$6,477,949	$11,614,815	$4,078,851	$22,171,615
19	$5,423,825	$6,477,949	$12,508,263	$4,305,454	$23,291,666
20	$4,930,750	$6,477,949	$13,401,710	$4,532,057	$24,411,716
21	$4,437,675	$6,477,949	$14,295,157	$4,758,660	$25,531,766
22	$3,944,600	$6,477,949	$15,188,605	$4,985,262	$26,651,816
23	$3,451,525	$6,477,949	$16,082,052	$5,211,865	$27,771,866
24	$2,958,450	$6,477,949	$16,975,499	$5,438,468	$28,891,916
25	$2,465,375	$6,477,949	$17,868,946	$5,665,071	$30,011,967
26	$1,972,300	$6,477,949	$18,762,394	$5,891,674	$31,132,017
27	$1,479,225	$6,477,949	$19,655,841	$6,118,277	$32,252,067
28	$986,150	$6,477,949	$20,549,288	$6,344,879	$33,372,117
29	$493,075	$6,477,949	$21,442,736	$6,571,482	$34,492,167
30	$0	$6,477,949	$22,336,183	$6,798,085	$35,612,217
Total					*$578,769,445*

[7] Existing assessed value in this case is derived by multiplying the estimated total square feet of non-residential in the Sector Plan (5,500,000) by $275 per square foot. The $275 figure is based on a review of the assessment value of improvements for most non-residential parcel file data for the Sector Plan area. This method was used in order to smooth out data discrepancies pertaining to both the total number of commercial square feet and the total value of commercial improvements.

Taken together, these numbers indicate roughly $1.7 billion (2008$) over 30 years in overall property taxes from the assessment of new improvements.[8]

Of course, overall property tax revenue includes funds designated for specific purposes. Only a portion of overall revenues are available to pay for infrastructure. The portion that is available is the portion of overall revenues that go to the General Fund. The revenues to the General Fund represent roughly ¾ of the overall property tax revenues.

[8] This is not the same as incremental revenues, which will be addressed later. These figures are improvements only and do not include land assessments, which are assumed to remain constant.

Table 9: General Fund property tax revenues, residential development

Net New General Fund Property Tax Revenue From Residential			
Year	Pipeline	Net New	Total
0	$0	$0	$0
1	$1,971,360	$0	$1,971,360
2	$3,942,720	$0	$3,942,720
3	$5,914,080	$0	$5,914,080
4	$7,885,440	$0	$7,885,440
5	$9,856,800	$0	$9,856,800
6	$9,856,800	$1,740,480	$11,597,280
7	$9,856,800	$3,480,960	$13,337,760
8	$9,856,800	$5,221,440	$15,078,240
9	$9,856,800	$6,961,920	$16,818,720
10	$9,856,800	$8,702,400	$18,559,200
11	$9,856,800	$10,442,880	$20,299,680
12	$9,856,800	$12,183,360	$22,040,160
13	$9,856,800	$13,923,840	$23,780,640
14	$9,856,800	$15,664,320	$25,521,120
15	$9,856,800	$17,404,800	$27,261,600
16	$9,856,800	$19,145,280	$29,002,080
17	$9,856,800	$20,885,760	$30,742,560
18	$9,856,800	$22,626,240	$32,483,040
19	$9,856,800	$24,366,720	$34,223,520
20	$9,856,800	$26,107,200	$35,964,000
21	$9,856,800	$27,847,680	$37,704,480
22	$9,856,800	$29,588,160	$39,444,960
23	$9,856,800	$31,328,640	$41,185,440
24	$9,856,800	$33,069,120	$42,925,920
25	$9,856,800	$34,809,600	$44,666,400
26	$9,856,800	$36,550,080	$46,406,880
27	$9,856,800	$38,290,560	$48,147,360
28	$9,856,800	$40,031,040	$49,887,840
29	$9,856,800	$41,771,520	$51,628,320
30	$9,856,800	$43,512,000	$53,368,800
Total			*$841,646,400*

New residential development will generate roughly $840 million (2008$) in General Fund revenues over the 30 year build-out horizon.

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Table 10: General Fund property tax revenues, non-residential development

Net New General Fund Property Tax Revenue From Non-Residential					
Year	Existing	Pipeline	Net New	Replacement New	Total
0	$ 11,192,500	$ -	$ -	$ -	$ -
1	$ 10,819,417	$ 1,063,341	$ -	$ 171,458	$ 1,234,799
2	$ 10,446,333	$ 2,126,682	$ -	$ 342,916	$ 2,469,598
3	$ 10,073,250	$ 3,190,023	$ -	$ 514,375	$ 3,704,398
4	$ 9,700,167	$ 4,253,364	$ -	$ 685,833	$ 4,939,197
5	$ 9,327,083	$ 5,316,705	$ -	$ 857,291	$ 6,173,996
6	$ 8,954,000	$ 4,901,516	$ 676,024	$ 1,028,749	$ 6,606,288
7	$ 8,580,917	$ 4,901,516	$ 1,352,047	$ 1,200,207	$ 7,453,770
8	$ 8,207,833	$ 4,901,516	$ 2,028,071	$ 1,371,665	$ 8,301,252
9	$ 7,834,750	$ 4,901,516	$ 2,704,094	$ 1,543,124	$ 9,148,733
10	$ 7,461,667	$ 4,901,516	$ 3,380,118	$ 1,714,582	$ 9,996,215
11	$ 7,088,583	$ 4,901,516	$ 4,056,141	$ 1,886,040	$ 10,843,697
12	$ 6,715,500	$ 4,901,516	$ 4,732,165	$ 2,057,498	$ 11,691,179
13	$ 6,342,417	$ 4,901,516	$ 5,408,188	$ 2,228,956	$ 12,538,660
14	$ 5,969,333	$ 4,901,516	$ 6,084,212	$ 2,400,415	$ 13,386,142
15	$ 5,596,250	$ 4,901,516	$ 6,760,235	$ 2,571,873	$ 14,233,624
16	$ 5,223,167	$ 4,901,516	$ 7,436,259	$ 2,743,331	$ 15,081,105
17	$ 4,850,083	$ 4,901,516	$ 8,112,282	$ 2,914,789	$ 15,928,587
18	$ 4,477,000	$ 4,901,516	$ 8,788,306	$ 3,086,247	$ 16,776,069
19	$ 4,103,917	$ 4,901,516	$ 9,464,330	$ 3,257,705	$ 17,623,551
20	$ 3,730,833	$ 4,901,516	$ 10,140,353	$ 3,429,164	$ 18,471,032
21	$ 3,357,750	$ 4,901,516	$ 10,816,377	$ 3,600,622	$ 19,318,514
22	$ 2,984,667	$ 4,901,516	$ 11,492,400	$ 3,772,080	$ 20,165,996
23	$ 2,611,583	$ 4,901,516	$ 12,168,424	$ 3,943,538	$ 21,013,477
24	$ 2,238,500	$ 4,901,516	$ 12,844,447	$ 4,114,996	$ 21,860,959
25	$ 1,865,417	$ 4,901,516	$ 13,520,471	$ 4,286,455	$ 22,708,441
26	$ 1,492,333	$ 4,901,516	$ 14,196,494	$ 4,457,913	$ 23,555,923
27	$ 1,119,250	$ 4,901,516	$ 14,872,518	$ 4,629,371	$ 24,403,404
28	$ 746,167	$ 4,901,516	$ 15,548,541	$ 4,800,829	$ 25,250,886
29	$ 373,083	$ 4,901,516	$ 16,224,565	$ 4,972,287	$ 26,098,368
30	$ -	$ 4,901,516	$ 16,900,588	$ 5,143,745	$ 26,945,850
Total					*$437,923,711*

Non-residential development could generate roughly $440 million (2008$) in General Fund revenue. Total General Fund revenues from all residential and non-residential improvements would be roughly $1.3 billion over the 30-year build-out horizon.

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2.4 ANALYSIS OF INCREMENTAL REVENUES

In determining the incremental revenues generated by the new development, a critical step is making a determination of baseline property tax revenues. Staff calculated the tax increment on assessed improvements only, and assumed that land values will remain at current levels.[9]

In estimating total current revenues, Staff made the following assumptions in an effort to in order to address inconsistencies in the parcel file data:

- Based on a review of parcel file data of existing commercial properties within the Sector Plan, an average assessed value of $275 per improved square foot was assumed for all existing commercial development
- Based on a review of existing parcel (condo) file data, an average assessed value of $235 per improved square foot was applied to existing residential development
- It was assumed that there are 5,500,000 square feet of existing non-residential uses
- It was assumed that there are 2,259 residential units at an average of 1,200 square feet per unit
- It was assumed that all square feet of residential and non-residential uses are taxable

Table 11: Estimated existing property tax revenues, improvements, by use

	Improvements-Overall Prop Tax Revenue	Improvements-General Fund Prop Tax Revenues
Commercial Existing Assessment	$ 14,792,250	$ 11,192,500
Residential Existing Assessment	$ 6,230,232	$ 4,714,081
Total Existing Assessment	*$ 21,022,482*	*$ 15,906,581*

The total General Fund revenue from existing improvements ("baseline") is approximately $16 million per annum. The current assessments are predominantly commercial, reflecting the existing land use patterns within the Sector Plan boundary.

The tables that follow illustrate the General Fund portion of the incremental ad valorem property taxes. In each year, the incremental property taxes are the taxes above the baseline property taxes. Looking at incremental revenues is different than looking at the revenues generated by new development because incremental revenues include the difference between the revenue generated by each square foot of existing commercial at its current assessed value and its assessed value after redevelopment.

[9] For purposes of this analysis, Staff is not addressing the question of whether the assessed value of land will increase following the adoption of the Sector Plan.

Table 12: Baseline and incremental revenues

Incremental General Fund Revenues					
Yr	GF Revenue All Existing Assessments	GF Revenue-All New Assessments	GF Revenue-All New & Existing	Annual Incremental GF Revenues	Cumulative Incremental GF Revenues
0	**$15,906,581**				
1	$15,533,498	$3,206,159	$18,739,657	$2,833,076	$2,833,076
2	$15,160,415	$6,412,318	$21,572,733	$5,666,152	$8,499,228
3	$14,787,331	$9,618,478	$24,405,809	$8,499,228	$16,998,455
4	$14,414,248	$12,824,637	$27,238,885	$11,332,304	$28,330,759
5	$14,041,165	$16,030,796	$30,071,961	$14,165,380	$42,496,139
6	$13,668,081	$18,203,568	$31,871,649	$15,965,068	$58,461,207
7	$13,294,998	$20,791,530	$34,086,528	$18,179,947	$76,641,154
8	$12,921,915	$23,379,492	$36,301,406	$20,394,825	$97,035,979
9	$12,548,831	$25,967,453	$38,516,285	$22,609,703	$119,645,682
10	$12,175,748	$28,555,415	$40,731,163	$24,824,582	$144,470,264
11	$11,802,665	$31,143,377	$42,946,041	$27,039,460	$171,509,724
12	$11,429,581	$33,731,339	$45,160,920	$29,254,339	$200,764,063
13	$11,056,498	$36,319,300	$47,375,798	$31,469,217	$232,233,280
14	$10,683,415	$38,907,262	$49,590,677	$33,684,095	$265,917,375
15	$10,310,331	$41,495,224	$51,805,555	$35,898,974	$301,816,349
16	$9,937,248	$44,083,185	$54,020,433	$38,113,852	$339,930,201
17	$9,564,165	$46,671,147	$56,235,312	$40,328,731	$380,258,931
18	$9,191,081	$49,259,109	$58,450,190	$42,543,609	$422,802,540
19	$8,817,998	$51,847,071	$60,665,068	$44,758,487	$467,561,028
20	$8,444,915	$54,435,032	$62,879,947	$46,973,366	$514,534,393
21	$8,071,831	$57,022,994	$65,094,825	$49,188,244	$563,722,637
22	$7,698,748	$59,610,956	$67,309,704	$51,403,122	$615,125,760
23	$7,325,665	$62,198,917	$69,524,582	$53,618,001	$668,743,761
24	$6,952,581	$64,786,879	$71,739,460	$55,832,879	$724,576,640
25	$6,579,498	$67,374,841	$73,954,339	$58,047,758	$782,624,397
26	$6,206,415	$69,962,803	$76,169,217	$60,262,636	$842,887,033
27	$5,833,331	$72,550,764	$78,384,096	$62,477,514	$905,364,548
28	$5,460,248	$75,138,726	$80,598,974	$64,692,393	$970,056,941
29	$5,087,165	$77,726,688	$82,813,852	$66,907,271	$1,036,964,212
30	$4,714,081	$80,314,650	$85,028,731	$69,122,150	$1,106,086,361

The annual increment above baseline revenues would rise to $69 million. Over the thirty year build-out horizon, the cumulative incremental revenues could rise to $1.1 billion, i.e. the total General Fund revenues over thirty years could be up to $1.1 billion above the cumulative General Fund revenues over that same time period if current revenues remained unchanged.

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3.0 MASTER PLAN TRANSPORTATION INFRASTRUCTURE COSTS

Staff currently estimates total master planned transportation capital costs of $319,050,000. Some of that money is associated with projects for which funds are already committed or proposed (e.g. State costs associated with the Montrose Parkway interchange, and local funds associated with Chapman and Citadel Avenues).

For purposes of this analysis, it was assumed that the financing mechanism would finance all of the costs categorized as "district" costs (see Table 1, below, and Appendix A). The $171,250,000 in "district" infrastructure projects would be financed by a combination of public and private revenues.

Table 13: Summary of transportation infrastructure costs (2008$)

Transportation Infrastructure Costs, by stage					
	State	Local	Private	District	TOTAL
Total Transportation Network Elements					
Stage One	$47,200,000	$20,100,000	$7,500,000	$54,000,000	$128,800,000
Stage Two	$20,000,000	$0	$43,750,000	$35,750,000	$99,500,000
Stage Three	$0	$0	$9,250,000	$81,500,000	$90,750,000
TOTAL	$67,200,000	$20,100,000	$60,500,000	**$171,250,000**	$319,050,000

In later discussions of the financing mechanism, costs will come to include the cost of borrowing. It is assumed for purposes of this analysis that borrowing will occur only as necessary, and that the infrastructure bonds will be issued at 5% over 20 years.

4.0 "DISTRICT" FINANCING MECHANISM

The "District" financing mechanism receives funding from multiple sources. Together these sources would cover the cost of all master-planned infrastructure identified in the Sector Plan which is not assumed to be a pure "state" or "local" cost. Those sources are:

1) Residential transportation impact taxes (or equivalent)
2) 10% ad valorem special assessment on new and existing commercial uses (including both improvements and land)
3) Public sector gap financing from incremental revenues

The three funding sources would work together in the following manner:

- *Residential impact taxes* accumulate during each stage of development and are then applied to reduce necessary borrowing in the subsequent bond issuance. It is assumed that residential impact taxes from pipeline development will not be available to supplement the revenues. It is assumed that the impact taxes are $2420 per dwelling unit (i.e. that no developments opt to use the Alternative Review Procedure).
- *Special Assessment revenues* are collected beginning in Year 1. The Special Assessments in the years before the first bond is issued accumulate; subsequently, those revenues are used to reduce the required amount of the first bond. In the year the bond is issued is a bondable income stream, i.e. it is assumed that the Special Assessment in subsequent years will not be less than the Special Assessment in the year the bond is issued. Any excess Special Assessment accumulates and reduces the amount of the subsequent bond.
- *Public sector gap financing* is assumed to cover the remaining gap between the necessary bond payments and the bondable revenue stream from special assessments.

It is assumed that a set portion of the General Fund increment in each year could be directed towards the District. In each year, some of that amount would be applied to the current bond obligations, while the remainder would accumulate. Accumulated incremental revenues would then be applied to reduce the amount of borrowing necessary in the subsequent infrastructure phase.

Obviously, there are alternative ways to structure the incremental revenue portion of the financing mechanism. For example, the incremental revenue captured in each year could simply be the amount of incremental revenue necessary to close the financing gap in that year. This alternative is easy to model, but lacks predictability.

4.1 THE NEED FOR PUBLIC-PRIVATE FINANCING

Impact tax revenues alone fall far short of generating sufficient revenue to match the costs of infrastructure in the White Flint Sector Plan.

Table 14: Total Transportation Impact Tax Potential

Total Transportation Impact Tax Revenue Potential			
Use	D/U or Square Feet	Impact Tax Rate	Impact Tax Revenue
Dwelling Units	9,800	$2,420	$23,716,000
Office	2,831,746	$4.85	$13,733,966
Retail	1,887,830	$4.34	$8,193,184
Industrial	317,058	$2.43	$770,451
Other	0		$0
Hotel	653,366	$2.43	$1,587,680
Total			*$48,001,281*

At current rates, the total transportation impact tax potential would not generate sufficient revenue to pay for either Rockville Pike or for the various mobility projects that have been designated as District projects.

Alternatively, if all infrastructure designated as District infrastructure were to be financed using special assessments (no captured impact taxes or incremental tax revenues), the assessment rate would be significantly higher. Holding the other assumptions in this analysis constant, the rate would need to be set at 25%, i.e. a 25% increase in the property tax bill for all commercial properties within the Sector Plan.

4.2 A NOTE ON INFRASTRUCTURE STAGING

The infrastructure staging plan calls for three stages. For purposes of this analysis it is assumed that the first two infrastructure stages are eight years long, and that the third is nine years. With the five year period for pipeline development, this results in a build-out horizon of thirty years.

These assumptions do not line up perfectly with the plan, which assumes infrastructure phases set by metered development (i.e. the next stage of infrastructure is funded when a certain number of residential units and non-residential square feet have been developed). However, it does approximate the Sector Plan's staging mechanism while avoiding the complexity of partial years.

4.3 PIPELINE DEVELOPMENT AND ITS RELATIONSHIP TO THE FINANCING MECHANISM

The development pipeline for the White Flint Sector Plan Area includes substantial approved-but-not-completed development.

- *Residential pipeline: 2,220 dwelling units*
- *Non-residential pipeline: 1.79 million square feet*

It is assumed that all pipeline development occurs, and build-out of the pipeline is spread evenly over years one through five. It is not assumed that impact taxes from pipeline development can be applied to pay for "District" transportation projects. In every other way, however, pipeline development is treated the same way that new development is treated through each of the Sector Plan's defined "stages."

The 10% special assessment on commercial uses applies to all existing and new commercial, and thus also applies to pipeline development. Special assessments on pipeline development accumulate in years the first five years and are then applied to reduce the amount of borrowing necessary to pay for Stage One infrastructure.

As with later development and redevelopment, a portion of the General Fund increment generated by pipeline development is captured and accumulates to reduce necessary borrowing for Stage One infrastructure bonds.

4.4 FINANCING MECHANISM: STAGE ONE INFRASTRUCTURE BOND

The first bond is issued on the basis of the Year 5 special assessment and tax increment and repayment would begin in Year 6. The bond has a repayment period of 20 years and an interest rate of 5%. The total "District" obligation under the Stage 1 master plan transportation infrastructure cost is $54,000,000.

When the accumulated tax increment (10%[10] of the increment from Years 1 through 5) and accumulated assessment (10% special assessment from Years 1 to 5) are applied, the amount to borrow is reduced. [11]

[10] 10% is the portion of the increment necessary to cover the financing gaps for all three stages of infrastructure, assuming that there is a point in time at which all three bonds will be in repayment.

[11] Of course, we could also apply any residential impact taxes that will be paid on pipeline projects to reduce the amount needed to borrow, but to do this would involve distinguishing between pipeline projects that have already gone to building permit and those that have not.

- $54,000,000 in "District" master planned transportation infrastructure
- Less the $11,427,169 accumulated special assessment on commercial uses[12],
- Less $4,249,614 from accumulated 10% of general fund tax increment
- Equals $38,323,218
- At 5% over 20 years equals $58,442,907 in principal and interest
- Equals level annual payment of $2,922,145

In Year 6, repayment begins with the first of 20 annual payments in the amount of $2,922,145. The security for those annual payments would be current levels of revenue (bondable streams of income). Put differently, it is assumed that beginning in Year 6 our income will never fall below Year 5 levels.

The Year 5 special assessment is $2,513,206, so that is the amount that is "bondable." That leaves the remainder to be paid for by the captured General Fund tax increment.

- $2,922,145 level annual payment
- Less $2,513,206 from special assessment
- Equals $408,939 gap to be filled by tax increment

The annual GF tax increment that year is $14,165,380. Only $408,939, or 2.89% of the total Year 5 annual increment, is needed to cover the Stage 1 bond payments.

[12] The 10% special assessment applies to all commercial uses. The special assessment is applied to commercial improvements and land. Based on a review of parcel file data, it is assumed that the total annual (overall) property tax revenue from commercial land is roughly $4.6 million, 10% of which comes to $464,550.

Table 15: Stage One financing mechanism

Year	Special Assessment Revenue	Accumulated Special Assessment	Annual Net GF Increment	Captured Net GF Increment	Accumulated Captured Net GF Increment	Infrastructure Cost	Infrastructure Cost Less Accumulated Special Assessment and Captured Increment	Stage 1 balance (w/ interest @ 5% over 20 years)	Portion of Stage 1 bond from special assessment	Portion of Stage 1 bond from captured increment	Remaining Balance Stage 1 Bonds
0	$1,943,775										
1	$2,057,661	$2,057,661	$2,833,076	$283,308	$283,308						
2	$2,171,547	$4,229,209	$5,666,152	$566,615	$849,923						
3	$2,285,434	$6,514,642	$8,499,228	$849,923	$1,699,846						
4	$2,399,320	$8,913,962	$11,332,304	$1,133,230	$2,833,076						
5	**$2,513,206**	**$11,427,169**	$14,165,380	$1,416,538	**$4,249,614**	$54,000,000	**$38,323,218**	**$58,442,907**			
6	$2,521,031		$15,965,068	$1,596,507					**$2,513,206**	$408,939	$55,520,761
7	$2,583,729		$18,179,947	$1,817,995					$2,513,206	$408,939	$52,598,616
8	$2,646,426		$20,394,825	$2,039,483					$2,513,206	$408,939	$49,676,471
9	$2,709,124		$22,609,703	$2,260,970					$2,513,206	$408,939	$46,754,325
10	$2,771,821		$24,824,582	$2,482,458					$2,513,206	$408,939	$43,832,180
11	$2,834,519		$27,039,460	$2,703,946					$2,513,206	$408,939	$40,910,035
12	$2,897,216		$29,254,339	$2,925,434					$2,513,206	$408,939	$37,987,889
13	$2,959,914		$31,469,217	$3,146,922					$2,513,206	$408,939	$35,065,744
14	$3,022,611		$33,684,095	$3,368,410					$2,513,206	$408,939	$32,143,599
15	$3,085,309		$35,898,974	$3,589,897					$2,513,206	$408,939	$29,221,453
16	$3,148,007		$38,113,852	$3,811,385					$2,513,206	$408,939	$26,299,308
17	$3,210,704		$40,328,731	$4,032,873					$2,513,206	$408,939	$23,377,163
18	$3,273,402		$42,543,609	$4,254,361					$2,513,206	$408,939	$20,455,017
19	$3,336,099		$44,758,487	$4,475,849					$2,513,206	$408,939	$17,532,872
20	$3,398,797		$46,973,366	$4,697,337					$2,513,206	$408,939	$14,610,727
21	$3,461,494		$49,188,244	$4,918,824					$2,513,206	$408,939	$11,688,581
22	$3,524,192		$51,403,122	$5,140,312					$2,513,206	$408,939	$8,766,436
23	$3,586,889		$53,618,001	$5,361,800					$2,513,206	$408,939	$5,844,291
24	$3,649,587		$55,832,879	$5,583,288					$2,513,206	$408,939	$2,922,145
25	$3,712,284		$58,047,758	$5,804,776					$2,513,206	$408,939	$0

4.5 FINANCING MECHANISM: STAGE TWO INFRASTRUCTURE BOND

Once the Stage 1 infrastructure bonds have been issued, any special assessment revenues in excess of the Year 5 revenues ($2,513,206) will accumulate and ultimately will be applied to reduce the necessary borrowing for Stage 2 infrastructure. Incremental General Fund revenues will also accumulate (difference between 10% of General Fund increment and the $408,939 required to close the Stage 1 financing gap). In addition, residential impact taxes paid by Stage 1 development will accumulate and be applied to reduce the borrowing required for Stage 2.

The total cost of the District's obligations for Stage 2 master plan transportation infrastructure is $35,750,000. This amount will be reduced by the amount of the accumulated Stage 1 impact taxes, as well as the accumulated 10% commercial special assessment and the accumulated 10% General Fund tax increment.

- $35,750,000 in total "District" master planned transportation infrastructure
- Less Stage 1 accumulated residential impact tax equivalency of $7,589,120[13]
- Less accumulated special assessment of $1,818,132
- Less accumulated 10% GF increment of $15,702,201
- Equals $10,640,547
- At 5% over 20 years is $16,226,835 in principal and interest
- Equals level annual payment of $811,342

In Year 14, repayment of the Stage 2 bond begins with the first of 20 annual payments in the amount of $811,342. The total Year 13 special assessment is $2,959,914. Of that amount, the first $2,513,206 is dedicated to paying off the Stage 1 bond. As such, the bondable special assessment revenue stream for Stage 2 is only $446,708. That leaves the remaining $364,634 to be filled by public sector gap financing.

- $811,342 in level payment
- Less $446,708 bondable from 10% special assessment on commercial
- Equals $364,634 gap to be filled by tax increment

The $364,634 for Stage 2 bonds is 2.11% of the Year 13 General Fund increment ($17,303,837). An additional portion of the captured 10% tax increment is applied to the continuing obligations on Stage 1 bonds, with the remainder accumulating to reduce Stage 3 borrowing.

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[13] Total impact tax revenue is calculated on the basis of units at a particular point in time, rather than based on the 3,000 units in the staging plan. This was done to eliminate the need to go build the model using months rather than just years. The staging plan described in the Sector Plan is modified for the purposes of this analysis. For example, Stage 1 in the staging plan ends when 3,000 dwelling units and 2.0 million square feet of non-residential uses have been built. For purposes of this analysis, Stage 2 begins in the first full year after the 3,000th unit is built.

Table 16: Stage Two financing mechanism

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Amount Available for Stage 2	Special Assessment Dedicated to Stage 2 Bonds	Excess Accumulated Special Assessment	Accumulated Impact Tax Revenue	Annual Net GF Increment	Captured Net GF Increment	Accumulated Captured Net GF Increment	Infrastructure Cost	Infrastructure Cost Less Accumulated Revenues	Portion of Stage 2 bond from special assessment	Portion of Stage 2 bond from captured increment	Remaining Balance Stage 2 Bonds @ 5% over 20 years
13	$2,959,914	$2,513,206	**$446,708**	$0	**$1,818,132**	**$7,589,120**			**$15,702,201**	$35,750,000	**$10,640,547**			**$16,226,835**
14	$3,022,611	$2,513,206		**$446,708**	$62,698		$33,684,095	$3,368,410				$446,708	$364,634	$15,415,493
15	$3,085,309	$2,513,206		$446,708	$125,395		$35,898,974	$3,589,897				$446,708	$364,634	$14,604,151
16	$3,148,007	$2,513,206		$446,708	$188,093		$38,113,852	$3,811,385				$446,708	$364,634	$13,792,810
17	$3,210,704	$2,513,206		$446,708	$250,790		$40,328,731	$4,032,873				$446,708	$364,634	$12,981,468
18	$3,273,402	$2,513,206		$446,708	$313,488		$42,543,609	$4,254,361				$446,708	$364,634	$12,170,126
19	$3,336,099	$2,513,206		$446,708	$376,185		$44,758,487	$4,475,849				$446,708	$364,634	$11,358,784
20	$3,398,797	$2,513,206		$446,708	$438,883		$46,973,366	$4,697,337				$446,708	$364,634	$10,547,443
21	$3,461,494	$2,513,206		$446,708	$501,580		$49,188,244	$4,918,824				$446,708	$364,634	$9,736,101
22	$3,524,192	$2,513,206		$446,708	$564,278		$51,403,122	$5,140,312				$446,708	$364,634	$8,924,759
23	$3,586,889	$2,513,206		$446,708	$626,975		$53,618,001	$5,361,800				$446,708	$364,634	$8,113,417
24	$3,649,587	$2,513,206		$446,708	$689,673		$55,832,879	$5,583,288				$446,708	$364,634	$7,302,076
25	$3,712,284	$2,513,206		$446,708	$752,370		$58,047,758	$5,804,776				$446,708	$364,634	$6,490,734
26	$3,774,982	$0		$446,708	$3,328,274		$60,262,636	$6,026,264				$446,708	$364,634	$5,679,392
27	$3,837,679	$0		$446,708	$3,390,971		$62,477,514	$6,247,751				$446,708	$364,634	$4,868,050
28	$3,900,377	$0		$446,708	$3,453,669		$64,692,393	$6,469,239				$446,708	$364,634	$4,056,709
29	$3,963,074	$0		$446,708	$3,516,366		$66,907,271	$6,690,727				$446,708	$364,634	$3,245,367
30	$4,025,772	$0		$446,708	$3,579,064		$69,122,150	$6,912,215				$446,708	$364,634	$2,434,025
31	$4,025,772	$0		$446,708	$3,579,064		$69,122,150	$6,912,215				$446,708	$364,634	$1,622,683
32	$4,025,772	$0		$446,708	$3,579,064		$69,122,150	$6,912,215				$446,708	$364,634	$811,342
33	$4,025,772	$0		$446,708	$3,579,064		$69,122,150	$6,912,215				$446,708	$364,634	$0

4.6 FINANCING MECHANISM: STAGE THREE INFRASTRUCTURE BOND

Once the Stage 2 infrastructure bonds have been issued, any special assessment revenues in excess of those necessary to cover the private portion of the Stage 1 and Stage 2 bonds will accumulate and ultimately will be applied to reduce the necessary borrowing for Stage 3 infrastructure. Incremental General Fund revenues will also accumulate (difference between 10% of General Fund increment and the continuing gap finance obligations for Stage 1 and Stage 2 infrastructure) to reduce necessary borrowing. Residential impact taxes paid by Stage 2 development will accumulate and be applied to reduce the borrowing required for Stage 3.

The total cost of the District's obligations for Stage 3 master plan transportation infrastructure is $81,500,000. This amount will be reduced by the amount of the accumulated Stage 2 impact taxes, as well as the accumulated 10% commercial special assessment and the accumulated 10% General Fund tax increment.

- $81,500,000 in total "District" master planned transportation infrastructure
- Less Stage 2 accumulated residential impact tax equivalency of $7,589,120
- Less accumulated special assessment of $2,257,111
- Less accumulated 10% GF increment of $29,877,423
- Equals $41,776,347
- At 5% over 20 years is $63,708,929 in principal and interest
- Equals level annual payment of $3,185,466

Starting in Year 22, repayment of the Stage 3 bond begins with the first of 20 annual payments in the amount of $3,185,466. The total Year 21 special assessment is $3,461,494. Of that amount, the first $2,513,206 is dedicated to paying off the Stage 1 bond, with $446,708 dedicated to paying off the Stage 2 bond. As such, the remaining bondable special assessment revenue stream for Stage 3 is only $501,580. That leaves a gap of $2,683,866 to be filled by public sector gap financing.

- $3,185,466 in level payment
- Less $501,580 bondable from 10% special assessment on commercial
- Equals $2,683,866 gap to be filled by tax increment

The public obligation of $2,683,866 for Stage 3 bonds is 7.70% of the Year 21 General Fund increment ($34,869,073). No excess increment accumulates in Stage 3. It is further assumed that excess special assessments in Stage 3 are applied to repay the public sector for the Stage 3 gap financing. It is assumed that Stage 3 impact taxes are no longer captured by the District, but instead accrue to the County.

Table 17: Stage Three financing mechanism

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Special Assessment Dedicated to Stage 2 Bonds	Amount Available for Stage 3	Excess Accumulated Special Assessment	Accumulated Impact Tax Revenue	Annual Net GF Increment	Captured Net GF Increment	Accumulated Captured Net GF Increment	Infrastructure Cost	Infrastructure Cost Less Accumulated Revenues	Portion of Stage 3 bond from special assessment	Portion of Stage 3 bond from captured increment	Remaining Balance Stage 3 Bonds @ 5% over 20 years
21	$3,461,494	$2,513,206	$446,708	**$501,580**	**$2,257,111**	**$7,589,120**			**$29,877,423**	$81,500,000	**$41,776,347**			**$63,708,929**
22	$3,524,192	$2,513,206	$446,708		$62,698		$51,403,122	$5,140,312				**$501,580**	$2,683,866	$60,523,482
23	$3,586,889	$2,513,206	$446,708		$180,267		$53,618,001	$5,361,800				$501,580	$2,683,866	$57,338,036
24	$3,649,587	$2,513,206	$446,708		$242,965		$55,832,879	$5,583,288				$501,580	$2,683,866	$54,152,590
25	$3,712,284	$2,513,206	$446,708		$305,662		$58,047,758	$5,804,776				$501,580	$2,683,866	$50,967,143
26	$3,774,982	$0	$446,708		$2,881,566		$60,262,636	$6,026,264				$501,580	$2,683,866	$47,781,697
27	$3,837,679	$0	$446,708		$2,944,264		$62,477,514	$6,247,751				$501,580	$2,683,866	$44,596,250
28	$3,900,377	$0	$446,708		$3,006,961		$64,692,393	$6,469,239				$501,580	$2,683,866	$41,410,804
29	$3,963,074	$0	$446,708		$3,069,659		$66,907,271	$6,690,727				$501,580	$2,683,866	$38,225,357
30	$4,025,772	$0	$446,708		$3,132,356		$69,122,150	$6,912,215				$501,580	$2,683,866	$35,039,911
31	$4,025,772	$0	$446,708		$3,132,356		$69,122,150	$6,912,215				$501,580	$2,683,866	$31,854,464
32	$4,025,772	$0	$446,708		$3,132,356		$69,122,150	$6,912,215				$501,580	$2,683,866	$28,669,018
33	$4,025,772	$0	$446,708		$3,132,356		$69,122,150	$6,912,215				$501,580	$2,683,866	$25,483,572
34	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$22,298,125
35	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$19,112,679
36	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$15,927,232
37	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$12,741,786
38	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$9,556,339
39	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$6,370,893
40	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$3,185,446
41	$4,025,772	$0	$0		$3,579,064		$69,122,150	$6,912,215				$501,580	$2,683,866	$0

Table 16 shows that Stage 3 bonds are largely financed by the public sector. In fact, the private sector would pay only $10,031,603 in Stage 3 compared to the public sector's $53,677,326. However, by continuing to assess the special assessment on commercial uses, much of the public sector's Stage 3 obligations (not including the accumulated excess tax increment) could be repaid.

Assuming, as this analysis does, that private development continues in Stage 3, at the end of the repayment period for the Stage 3 bonds, all of the public sector's Stage 3 bond payments would have been repaid through excess special assessments.

Even assuming (worst case scenario) that no new development occurs in Stage 3, excess accumulated revenues could repay the public sector for all but $8,794,918 of the gap financing paid during the life of the Stage 3 bond. This is the case because the full repayment of Stage 1 and Stage 2 bonds will occur, freeing up all remaining special assessment revenues to be applied to repay the public sector for Stage 3 gap financing.

Table 18: Stage Three repayment of gap financing

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Special Assessment Dedicated to Stage 2 Bonds	Amount Available for Stage 3	Excess Accumulated Special Assessment	Portion of Stage 3 bond from special assessment	Portion of Stage 3 bond from captured increment	Remaining Balance Stage 3 Bonds @ 5% over 20 years	Repayment from Excess Accumulated Special Assessment	Total Stage 3 Public Sector Obligation
21	$3,461,494	$2,513,206	$446,708	**$501,580**	$2,257,111			**$63,708,929**		**$53,677,326**
22	$3,524,192	$2,513,206	$446,708		$62,698	**$501,580**	$2,683,866	$60,523,482	-$62,698	$53,614,629
23	$3,586,889	$2,513,206	$446,708		$180,267	$501,580	$2,683,866	$57,338,036	-$180,267	$53,434,361
24	$3,649,587	$2,513,206	$446,708		$242,965	$501,580	$2,683,866	$54,152,590	-$242,965	$53,191,396
25	$3,712,284	$2,513,206	$446,708		$305,662	$501,580	$2,683,866	$50,967,143	-$305,662	$52,885,734
26	$3,774,982	$0	$446,708		$2,881,566	$501,580	$2,683,866	$47,781,697	-$2,881,566	$50,004,168
27	$3,837,679	$0	$446,708		$2,944,264	$501,580	$2,683,866	$44,596,250	-$2,944,264	$47,059,904
28	$3,900,377	$0	$446,708		$3,006,961	$501,580	$2,683,866	$41,410,804	-$3,006,961	$44,052,943
29	$3,963,074	$0	$446,708		$3,069,659	$501,580	$2,683,866	$38,225,357	-$3,069,659	$40,983,284
30	$4,025,772	$0	$446,708		$3,132,356	$501,580	$2,683,866	$35,039,911	-$3,132,356	$37,850,928
31	$4,025,772	$0	$446,708		$3,132,356	$501,580	$2,683,866	$31,854,464	-$3,132,356	$34,718,572
32	$4,025,772	$0	$446,708		$3,132,356	$501,580	$2,683,866	$28,669,018	-$3,132,356	$31,586,216
33	$4,025,772	$0	$446,708		$3,132,356	$501,580	$2,683,866	$25,483,572	-$3,132,356	$28,453,860
34	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$22,298,125	-$3,579,064	$24,874,796
35	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$19,112,679	-$3,579,064	$21,295,732
36	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$15,927,232	-$3,579,064	$17,716,668
37	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$12,741,786	-$3,579,064	$14,137,604
38	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$9,556,339	-$3,579,064	$10,558,540
39	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$6,370,893	-$3,579,064	$6,979,476
40	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$3,185,446	-$3,579,064	$3,400,412
41	$4,025,772	$0	$0		$3,579,064	$501,580	$2,683,866	$0	-$3,579,064	**-$178,652**

Table 19: Stage Three repayment of gap financing, special assessment revenues frozen

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Special Assessment Dedicated to Stage 2 Bonds	Amount Available for Stage 3	Excess Accumulated Special Assessment	Portion of Stage 3 bond from special assessment	Portion of Stage 3 bond from captured increment	Remaining Balance Stage 3 Bonds @ 5% over 20 years	Repayment from Excess Accumulated Special Assessment	Total Stage 3 Public Sector Obligation
21	$3,461,494	$2,513,206	$446,708	**$501,580**	$2,257,111			**$63,708,929**		**$53,677,326**
22	$3,461,494	$2,513,206	$446,708		$54,872	**$501,580**	$2,683,866	$60,523,482	-$54,872	$53,622,454
23	$3,461,494	$2,513,206	$446,708		$54,872	$501,580	$2,683,866	$57,338,036	-$54,872	$53,567,582
24	$3,461,494	$2,513,206	$446,708		$54,872	$501,580	$2,683,866	$54,152,590	-$54,872	$53,512,709
25	$3,461,494	$2,513,206	$446,708		$54,872	$501,580	$2,683,866	$50,967,143	-$54,872	$53,457,837
26	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$47,781,697	-$2,568,079	$50,889,758
27	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$44,596,250	-$2,568,079	$48,321,680
28	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$41,410,804	-$2,568,079	$45,753,601
29	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$38,225,357	-$2,568,079	$43,185,523
30	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$35,039,911	-$2,568,079	$40,617,444
31	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$31,854,464	-$2,568,079	$38,049,365
32	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$28,669,018	-$2,568,079	$35,481,287
33	$3,461,494	$0	$446,708		$2,568,079	$501,580	$2,683,866	$25,483,572	-$2,568,079	$32,913,208
34	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$22,298,125	-$3,014,786	$29,898,422
35	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$19,112,679	-$3,014,786	$26,883,636
36	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$15,927,232	-$3,014,786	$23,868,849
37	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$12,741,786	-$3,014,786	$20,854,063
38	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$9,556,339	-$3,014,786	$17,839,277
39	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$6,370,893	-$3,014,786	$14,824,490
40	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$3,185,446	-$3,014,786	$11,809,704
41	$3,461,494	$0	$0		$3,014,786	$501,580	$2,683,866	$0	-$3,014,786	**$8,794,918**

4.7 ASSESSING THE PUBLIC AND PRIVATE OBLIGATIONS UNDER THE PROPOSED FINANCING MECHANISM

The total costs of each stage are dependent upon the District's total infrastructure bill in the stage, and upon the availability of accumulated revenues to reduce the required borrowing.

Table 21: "District" infrastructure finance, by stage by source

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	**Total**
Impact Tax	$0	$7,589,120	$7,589,120	**$15,178,240**
Accumulated 10% Special Assessment	$11,427,169	$1,818,132	$2,257,111	
Special Assessment for Bond Payment	$50,264,124	$8,934,155	$10,031,603	
Accumulated Special Assessment Repayment Adjustment	$0	$0	$53,855,979	
Total Special Assessment	$61,691,292	$10,752,287	$66,144,692	**$138,588,271**
Accumulated 10% Tax Increment	$4,249,614	$15,702,201	$29,877,423	
Tax Increment for Bond Payment	$8,178,783	$7,292,680	$53,677,326	
Tax Increment Repayment Adjustment	$0	$0	-$53,855,979	
Total Tax Increment	$12,428,397	$22,994,880	$29,698,770	**$65,122,048**
Total	**$74,119,689**	**$41,336,287**	**$103,432,582**	**$218,888,559**

Including when interest and prepayment through accumulated revenues are both included, the total costs to the District are $218,888,559. The financing mechanism described in the Sector Plan and analyzed in this memorandum would place most of the burden of the cost of "District" infrastructure on the private sector (via special assessments).

Figure 1: Proportional breakdown of district financing, by source

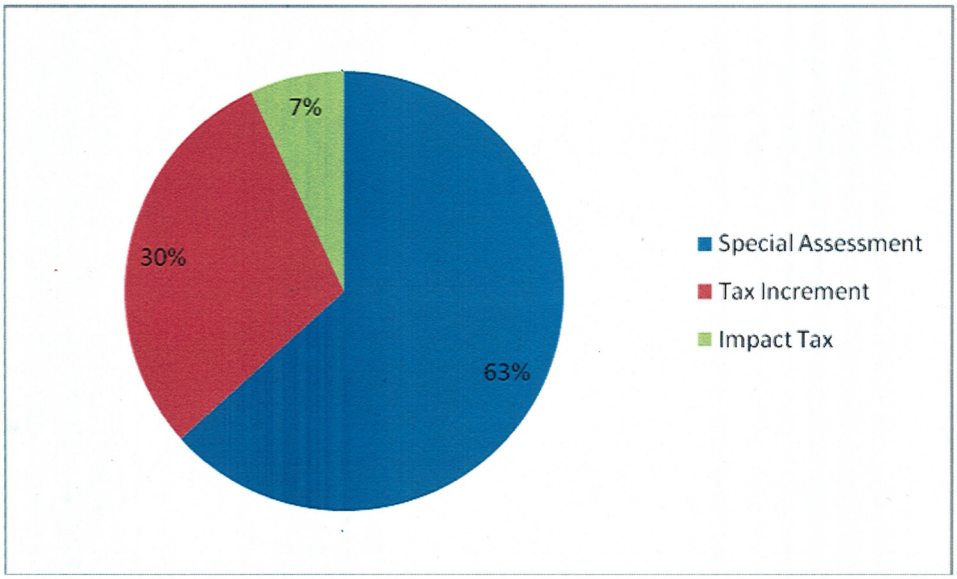
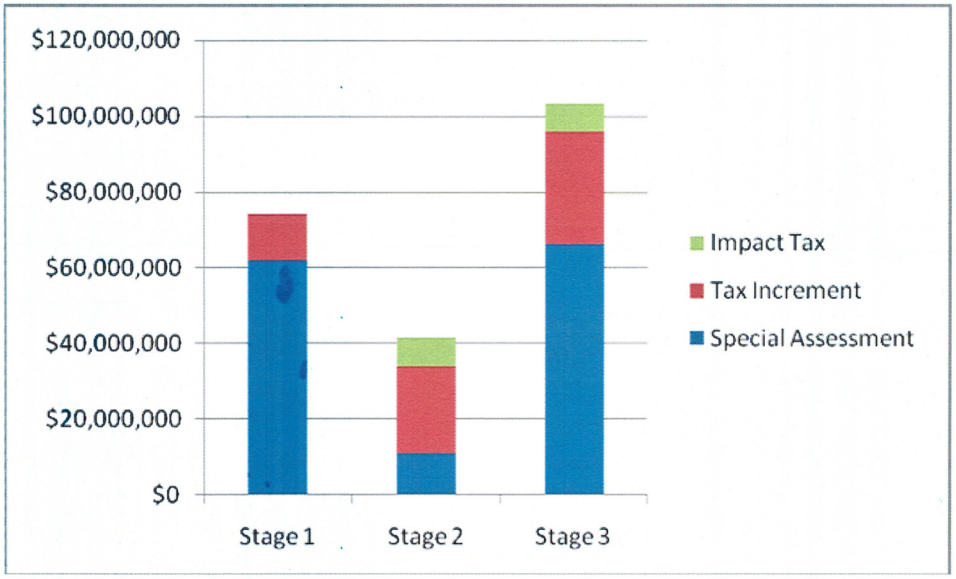


Figure 2: Financing by source and by stage



33

Public sector gap financing would play a relatively small role in the first stage of development, which is largely funded by the special assessments on existing and pipeline commercial development. In the second stage, the public sector could bear more than two-thirds of the total burden for "District" infrastructure. In the third stage, public sector gap financing would be critical; however, most of the public sector burden in the third stage could be repaid by excess "accumulated" special assessments generated in Stage 3 once the bonds for the first two stages have been retired.

The special assessment, including excess special assessment in Stage 3, covers 63% of the cost of "District" infrastructure, while captured tax increment covers only 30%. Captured residential impact taxes cover the remaining 7% of the District's obligations.

Overall, the total public sector burden for gap financing ($65,122,048) is roughly equal to the cost of the Rockville Pike improvements (without right-of-way acquisition costs), which is estimated to be roughly $66 million. In essence, the effect of the financing mechanism is to take the financing gap created by the cost of the Rockville Pike improvements and spread that cost over all three stages of infrastructure development.

5.0 CONCLUSION

The proposed financing mechanism—as described generally in the Sector Plan and in greater detail in this memorandum—successfully pays for all district infrastructure projects if 10% of the total incremental General Fund revenues are captured by the District. Roughly two-thirds of the total cost of District infrastructure is borne by the private sector, with the remainder paid for by public sector gap financing.

The financing mechanism has three sources of revenue, each of which has unique characteristics.

- *Special assessment revenues* are most important in the first and last stage. In the first stage, the special assessments on existing and pipeline development allow the mechanism to pay for new infrastructure that could accelerate additional private development. In the last stage, the special assessment revenues could serve either to cover much of the cost of infrastructure or to repay the public sector for its contributions to the third stage of infrastructure projects. Because the special assessment draws revenue from existing uses it is also the most stable and reliable of the three.

- *Captured General Fund tax increment* is critical to the success of Stages 2 and 3. The tax increment is more dependent upon new development than is the special assessment revenue.

- *Captured residential impact taxes* reduce the risk in Stage 2 and Stage 3. This revenue is important because residential impact taxes in Stages 1 and 2 must occur in order for the staging mechanism to advance. While impact taxes are by far the smallest of the three sources of revenue, they do play an important role in that they reduce the amount of necessary borrowing.

Other potential structures of the financing mechanism may effectively achieve the objectives of the Sector Plan. Of those alternatives, the ones most likely to succeed will bear substantial similarity to the financing mechanism described in this memorandum.

APPENDIX A: TRANSPORTATION COSTS (EXCERPT)

The White Flint Sector Plan proposes the establishment of the White Flint Redevelopment Implementation Authority, an innovative implementation program designed to accomplish two objectives:

- Ensure that the infrastructure required for the Plan is affordable and apportioned equitably among public and private stakeholders
- Manage infrastructure prioritization and delivery to avoid "lumpy" infrastructure delivery typical of the development review exaction process

Exhibit 7 summarizes the transportation infrastructure costs by Sector Plan stage and expected responsibility. The capital cost estimates reflect the following assumptions:

- State projects include the Montrose Parkway interchange and the extension of Montrose Parkway east to the CSX tracks (Phase II of the SHA project for Rockville Pike / Montrose Road interchange improvements). The $20M estimated cost for the latter improvement is symbolic as there are no proposals to construct the roadway up to, but not across, the CSX tracks.
- Local projects include the portions of Nebel Street Extended (north of Randolph Road), Chapman Avenue, and Citadel Avenue already in the County's implementation program.
- Private projects include those portions of the public street system described in Table 5 of the Public Hearing Draft Plan that are in control of individual property owners and would be required for internal site access and design (such as Mid Pike Plaza, North Bethesda Town Center, and White Flint Mall).
- District projects are those assumed to be the responsibility of the White Flint Redevelopment Implementation Authority, including the construction or reconstruction of:
    - Rockville Pike ($66M),
    - Metrorail Station north entrance ($25M)
    - MARC station and supporting access ($13M)
    - Circulator shuttles ($5M)
    - Local streets not required for site access and design ($62M)
- Right-of-way costs are not included in the cost estimates. New streets in the network are located where redevelopment is expected to occur so that, in a typical development process, right-of-way dedication would generally be expected, with density calculated from the gross tract area prior to dedication. The White Flint Redevelopment Implementation Authority will have two options for addressing right-of-way acquisition:
    - establish an infrastructure delivery process by which right-of-way is acquired from its members without fee simple acquisition at a cost to the public sector, or
    - revision of financing schema to include right-of-way acquisition costs.
- Roadway capital costs are based on the following unit costs:

- $50M per mile for Rockville Pike reconstruction based on cost estimates for similar portions of New York Avenue in Washington DC and US 1 in College Park, MD.
- $25M per mile for local roadway construction, based on the County's four-lane Nebel Street Extended project (CIP project 500401) at $26M per mile and two-lane Citadel Avenue (CIP project 500310) at $24M per mile

Transportation Infrastructure Costs, by mode and by stage, ($millions)					
	State	Local	Private	District	TOTAL
Public Transit Elements					
Stage One	$ -	$ -	$ -	$ 26.50	$ 26.50
Stage Two	$ -	$ -	$ -	$ 3.00	$ 3.00
Stage Three	$ -	$ -	$ -	$ 13.00	$ 13.00
TOTAL	$ -	$ -	$ -	$ 42.50	$ 42.50
Streets and Bikeways					
Stage One	$ 47.20	$ 20.10	$ 7.50	$ 27.50	$ 102.30
Stage Two	$ 20.00	$ -	$ 43.75	$ 32.75	$ 96.50
Stage Three	$ -	$ -	$ 9.25	$ 68.50	$ 77.75
TOTAL	$ 67.20	$ 20.10	$ 60.50	$ 128.75	$ 276.55
Total Transportation Network Elements					
Stage One	$ 47.20	$ 20.10	$ 7.50	$ 54.00	$ 128.80
Stage Two	$ 20.00	$ -	$ 43.75	$ 35.75	$ 99.50
Stage Three	$ -	$ -	$ 9.25	$ 81.50	$ 90.75
TOTAL	$ 67.20	$ 20.10	$ 60.50	$ 171.25	$ 319.05

APPENDIX B: ANALYSIS OF SELECTED ALTERNATIVES

Alternative 1: No impact taxes captured by District

In this alternative, transportation impact taxes generated by new development within the Sector Plan are not captured and applied to District infrastructure projects. This revenue would instead be available to fund public sector improvements under the rules established in the most recent Growth Policy. However, by removing these revenues from the District, the financing gap for the District is increased. That would result in higher public sector gap financing obligations, increased costs to the private sector, or delays moving through the staging plan.

Table B1: Infrastructure financing, by stage and by source, for Alternative 1

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	**Total**
Impact Tax	$0	$0	$0	**$0**
Accumulated 10% Special Assessment	$11,427,169	$1,818,132	$2,257,111	
Special Assessment for Bond Payment	$50,264,124	$8,934,155	$10,031,603	
Accumulated Special Assessment Repayment Adjustment	$0	$0	$53,855,979	
Total Special Assessment	$61,691,292	$10,752,287	$66,144,692	**$138,588,271**
Accumulated 10% Tax Increment	$4,249,614	$15,702,201	$29,877,423	
Tax Increment for Bond Payment	$8,178,783	$18,866,088	$65,250,734	
Tax Increment Repayment Adjustment	$0	$0	-$53,855,979	
Total Tax Increment	$12,428,397	$34,568,288	$41,272,178	**$88,268,864**
Total	**$74,119,689**	**$45,320,575**	**$107,416,870**	**$226,857,135**

Table B2: Stage 1 comparison of proposed financing mechanism to Alternative 1

	Stage 1	
Revenue Source	Proposed	Alternative 1
Impact Tax Revenue	$0	$0
Special Tax/Assessment Revenue	$61,691,292	$61,691,292
Tax Increment Applied to Cover Gap	$12,428,397	$12,428,397
Total	$74,119,689	$74,119,689

Table B3: Stage 2 comparison of proposed financing mechanism to Alternative 1

	Stage 2	
Revenue Source	Proposed	Alternative 1
Impact Tax Revenue	$7,589,120	$0
Special Tax/Assessment Revenue	$10,752,287	$10,752,287
Tax Increment Applied to Cover Gap	$22,994,880	$34,568,288
Total	$41,336,287	$45,320,575

In this instance, the District loses revenue ($7,589,120) from the residential impact tax equivalent. That money is not necessarily gained by the public sector, due to crediting allowed under the current system. The lost revenue translates into an increase in the financing gap from $23 million to $34.6 million. If that gap is to be filled by the public sector, it could end up being less costly to allow the District to capture the impact tax revenues (though all figures here are in 2008$).

Table B4: Stage 3 comparison of proposed financing mechanism to Alternative 1

	Stage 3	
Revenue Source	Proposed	Alternative 1
Impact Tax Revenue	$7,589,120	$0
Special Tax/Assessment Revenue	$66,144,692	$66,144,692
Tax Increment Applied to Cover Gap	$29,698,770	$41,272,178
Total	$103,432,582	$107,416,870

Again, the loss of revenue from the residential impact tax equivalent payment increases the financing gap, and thus potentially increases the cost to the public sector.

Table B5: Total (all stages) comparison of proposed financing mechanism to Alternative 1

	Total	
Revenue Source	Proposed	Alternative 1
Impact Tax Revenue	$15,178,240	$0
Special Tax/Assessment Revenue	$138,588,271	$138,588,271
Tax Increment Applied to Cover Gap	$65,122,048	$88,268,864
Total	$218,888,559	$226,857,135

Alternative 1 results in an increase in the size of the financing gap from $65.1 million to $88.3 million, as well as an increase in the overall cost of District infrastructure.

Additional variations on this alternative include replacing the District's revenue from residential impact taxes with other private money, either through the exaction process or through a higher special tax/assessment on commercial uses.

Alternative 2: Reduce special tax/assessment from 10% to 5%

Alternative 2a: Difference made up by capturing commercial transportation impact taxes

In this alternative, it is assumed that all new and existing commercial uses pay a special tax/assessment of 5% above their ad valorem real property tax bill. It is further assumed that new commercial development makes a payment to the District that is equivalent to the current transportation impact tax rates for commercial development in a metro station policy area. The revenues from commercial impact taxes were calculated by deriving a weighted average rate for commercial development by use. The total impact tax at build-out was spread evenly over 25 years.

Table B6: Infrastructure financing, by stage and by source, for Alternative 2a

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	**Total**
Impact Tax	$0	$15,360,410	$15,360,410	**$30,720,820**
Accumulated 5% Special Assessment	$5,713,584	$909,066	$1,128,555	
Special Assessment for Bond Payment	$25,132,062	$4,467,078	$5,015,801	
Accumulated Special Assessment Repayment Adjustment	$0	$0	$26,927,989	
Total Special Assessment	$30,845,646	$5,376,143	$33,072,346	**$69,294,136**
Accumulated 15% Tax Increment	$6,374,421	$12,947,079	$34,209,912	
Tax Increment for Bond Payment	$38,783,730	$5,496,426	$41,955,912	
Tax Increment Repayment Adjustment	$0	$0	-$26,927,989	
Total Tax Increment	$45,158,151	$18,443,505	$49,237,834	**$112,839,491**
Total	**$76,003,797**	**$39,180,059**	**$97,670,590**	**$212,854,446**

This alternative results in a significant shift away from private financing of District infrastructure. If the increased gap is to be met by the public sector, the required public sector financing will be significantly higher than under the proposed financing mechanism.

Table B7: Stage 1 comparison of proposed financing mechanism to Alternative 2a

	Stage 1	
Revenue Source	Proposed	Alternative 2a
Impact Tax Revenue	$0	$0
Special Tax/Assessment Revenue	$61,691,292	$30,845,646
Tax Increment Applied to Cover Gap	$12,428,397	$45,158,151
Total	$74,119,689	$76,003,797

In Stage 1, Alternative 2a reduces the revenues from the special tax/assessment from $61.7 million to $30.8 million. The financing gap increases substantially, and the required portion of the general fund increment increases from 10% to 15%. The financing gap increases from $12.4 million to $45.2 million.

Table B8: Stage 2 comparison of proposed financing mechanism to Alternative 2a

	Stage 2	
Revenue Source	Proposed	Alternative 2a
Impact Tax Revenue	$7,592,359	$15,360,410
Special Tax/Assessment Revenue	$10,752,287	$5,376,143
Tax Increment Applied to Cover Gap	$22,994,880	$18,443,505
Total	$41,339,527	$39,180,059

In Stage 2, Alternative 2a performs similarly to the proposed financing mechanism. Commercial impact taxes paid by Stage 1 commercial development adds to the residential impact taxes, and together those impact taxes are applied to reduce the required borrowing for Stage 2 infrastructure. Revenues from the special tax/assessment on new and existing commercial uses drops, however the total commercial burden actually increases in this variation.

Table B9: Stage 3 comparison of proposed financing mechanism to Alternative 2a

	Stage 3	
Revenue Source	Proposed	Alternative 2a
Impact Tax Revenue	$7,592,359	$15,360,410
Special Tax/Assessment Revenue	$66,144,692	$33,072,346
Tax Increment Applied to Cover Gap	$29,698,770	$49,237,834
Total	$103,435,821	$97,670,590

Alternative 2a results in a significant shift from private to public financing for Stage 3 infrastructure. The gap is increased from $29.7 million to $49.2 million.

Table B10: Total (all stages) comparison of proposed financing mechanism to Alternative 2a

	Total	
Revenue Source	Proposed	Variation 2a
Impact Tax Revenue	$15,184,718	$30,720,820
Special Tax/Assessment Revenue	$138,588,271	$69,294,136
Tax Increment Applied to Cover Gap	$65,122,048	$112,839,491
Total	$218,895,037	$212,854,446

Though Alternative 2a results in a small decrease in the overall cost (because the accumulation of 15% of the general fund tax increment reduces borrowing), the total public sector burden increases from $65.1 to $112.8 million. Capturing commercial impact taxes and cutting in half the special tax/assessment results in a substantially greater financing gap.

Alternative 2b: Difference made up by increased public sector gap financing

As in the previous alternative, 2b requires that 15% of the general fund increment is captured in order to cover the Stage 1 bonds, and the special tax/assessment has been reduced from 10% to 5% above the ad valorem real property tax for all new and existing commercial uses. Unlike the previous variation, the District does not charge and capture transportation impact tax equivalent payments to new commercial development.

Table B11: Infrastructure financing, by stage and by source, for Alternative 2b

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	**Total**
Impact Tax	$0	$7,589,120	$7,589,120	**$15,178,240**
Accumulated 5% Special Assessment	$5,713,584	$909,066	$1,128,555	
Special Assessment for Bond Payment	$25,132,062	$4,467,078	$5,015,801	
Accumulated Special Assessment Repayment Adjustment	$0	$0	$26,927,989	
Total Special Assessment	$30,845,646	$5,376,143	$33,072,346	**$69,294,136**
Accumulated 15% Tax Increment	$6,374,421	$12,947,079	$34,209,912	
Tax Increment for Bond Payment	$38,783,730	$17,347,643	$53,807,129	
Tax Increment Repayment Adjustment	$0	$0	-$26,927,989	
Total Tax Increment	$45,158,151	$30,294,722	$61,089,051	**$136,541,925**
Total	**$76,003,797**	**$43,259,986**	**$101,750,517**	**$221,014,300**

Reducing the special tax/assessment without any increases in revenue from other sources obviously results in a substantial shift away from private sector financing.

Table B12: Stage 1 comparison of proposed financing mechanism to Alternative 2b

	Stage 1	
Revenue Source	Proposed	Alternative 2b
Impact Tax Revenue	$0	$0
Special Tax/Assessment Revenue	$61,691,292	$30,845,646
Tax Increment Applied to Cover Gap	$12,428,397	$45,158,151
Total	$74,119,689	$76,003,797

As in Alternative 2a, the increased financing gap requires an increase in the portion of incremental general fund revenues captured by the District from 10% to 15%. This is necessary because a reduced special tax/assessment and 10% of the increment are not sufficient to cover the bond payments on Stage 1 infrastructure.

Table B13: Stage 2 comparison of proposed financing mechanism to Alternative 2b

	Stage 2	
Revenue Source	Proposed	Alternative 2b
Impact Tax Revenue	$7,589,120	$7,589,120
Special Tax/Assessment Revenue	$10,752,287	$5,376,143
Tax Increment Applied to Cover Gap	$22,994,880	$30,294,722
Total	$41,336,287	$43,259,986

The reduction in special tax/assessment rates results in an increase in the financing gap from $23 million to $30.3 million.

Table B14: Stage 3 comparison of proposed financing mechanism to Alternative 2b

	Stage 3	
Revenue Source	Proposed	Alternative 2b
Impact Tax Revenue	$7,589,120	$7,589,120
Special Tax/Assessment Revenue	$66,144,692	$33,072,346
Tax Increment Applied to Cover Gap	$29,698,770	$61,089,051
Total	$103,432,582	$101,750,517

The financing gap in Stage 3 increases from $29.7 million to $61.1 million.

Table B15: Total (all stages) comparison of proposed financing mechanism to Alternative 2b

	Total	
Revenue Source	Proposed	Alternative 2b
Impact Tax Revenue	$15,178,240	$15,178,240
Special Tax/Assessment Revenue	$138,588,271	$69,294,136
Tax Increment Applied to Cover Gap	$65,122,048	$136,541,925
Total	$218,888,559	$221,014,300

Overall, reducing the special tax/assessment rate from 10% to 5% above the overall ad valorem real property taxes results in a doubling of the financing gap for District infrastructure (from $65.1 million to $136.5 million).

May 7, 2009 Memorandum

MCPB
Item #5a
5/7/09

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

May 1, 2009

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Glenn Kreger, Acting Chief, Vision Division

FROM: Jacob Sesker, Planner Coordinator, Vision Division (301.650.5619)

SUBJECT: Worksession #10: White Flint Sector Plan – Status of Implementation

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STAFF RECOMMENDATION: Discuss and provide direction to staff.

PURPOSE OF THIS WORK SESSION

This work session has three purposes:

(1) To review the January 12 public hearing testimony related to the implementation sections of the Draft Sector Plan,
(2) To discuss various legal and public policy considerations affecting the financing and administration sections of the Sector Plan, and
(3) To consider potential changes to the implementation sections of the Sector Plan in light of the new information that has been presented to staff through testimony and subsequent discussions with Executive Branch staff.

This review and discussion will inform staff's efforts to revise the Draft Plan and present those revisions to the Planning Board on June 4, 2009.

SUMMARY

The testimony submitted by the County Executive, and subsequent discussions with the County Executive and officials from various Executive Branch agencies, indicated significant opposition to many implementation elements of the Draft Sector Plan. This memo presents the Planning Board with new information that staff has learned through those discussions, and discusses potential changes to the Sector Plan that would be consistent with that information.

This memo addresses the following topics:

1. Background: Testimony Submitted by County Executive
2. Progress Since Public Hearing
3. Issue Summary and Staff Response
   - A. Legal Considerations
   - B. Policy Considerations
   - C. Cost Considerations
   - D. Administrative Considerations
4. Note: Charter Review Commission

Vision Division, 301-495-4555, Fax: 301-495-1304
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1. BACKGROUND: TESTIMONY SUBMITTED BY COUNTY EXECUTIVE

Most of the testimony addressing the financing mechanism submitted by non-public sector participants could be characterized as favorable. However, the Executive Branch raised a number of significant concerns. The details of those concerns are paraphrased below:

- Financing: The specific mechanism recommended in the plan implicates various legal concerns, and is unnecessary given existing tools. Reserving a portion of the tax increment also implicates policy concerns. The County should not create a closed system, thereby isolating an area of prosperity. The incremental revenue generated by development in White Flint should be available to support spending in other, less successful areas of the County.

- Administration: The proposed administrative mechanism is redundant and unnecessary. The administrative mechanism might also be less accountable than current/existing structures. Decisions about raising and spending money should be made as part of established budget and CIP processes.

2. PROGRESS SINCE PUBLIC HEARING

In the period following the public hearing, staff has met frequently with representatives from the Office of the County Executive and various Executive Branch agencies. The purpose of those meetings has been threefold: to discuss in greater detail the Executive Branch's concerns regarding the Sector Plan generally, to discuss specifically the Executive Branch's concerns as they relate to the administration and financing portions of the Plan, and to learn from the implementing agencies valuable information regarding the implementation of master plans.

Through those meetings staff has developed a more detailed understanding of the implementing tools available in the County today. Synthesizing all of this new information, staff believes that the County Executive and implementing agencies would generally support a Sector Plan that calls for the creation of a Regional Services Center, an Urban Service District, a redevelopment office or similar entity, a special assessment district, and one or more development districts.

- A Regional Services Center would provide White Flint with a representative in the County Executive's cabinet capable of advocating for the White Flint Sector Plan and advancing the implementation of the Sector Plan.

- The Urban Service District[1] would provide targeted services beyond those normally provided by County government. Examples of such services include landscaping, maintenance, marketing, programming, way-finding, and operation of a bus circulator.

[1] The urban service district (similar to the model of the Bethesda Urban Partnership) could receive funding from a number of sources including ad valorem taxes, transfers from the County's general fund, and private contributions. The challenge would be how to fund the Urban Service District without revenues from a Parking Lot District. This is because the amount of revenue that can be generated by the Special Taxes is limited by the Section 305 of the Charter (the "Charter limit," which will be discussed in greater detail below).

- A redevelopment office (or similar Executive Branch entity) would provide specific redevelopment expertise to an area facing a significant redevelopment challenges. A redevelopment office could also help by providing an interface between developers and County agencies regulating development, utilities, State Highways, WMATA, and other affected common carriers and public sector entities.[2]

- A special assessment district could be created by the Council simultaneous to the Sectional Map Amendment. The special assessment district could be coterminous with the Sector Plan boundary and could include all properties within that boundary. The properties within the district could be assessed a share of the cost of certain infrastructure projects proportional to the special benefit received.

- One or more development districts should be created, as necessary. This could be done such that as properties develop they are no longer subject to the special benefit assessment and are instead part of a development district.

Staff's work with the Executive Branch has been productive, and the meetings have become more productive as they have progressed. The Executive Branch has expressed heightened interest in the success of the White Flint Sector Plan. That having been said, some Sector Plan recommendations remain stumbling blocks. As an example, the Executive Branch still opposes the use of Tax Increment Financing or, alternatively, any pre-commitment of a portion of incremental tax revenues.

3. ISSUE SUMMARY AND STAFF RESPONSE

Testimony and subsequent discussions with public sector and private sector stakeholders have raised numerous issues with respect to the implementation recommendations. Staff has divided those issues into the following broad categories:

A. Legal considerations
B. Policy considerations
C. Cost considerations
D. Administrative considerations

Following staff's summary of each of those broad considerations, staff will provide a brief response and recommendations, as appropriate.

A. Legal Considerations

The Draft Sector Plan states: "Levy an annual special assessment or special tax of not more than 10% of the total ad valorem real property tax bill, which would then be applied to all commercial uses within the Sector Plan boundary..." As explained below, this language contemplates a property tax that would implicate Charter limit issues and may violate current Maryland law.

[2] This approach worked successfully in the Silver Spring urban renewal area.

An area of particular focus in our conversations with the Executive is the legality of the financing mechanism described in the Draft Sector Plan and in staff's memorandum dated February 19. While there are a number of legal issues that have been raised by the Executive Branch, the most significant ones are the following:

- A tax that is ad valorem is a property tax
- A property tax implicates the County's Section 305 charter limits[3]
- A property tax, under state law, must be applied equally to residential and non-residential uses[4]

Staff Response and Recommendations

Staff assumes the following:

- A goal of the Sector Plan is an implementable Sector Plan,
- The uncertainty and delay associated with making changes to County law would be acceptable, so long as those changes do not require the agreement of nine Council members, and
- The greater uncertainty and delay associated with changes to State law would be unacceptable.

Logically, those assumptions leave the following possible alternatives:

- Levy the special tax equally on residential and commercial uses and confront the Charter limit issues, or
- Fund a portion of the infrastructure using existing infrastructure finance tools that do not implicate the Charter limit, including:
    - Excise tax
    - Development Districts
    - Special Assessments

Staff will address each of those options in turn.

Levy the special ad valorem tax equally on residential and commercial uses and confront the Charter limit issues. To levy an ad valorem special tax on both commercial and residential uses would be a departure from the principles that have been stated throughout this process. Furthermore, an ad valorem tax would implicate the Charter limit. In essence, in order to be able to raise any significant sums of money using an ad valorem tax, the agreement of nine Council members would be required; alternatively, the County would need to make changes to the Charter limit.[5]

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[3] Section 305 of the Charter generally limits the growth of property tax revenue in any year to the rate of inflation unless nine Council members agree to exceed it. There are a number of special districts that apply a further *ad valorem* property tax to limited geographic areas, including four parking districts, three urban districts, and two noise abatement districts. Although this type of ad valorem tax is charged only to the residents and/or businesses within specified/limited geographic areas, these revenues are counted against the countywide tax limitation.

[4] Article 15 of the Constitution applies to property tax. Article 15 provides some limitation on the authority of the County to tax and requires that the tax must be for public purpose and must be equal and uniform and according to actual value within each class or subclass of land. This is construed as meaning that a property tax should have uniformity of assessment and tax rate.

[5] The Charter Review Commission is currently exploring possible changes that would allow for more revenue to be generated by Special Taxing Districts representing defined geographic areas. Council staff has proposed such changes, and the County Executive is on record as opposing those changes.

Levy an excise tax. Levying an excise tax (a form of tax that is not ad valorem) is one way to raise revenues without implicating the charter limit. One example of an excise tax is a development impact tax.[6] Among the issues related to excise taxes are the following:

- Whether a taxable event must occur (e.g. development)
- Whether that taxable event lends itself to creating a bondable stream of revenue (e.g. a steady and predictable deferred payment of the impact tax)
- Whether it is practically/administratively feasible to collect an impact tax when payment has been deferred (e.g. establish lien priorities, method of collection, etc.)

To take an example, an impact tax on development has a clear taxable event (development). It may be possible to create an impact tax for the White Flint Sector Plan that would apply only to commercial uses[7] and which could be paid/deferred over a period of years, rather than all at once.

Create one or more development districts. Development districts are a tool that was created to finance private infrastructure (using public sector interest rates) and to spread the cost of infrastructure over a period of years. Development districts raise a number of other issues (see below). One issue not raised by development districts is the charter limit—development district taxes/charges are specifically exempted from the Section 305 charter limits.

Development districts raise the issue of consent. Though development, district proceedings can be initiated by the Council or by petition of the landowners, the legislation is interpreted to require consent of the affected landowners regardless of who initiates the development district. In order for a development district to be created around a certain boundary, 80% of the owners by identity and by value must consent to be taxed. As such, this tool is most useful in areas where consent is easily achieved.

Development districts are to be applied only to properties that are not "fully developed." Most if not all of the properties in White Flint could be considered "fully developed".[8] As such, financing a portion of the infrastructure needs using development districts would require changes to the "fully developed" requirement and/or definition in the development district legislation. For example, if all properties within the boundary of a development district were "fully developed," then all properties would be exempt from the development district tax or charge. While the development district could be repaid later when these properties redevelop more intensively, until that time there would be no predictable or bondable stream of revenue.

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[6] Impact taxes are specifically authorized in Section 52-17 of the County Code.

[7] An advantage of excise taxes relative to ad valorem taxes is that there appears to be no State law requirement to apply the same rate to both residential and non-residential land uses.

[8] Section 14-5 (c) states that "any development district...should largely, if not entirely, consist of undeveloped or underdeveloped land." Further, Section 14-10 (b) that "(1) any property which is fully developed before the development district is created is exempt from any special assessment, special tax, fee, or charge imposed under this Chapter; and (2) the owner of any property exempt from payment under paragraph 1 which is later developed more intensively and benefits from any development capacity attributable to infrastructure improvements financed by the district must pay any tax, fee, or charge that it would have otherwise paid under this Chapter."

Create one or more special assessment districts. Special assessments can be imposed by the County where an infrastructure improvement bestows special benefits on a select group of properties. The assessment charged is proportional to the benefit received. While conceptually different from a tax, it is not clear whether a charge to property owners receiving a special benefit is considered a property tax for purposes of the Charter limit. A special assessment district could collect revenue from properties that are already fully developed.

- The Draft Sector Plan should not contain recommendations which violate Maryland law.
- By creating one or more special assessment districts and one or more development districts, the County could avoid the Charter limit, collect revenues from both new and existing development, and spread the cost of private infrastructure over a period of years and among those who benefit from the infrastructure.
- Excise taxes could be used to fund a portion of the infrastructure costs as well, e.g. a development impact tax charged to residential uses.
- While the public sector, as landowner (e.g. of the Conference Center), could participate in a development district or special assessment district, doing so may not close the infrastructure financing gaps identified in earlier analyses.

B. Policy Considerations

The County Executive's testimony states:

> "The proposed plan proposes that increases in the tax base be reserved at least in part for the infrastructure for the White Flint planning area. This raises significant policy considerations that are a major departure from County budget and financing strategies relative to determinations about projects competing for general fund support. The dedication of general funds will create an undesirable precedent of isolating areas of economic prosperity. Historically, general tax funds from these areas have also benefitted economic development and infrastructure improvements in less prosperous areas. This is an area of the plan that simply needs more thought and work."

In addition, it has been the fiscal policy of the County to eschew Tax Increment Financing.[9] Though TIF is available to jurisdictions in Maryland, it has not been used in Montgomery County. In discussions with the Department of Finance, staff has learned that the County feels that it should not borrow money at a higher rate of interest using TIF bonds than it would be able to get for issuing general obligation bonds.

The Executive fundamentally disagrees with the proposal in the Sector Plan to capture a portion (staff's report of February 19 estimated that portion at 10%) of the incremental general fund tax revenues and direct that incremental revenue to infrastructure investments.

[9] Tax Increment Financing is a tool that is often used, with varied success, to finance infrastructure in redevelopment areas. Though the tool is available in Maryland, it is not used in Montgomery County. Staff has written more about Tax Increment Financing in past memoranda. A description of TIF can be found in Attachment D.

Staff Response and Recommendations
Whether or not TIF is used to implement the White Flint Sector Plan, general funds will be necessary in order to pay for the infrastructure included in this Plan. Given that fact, in many respects the question becomes how to balance the public sector's desire for flexibility to allocate general fund resources through the budget CIP process and the private sector's desire to have some certainty with regard to the timing and pace of public sector contributions from the general fund.

- Staff created a financial model of an infrastructure financing mechanism; that mechanism was deemed necessary in part because of the extraordinary cost of road improvements in the Sector Plan area, which were driven by the extraordinary cost of the improvements to Rockville Pike. The Rockville Pike improvements would extend throughout the Sector Plan area, as well as beyond the boundary of the Sector Plan area. It would be reasonable to expect the public sector to pay a substantial portion of the cost of the Rockville Pike improvements.
- TIF would be an appropriate tool for funding the public sector's share of the costs of improvements to Rockville Pike, though the public sector may choose to pay for the Rockville Pike improvements using traditional financing tools.

For additional details regarding TIF, see Attachment D.

C. Cost Considerations

In meetings occurring after the Public Hearing, the Executive Branch[10] has communicated its concerns regarding the infrastructure cost assumptions made by staff in the transportation technical appendix and in staff's financial analysis of the proposed financing mechanism (as presented to the Board as a staff report on February 19, 2009). The Executive is concerned that staff understated the cost of infrastructure and overstated the feasibility of financing the Sector Plan's implementation. In particular, the Executive Branch is concerned that the Sector Plan and February 19 staff report fail to account for the cost of right-of-way acquisition that would fall to the public sector wherever rights-of-way are not dedicated as a condition of subdivision/redevelopment.[11]

Staff Response and Recommendations
Staff's February 19 memorandum did not address the cost of acquiring rights-of-way. Based on a detailed review of the Sector Plan area and all presentations by property owners during the land use work sessions, staff believes that the County will need to acquire the following:

- Land for the Civic Green
- Land for the realignment of the five-legged intersection at Old Georgetown Road and Executive Boulevard
- Land for the Main Street

[10] The Executive Branch is required by law to submit to the Council a fiscal analysis of every master plan approved by the Planning Board.
[11] The County Executive is also concerned about the cost of public parking (constructing and/or acquiring land for parking lots). These concerns will be addressed as a part of the transportation work sessions.

Staff's earlier analysis (see February 19 memo) estimated a total financing gap over the three stages of roughly $65 million, not including any right-of-way acquisition or parking.[12] Staff estimated the cost of the Rockville Pike improvements in Stage 3 at $66 million.

- Land for the Civic Green could be paid for out of the proposed Amenity Fund or ALARF.
- There may also be opportunities to site the Civic Green on land acquired for road rights-of-way, or to swap abandoned land or remainders of parcels acquired for ROW for an appropriate parcel. All land for the Stage 1 rights-of-way (i.e. excluding any cost of Rockville Pike ROW) and the Civic Green could likely be acquired for $15 million to $30 million (approximately 150,000 square feet at $100 to $200 per dirt square foot).
- Staff's February 19 memorandum estimated the financing gap, and consequently the public sector obligation for roadway improvements, at $65 million. Based on new information, staff would now estimate that cost at $80 million to $95 million ($65 million to close the financing gap plus $15 million to $30 million in Stage 1 land acquisition).
- Public sector financing could be directed to Rockville Pike improvements and/or to improvements close to the Conference Center site.

D. Administrative Considerations

The County Executive notes that there are mechanisms authorized by existing law that can achieve many of the goals of the Sector Plan. The Executive notes that Parking Lot Districts and Urban Service Districts are tools that are available to achieve some of the objectives of the Sector Plan.

The Executive also expressed concern that decisions regarding taxation and budgeting belong in established public processes and agencies, and has expressed concern that the proposed Authority would lack accountability.

Staff Response and Recommendations

Staff recognizes that existing structures, along with ample public investments, have played a significant role in the successful redevelopment of the Silver Spring CBD. Staff also recognizes that existing County structures, and partnerships with the private sector, have played a significant role in the success of the Bethesda CBD.

Parking Lot Districts are a valuable source of revenues for funding the activities of Urban Service Districts; however, Parking Lot Districts require public ownership of land. In the absence of Parking Lot District revenues, an Urban Service District would rely on funding from a special tax (minimal, and subject to the charter limit), transfers from the general fund, and other private or public contributions.

Urban Service Districts and Regional Services Centers have established relationships with Executive Branch agencies and established protocols for addressing the particular needs of local urban areas. Urban Service Districts typically provide "clean and safe" programs (provide greater levels of public safety and cleanliness, way-finding, event programming, etc.) and are generally not involved in building infrastructure, programming infrastructure, or funding infrastructure. Bethesda Urban District services are provided by the Bethesda Urban

[12] Parking will be addressed in a future transportation work session.

Partnership, Inc., a County-established Urban District Corporation, under contract with the Bethesda-Chevy Chase Regional Services Center. The Silver Spring and Wheaton Urban Districts are managed by Regional Service Center employees.

A redevelopment office or similar Executive Branch entity could work with the Regional Services Center and Urban Services District.

- The White Flint Sector Plan area should be administered by existing Executive Branch structures. Those structures include a Regional Services Center, an Urban Service District, and a redevelopment office.
- In the absence of a Parking Lot District as a source of revenue, the operation of these entities would depend heavily on transfers from the general fund.

4. NOTE: CHARTER REVIEW COMMISSION

The Constitution of Maryland, Article XI-A, enables counties to adopt charters to establish local governments. Montgomery County has chosen this form of government. Montgomery County's charter serves a role similar to that of a constitution because it establishes the duties and responsibilities, and limitations on power for the different branches of government.

Charter Section 509 requires the quadrennial appointment of an eleven-member, bipartisan Commission to study the Charter and make recommendations on potential Charter amendments. The Charter Review Commission researches and evaluates Charter issues raised by the Executive, Council members, other government officials, and the public. Since July 2007, the Charter Review Commission has studied a variety of issues that could result in Charter amendments. One such issue, raised by Council staff and some Council members, is whether certain special taxing districts should be excluded from the Charter's limitation that property tax revenue should not increase faster than the rate of inflation.

The Charter Review Commission is currently considering possible changes that would increase the amount of revenue that could be raised in special taxing districts, so long as those districts are limited geographic areas. The County Executive opposes changes to the Charter limits.

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Attachments
A. Public Hearing Draft, Selected Portions, Implementation Chapter
B. Testimony of the County Executive on the Public Hearing Draft White Flint Sector Plan
C. Acquisition and Abandonment
D. Tax Increment Financing (TIF)
E. Tyson's Corner
F. Development District Act

cc: Piera Weiss, Master Planner

ATTACHMENT A: PUBLIC HEARING DRAFT, SELECTED PORTIONS, IMPLEMENTATION CHAPTER

Administration

This Plan recommends an administrative structure, the White Flint Redevelopment Implementation Authority, to oversee the orderly implementation of the public infrastructure and other aspects of the White Flint Sector Plan. The Authority would have broad and carefully defined powers, as well as numerous responsibilities. These powers and responsibilities would be greater than currently authorized for entities such as the Bethesda Urban Partnership. The Authority would be similar to a municipality in that it would perform a number of varied functions.

Creating the White Flint Redevelopment Implementation Authority will require enabling legislation and amendments to existing legislation at both the County and State level.

At a minimum, the Authority should be authorized to perform the following functions:

- Hire or contract for administrative, legal, and accounting staff.
- Contract with architects, engineers and other technical professionals for the purpose of designing or coordinating projects deemed necessary for successful master plan implementation.
- Enter into contracts to purchase, sell, or lease real property and personal property.
- Collect revenues from taxes and assessments, make any necessary disbursements, and issue bonds as necessary for successful master plan implementation.
- Sue or be sued, and file any necessary legal actions (including eminent domain).
- Prepare a capital program designating facilities to be constructed, estimated costs of each facility, and prioritize those facilities consistent with the goals of the Plan.
- Enter into contracts, agreements, or memoranda of understanding for the construction of capital facilities.
- Participate in the ongoing affairs of the Sector Plan area, including maintenance, security and branding/marketing efforts.

In addition to those powers, the Authority would possess certain responsibilities. The responsibilities of the Authority should include:

- Maintain accurate records of revenues and expenditures, including an annual audit of its operations and accounts.
- Prepare an annual operating report, to be transmitted along with the annual audit, to the Planning Board for review and then to the County Council.
- Prepare an annual report of development activity and traffic congestion levels to transmit to the Planning Board and the County Council.
- Establish a protocol for receiving public input, including open hearings and work sessions.

- Review and comment on project plans and other pertinent actions that come before the Planning Board.
- Governance by a board with representatives from a broad group of stakeholders and County agencies.
- Establish a protocol for determining which infrastructure projects should be funded in each stage of development, as established in this Plan, as well as a protocol for changing the infrastructure staging to reflect emerging realities.
- Establish a protocol for determining that enough development has occurred to merit the issuance of bonds for the next stage of infrastructure projects.

Some portion of the revenues from the Parking Lot District, recommended in the Staging Plan, could be made available to support the transportation-related capital and operating budget of the Authority.

Financing

Successful implementation of the White Flint Sector Plan will require substantial public and private investment in infrastructure and other public facilities, as well as timely delivery of key infrastructure. In White Flint, as elsewhere, the public and private sectors will share the costs of the necessary infrastructure and facilities. Certain capital costs may be financed entirely by the private sector, others may be financed entirely by the public sector, and others still may be financed by the public and private sectors together.

Excessive reliance on piecemeal private sector delivery of capital facilities can result in haphazard, "Swiss-cheese" development patterns. Excessive dependence on public sector capital improvement programming can often result in infrastructure delivery that is slowed by politics or bonding capacity, and which favors projects that add lane capacity over those that improve aesthetic qualities of place. As such, finding the proper balance between public and private sector financing and delivery of infrastructure can prove critical to successful implementation of complex redevelopment plans.

Montgomery County has a number of tools available to close financing gaps for needed capital improvements; those tools work either by channeling private-sector capital into public projects or by reinvesting revenues generated by development in White Flint to improvements within White Flint. Impact taxes and adequate public facilities payments are two significant mechanisms the County uses to direct private money to finance capital facilities. These tools allow government to recoup costs associated with growth at the time that new development occurs.

However, other tools may be more appropriate in situations in which timeliness of delivery is an important consideration, when the cost of the project is disproportionate to the benefit for any individual property owner, and when the class of property owners receiving benefit is large. Examples of effective tools include:

- Tax-Increment Financing (TIF) Districts
- Special Taxing Districts and Special Assessment Districts

Using any one of these financing mechanisms, or a combination of these financing mechanisms, the County could create a mechanism capable of repaying bonds issued to pay for certain infrastructure/public facility projects.

The following principles were established to guide the development of the financing mechanism:

- *Value capture*: To the extent possible, capture impact taxes paid by development in the district to spend on projects within the district. To the extent possible, capture a portion of the incremental property tax revenue to spend on projects within the district.
- *Leverage future private sector revenues*: To the extent possible, allow future private sector revenues to pay for current projects. Eliminate, reduce or phase-out transportation impact taxes on commercial uses, and replace the impact taxes with a special assessment on commercial uses that can be used to meet the financial obligations of the district, including retiring the debt issued to pay for "district" infrastructure costs.
- *Leverage future public sector revenues:* To the extent necessary, leverage future incremental property tax revenues to cover a portion of the cost of up-front mobility projects that are necessary precursors of the planned improvements to Rockville Pike.

Those principles are reflected in the following implementation strategy:

- Expand the Metro Station Policy Area boundary to be coterminous with the Sector Plan boundary. Within the Sector Plan boundary, all non-exempted transportation impact fees on new development will be captured and applied to pay down debt on bonds issued for designated public infrastructure and facilities projects within the Sector Plan.
- Fund the district through a special assessment or special tax. Levy an annual special assessment or special tax of not more than 10 percent of the total ad valorem real property tax bill, which would be applied to all commercial uses within the Sector Plan boundary from such time as the first bond is issued to finance designated public infrastructure and facilities projects and continuing until such time as the last bond financing a capital project designated in the Sector Plan is retired.
- In order to create a transportation network capable of accommodating the future disruption to mobility along Rockville Pike resulting from the Rockville Pike improvement projects, the County should contribute to the financing of key up-front mobility projects. County participation should be in the form of General Obligation debt to be paid out of the County's General Fund and supported by the net new revenue generated by the White Flint redevelopment; alternatively, Tax-Increment Financing would be an appropriate tool to meet the public sector's share of the cost of district projects.

ATTACHMENT B:

TESTIMONY OF THE COUNTY EXECUTIVE

ON THE

PUBLIC HEARING DRAFT WHITE FLINT SECTOR

January 12, 2009

Good evening. I am Diane Schwartz Jones with the Office of the County Executive. Thank you for this opportunity to provide the County Executive's comments on the Public Hearing Draft for the White Flint Sector Plan. The staff draft is a significant effort that proposes a bold vision premised on a new, responsible approach to development that is cognizant of the environment and the need for sustainability and that focuses denser development around mass transit. The draft plan also has as a key theme the "taming" of Rockville Pike into a pedestrian friendly, inviting boulevard. The County Executive generally supports the vision and objectives of the draft plan, but believes it needs more work.

Some of the plan recommendations are a significant departure from existing County policy on financing and administration, growth policy, and transportation policy. Without taking away from the vision and objectives expressed throughout the draft plan, these departures need to be fleshed out, and in some cases, modified.

The Executive's major concerns are addressed in this testimony. We are also providing Planning Board Staff with more detailed. The draft plan has many important concepts to embrace, but as always, the "devil is in the details." We look forward to continuing to work with the Planning Board and your staff as you advance the vision for the White Flint Sector Plan and work through the details of the plan.

Financing and Administration

A key concern that we have raised with the Planning Board Staff is the recommendation in the draft plan that a Redevelopment Implementation Authority be created that would essentially have many of the functions of both the Executive and Legislative branches of government. Such an authority is unnecessary, redundant, expensive, and would lack electoral accountability. The plan proposes an authority that would have broad powers to collect taxes, issue bonds, condemn property, make determinations as to which projects should be built, enter into contracts to design and build projects, purchase and sell property, and participate in the "ongoing affairs" of the White Flint Planning area for maintenance, security and marketing, etc. Such duplication of powers is unnecessary and the County Executive does not support the creation of an autonomous development authority to implement this master plan. Decisions on taxation,

budgeting, and capital project development belong within the established public processes and agencies. The objectives cited as the reason for the creation of a separate authority can be accomplished through many existing tools that we have used in other areas of the County such as through a parking lot district and/or an urban district. We also have tools for financing that bears greater analysis.

The Executive supports focusing development contributions to pay for local infrastructure, however, the draft plan raises serious policy concerns and lacks detail about the assumptions of the public/private funding split. The proposed plan proposes that increases in the tax base be reserved at least in part for the infrastructure for the White Flint planning area. This raises significant policy considerations that are a major departure from County budget and financing strategies relative to determinations about projects competing for general fund support. The dedication of general funds will create an undesirable precedent of isolating areas of economic prosperity. Historically, general tax funds from these areas have also benefitted economic development and infrastructure improvements in less prosperous areas. This is an area of the plan that simply needs more thought and work. There are tools under existing County law to fund infrastructure. We should explore these tools. If we determine that changes may be useful we can pursue any such change. This in particular is an area in which collaborative work between the Executive Branch and the Planning Board will be very helpful. Your staff has begun to engage us on this topic and we look forward to continuing to work with your staff and the community to plan for how the infrastructure can be funded.

Transportation and Growth Policy

We agree with the objective of the proposed plan to focus development around metro, however, this also is an area that needs more work and analysis to determine how to accomplish this objective. In order to achieve the significant density increases proposed in the draft plan, the metro and transit system needs to be able to accommodate the ridership that will be generated. The Department of Transportation has identified reservations about the ability of the transportation infrastructure to support actual congestion generated by the recommended levels of new development projected for White Flint. Previously, transportation capacity was measured by trip generation and Critical Lane Volume. This plan sets a goal for a transit-focused, multi-modal mobility system to support a bustling urban center. The draft plan moves away from capacity-focused principles which have been used to link growth with public facilities in Montgomery County.

The plan proposes that LATR standards can be met with a proposed expansion of the Metro Station Policy Area boundaries to the entire Plan area. This action will serve to set higher levels of acceptable congestion at intersections which will enable developments to pass LATR review with less mitigation. The Executive is concerned that this approach will lead to congestion in the White Flint area that exceeds levels currently allowed in the area. Even with the higher threshold of acceptable congestion, the Plan assumes that two intersections -- MD 355 and Old Georgetown Road, and Old Georgetown Road and Executive Boulevard -- will fail LATR.

Policy Area Mobility Review, or PAMR, standards for automobile congestion should not be lowered. Such a change would provide unacceptable automobile congestion in transit-oriented areas. Buses need to travel along these streets with the cars in order to support transit use. The Draft Plan rests on the assumption that the current PAMR Standards can be changed and lowered for the White Flint Plan, this is contrary to the 2007 Growth Policy.

The Executive supports the creation of a new public facility review procedure applicable to all development in the White Flint Sector Plan Area if it is based on an end-state that achieves balance between land use and transportation.

Parking

The Plan appears to show the need for 9,000 new parking spaces, at an estimated cost of approximately $360 million, excluding land. Although the Plan refers to a number of public facilities to be constructed and defines their size and location, there is only one location, other than on-street meters, identified for a possible parking garage/PLD facility. Greater specificity is needed regarding the location of parking in the Plan.

Montgomery County Aquatic Center/Wall Park

In order for the Montgomery County Aquatic Center to continue existing operations it requires direct convenient access and a minimum of 250 parking spaces. Expansion of Aquatic Center would require a greater commitment to both access and parking. Relocating parking for the Aquatic Center to an adjacent parcel may be a challenge as the plan identifies this same parcel as a possible school site. It seems difficult at best to locate a large parking structure and a school on the same parcel – a parcel which may also be potentially encumbered by SHA intersection improvements/realignments as a part of future work on the Montrose/Randolph/355 interchanges.

Civic Green

The Conference Center site was originally acquired with Federal transit funds. Use of this site must be for transit oriented development. For this reason, we recommend that the Civic Green be located on the east side of Rockville Pike rather than the west side. This would enhance making the White Flint Metro a truly dense, mixed-use development for Montgomery County.

Regional Services Center/Express Library

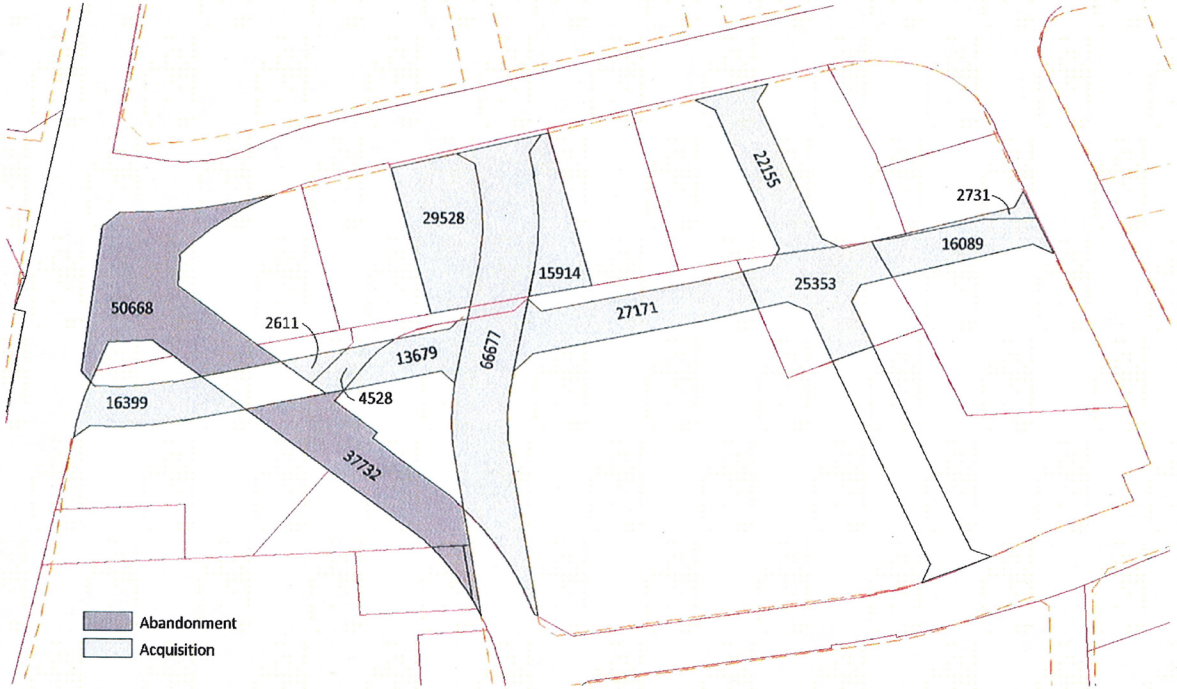
We think it would be beneficial for the Plan to recognize and address the need for offices for urban/business district staff. This could be accomplished though the establishment of a satellite regional services center under the management of the

Bethesda-Chevy Chase Regional Services Center. Such a facility could also include public meeting space and offices for the North Bethesda TMD. We recommend that the proposed express library be included as a street front component of this facility located adjacent to a relocated Civic Green or in the North Bethesda Town Center. Our preference is that any public meeting space be located as described earlier rather than with the Express Library.

In conclusion, the County Executive supports the approach the Planning Board staff has proposed for the vision for White Flint and the design principles aimed at achieving sustainability. We do not support creating an authority as laid out in the draft plan and we urge the Planning Board to have staff do more work on the plan with our staff before it is finalized. This will enable infrastructure, staging and transportation concerns to be better addressed resulting in a more sustainable long range vision for White Flint. We will provide more detailed comments to your staff and we look forward to working with you and your staff on this important plan.

Thank you for the opportunity to share our views.

ATTACHMENT C: ACQUISITION AND ABANDONMENT



ATTACHMENT D: TAX INCREMENT FINANCING (TIF)

Introduction

In a TIF, property tax revenues derived from the *increase* in assessed values due to appreciation and/or new development are used to pay off bonds issued for improvements in the TIF District. At the time the District is created, a baseline of revenues is established. Revenue above that baseline accrues to the District and is applied to the debt payments.

TIF assists the jurisdiction to unlock the development potential of targeted areas without having infrastructure development directly tied to whether or not a particular development moves forward. TIF also allows a greater share of the private money chasing profits in a targeted market to be directed to development of taxable uses, often decreasing to some extent the amount of private capital spent on infrastructure projects.

Recent TIF districts in the region have been backed by Special Assessment districts. In the event that the TIF district does not meet projected revenues, all property owners within the district are assessed a share of the shortfall.

Purpose of TIF

Many state and local government officials believe that without government participation in the development or redevelopment of urban areas, real estate developers and investors are more willing to invest in "Green field" sites, where land costs are lower, public facility capacity is less encumbered by existing development, and infrastructure investments are less likely to be expensive retrofits.

Under certain circumstances, TIF can serve as an effective tool for jurisdictions seeking to fund economic development of targeted geographic areas, especially those that contain "Brownfield" or "Grayfield" sites. Similarly, state and local officials in jurisdictions around the nation recognize that TIF can be a valuable tool in suburban transit-oriented development (TOD) projects as a way of meeting the high costs of retrofitting aging and suburban infrastructure.

TIF in Maryland

The Maryland Tax Increment Financing Act authorizes most Maryland counties and municipalities to use TIF for the purposes of financing certain development/redevelopment projects. See the Maryland TIF Act, Article 41 of the Annotated Code of Maryland, Sections 14-201 through 14-214.

Under the TIF Act, authorized governmental bodies may issue TIF bonds for the purpose of financing development or infrastructure to support development. The first step in that process requires the government to create a TIF District (see Article 41, §14-206) and a special fund (see

Article 41, §§14-207 and 14-208). The TIF bonds issued are then payable from the special fund which holds the incremental tax payments associated with the TIF District.

Under the TIF Act, neither a finding of "blight" nor a "but for" analysis is required as a precondition to the establishment a TIF District. The Act simply states that "the governing body of the issuer shall designate by resolution a contiguous area within its jurisdiction as a 'development district'." Maryland law then grants "the governing body of any county or municipality [the authority to] adopt a resolution creating a special fund....with respect to a development district."

While the fact that no finding of "blight" is necessary or "but for" analysis is required is an indication that TIF law in Maryland is relatively liberal, Maryland TIF law is limited in the range of revenues that can be captured by a TIF district. Jurisdictions in Maryland, unlike jurisdictions in some other states, cannot capture incremental sales tax revenues within a TIF district.

TIF Financing Terms

TIF bonds are unsecured, revenue bonds. In their purest form, they are backed by a projection of the District's tax revenues. The full faith and credit of a jurisdiction is not necessarily at risk when a TIF bond is issued. While all of these factors contribute to TIF bonds' flexibility, they also contribute to risk. When underwriters feel that the risk associated with using TIF is too high, then any of a number of conceptually similar financing tools may be more appropriate.

TIF Boundaries

In theory, TIF boundaries should be drawn narrowly enough to allow the whole district to benefit from TIF investments. However, bond placement agencies often prefer to see TIF Districts that are large and diverse, thereby reducing the risk of default. However, larger districts raise questions as to why the TIF District is so large as to include areas that receive little or no benefit from the new development. Districts that are too large also can create political and inter-jurisdictional problems.

Smaller and more narrowly drawn TIF districts usually require higher debt coverage ratios (i.e. a lower percentage of net operating income can be used for debt payment because the small TIF district is perceived to be riskier). For example, a project that will generate an annual tax increment of $1 million might have a large TIF district boundary and a debt coverage ratio of 1.25 (i.e. $800,000 available each year for principal and interest); the same project with a more narrowly drawn TIF district boundary might have a debt coverage ratio of 1.67 (i.e. $600,000 available each year for principal and interest).

ATTACHMENT E: TYSON'S CORNER

Fairfax County is in the process of amending its comprehensive plan in order to address the redevelopment of the area designated as Tyson's Corner Urban Center. According to the Draft Plan, "Successful implementation will require: commitment to the vision and Guiding Planning Principles; committed leadership; dedicated professional staff[13] at the County and other agencies; loyal, hard-working citizen participants; and a private sector willing to work together to seize new opportunities and learn new development and building techniques."

The Chapter broadly outlines an implementation strategy which includes detailed planning, an implementation entity, funding strategies, public-private partnerships, private-private partnerships, a regulatory framework, and phasing of private and public improvements. Of particular interest are the recommendations addressing the implementation entity and the recommendations addressing funding strategies.

The implementation entity is conceived as a "keeper of the vision," and is to be established by the Board of Supervisors (equivalent to the County Council). The entity will work "in conjunction with, and supplemental to" the Fairfax County structure. "It is intended that the implementation entity work in conjunction with Fairfax County by recommending infrastructure to support development, requesting capital improvements, and being part of the budgeting process."

The entity would work with the County and the State to develop urban standards for improvements to the public realm, develop design guidelines, changes to the Zoning Ordinance, changes to standards of adequacy for public facilities, research and develop a list of priority infrastructure and amenity projects, participate in the zoning process through design review, and monitor and review plans. In addition, the plan states that the entity could plan and implement initiatives affecting: schools, parks, libraries, transportation enhancements such as bus circulators, improved streetscapes, infrastructure, enhanced public safety, maintenance of common areas, litter and graffiti control, and cultural and recreational activities and facilities. Finally, the plan recommends that the entity "raise and expend funds for all types of improvements and initiatives to be carried out by the implementation entity."

With respect to funding, the Draft Plan accepts the premise that existing public and private funding mechanisms will not be able to meet the substantial cost of the infrastructure and amenities outlined in the Plan. The Draft includes a list of mechanisms that could be used, but does not match up funding mechanisms with specific projects or groups of projects.

[13] In the case of the revitalization of Silver Spring, Montgomery County designated individuals in key departments to work on an Executive Branch task force.

ATTACHMENT F: DEVELOPMENT DISTRICT ACT

Chapter 14. Development Districts.

Article I. General Provisions.

§ 14-1. Short title.

§ 14-2. Purposes.

§ 14-3. Definitions.

§ 14-4. Powers of County.

Article II. Creating a Development District.

§ 14-5. Location.

§ 14-6. First Council resolution.

§ 14-7. Planning Board review; compliance with adequate public facilities and Annual Growth Policy requirements.

§ 14-8. Executive fiscal report.

§ 14-9. Second Council resolution.

Article III. Financing a Development District.

§ 14-10. Special taxes and assessments.

§ 14-11. Special fund.

Article IV. Issuing Debt.

§ 14-12. Bonds-Payment, sinking funds, reserve funds, pledges and other financial guaranties, proceeds.

§ 14-13. Resolution; investment of special fund or sinking fund; tax exemption.

§ 14-14. Form, terms and conditions of bonds.

§ 14-15. Credit of County not pledged.

Article V. Miscellaneous Provisions.

§ 14-16. Administration of district; termination.

§ 14-17. Disclosure; notices.

§ 14-18. Construction of chapter.

Article I. General Provisions.

Sec. 14-1. Short Title.

This Chapter may be referred to as the Montgomery County Development District Act. (1994 L.M.C., ch. 12, § 1.)

Sec. 14-2. Purposes.

(a) The purposes of this Chapter are to:

(1) authorize the County to provide financing, refinancing or reimbursement for the cost of infrastructure improvements necessary for the development of land in areas of the County of high priority for new development or redevelopment by creating development districts in which special assessments, special taxes, or both, may be levied;

(2) authorize the issuance of bonds or other obligations of the County that are payable from special assessments or special taxes collected, in a development district;

(3) specify the procedures to be followed in creating a development district, issuing bonds, and assessing and enforcing the collection of special assessments or special taxes in such a district; and

(4) provide for the tax-exempt nature and form of the bonds.

(b) Development districts would be especially useful in achieving these purposes where:

(1) an approved master plan recommends significant development in a specific area of the County;

(2) the infrastructure needs necessary to serve that development include extensive and long-term facilities; and

(3) the real estate market and the availability of land will permit significant development within the life of a development district. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

*Editor's note—2008 L.M.C., ch. 34, took effect on January 26, 2009.

2008 L.M.C., ch. 34, § 3, states: Applicability; interpretation.

(a) Any amendment to County Code Chapter 14 made in Section 1 of this Act applies to any action taken after this Act take effect.

(b) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not alter or affect any Council resolution adopted, or other action taken with respect to a development district, before this Act takes effect.

(c) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not indicate that the previous version of a provision amended by Section 1 of this Act should be interpreted differently from the same provision as amended by Section 1 of this Act.

(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Sec. 14-3. Definitions.

In this Chapter the following words have the following meanings:

Adequate Public Facility means any infrastructure improvement required by the Planning Board as a condition of approving a preliminary plan of subdivision under Section 50-35(k) or identified in the County Growth Policy as necessary for adequate public facilities approval in a development district.

Additional Public Facility Capacity means the provision of an infrastructure improvement not fully funded in the first 4 years of the County's then-applicable Capital Improvement Program.

Administrative Expense means any expense incurred by any County department or office in connection with the administration or funding of a development district, including:

(1) any expense directly related to levying and collecting any special tax, special assessment, fee, or charge under this Chapter;

(2) any expense of complying with any arbitrage rebate requirement or disclosure requirement under federal or state law;

(3) an allocable share of the salary of any County employee who is primarily responsible for the administration or funding of a development district;

(4) an allocable share of County administrative overhead related to the administration and funding of a development district; and

(5) the fees and expenses of any fiscal agent employed by the County in connection with development district bonds.

Bond means a special obligation or revenue bond, note, or similar instrument issued under this Chapter or any other law if the indebtedness evidenced thereby will be repaid from revenue generated by special assessments, special taxes, fees, or charges levied under this Chapter in a development district.

Cost means the aggregate dollar cost of:

(1) building, rebuilding, or renovating any infrastructure improvement, and acquiring any land, structure, real or personal property, right, right-of-way, franchise, easement, or interest;

(2) machinery and equipment, including machinery and equipment needed to expand or enhance services in a development district;

(3) financing charges and interest before and during construction and, if the Executive finds it advisable, for a limited period after completing construction; interest and reserves for principal and interest, including costs of municipal bond insurance and any other financial guaranty, costs of issuance, and administrative expenses;

(4) extensions, enlargements, additions, or improvements;

(5) architectural, engineering, financial, and legal services;

(6) plans, specifications, studies, surveys, and estimates of costs or revenues;

(7) expenses necessary or incident to deciding whether to proceed with a district or any infrastructure improvement; and

(8) any other expense necessary or incident to building, acquiring, or financing any infrastructure improvement.

Development includes redevelopment of underdeveloped land.

Development District means a special taxing district created for the purposes listed in Section 14-2 and, if a resolution adopted under Section 14-9 creates one or more subdistricts in a development district, each subdistrict.

Infrastructure Improvement means a school, police station, fire station, library, civic or government center, storm drainage system, sewer, water system, road, bridge, culvert, tunnel, street, transit facility or system, parking lot or facility, sidewalk, lighting, park, recreational facility, or any similar public facility, and the land where it is or will be located.

Owner means a person or entity with legal title to property, or a contract purchaser of a property.

Special Assessment means a levy on property which is assessed in relation to any special benefit received from the construction of one or more infrastructure improvements to support development in a development district.

Special Benefit means any advantage or betterment accruing to real property as the direct result of any infrastructure improvement. The allocation of any additional public facility capacity to a development project is a special benefit.

Special Fund means an independent account in which special assessment, special tax, fee, or charge payments received for a development district are deposited and, if a resolution adopted under Section 14-9 creates one or more subaccounts in a special fund, each subaccount.

Special Tax means a property or excise tax levied in a development district, not based on any special benefit received, to pay for one or more infrastructure improvements to support development in that district. (1994 L.M.C., ch. 12, § 1; 2004 L.M.C., ch. 2; § 2; 2008 L.M.C., ch. 34, § 1.)

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(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Sec. 14-4. Powers of County.

In addition to any power granted under any other law, the County may, subject to applicable state law and this Chapter:

(a) create one or more development districts;

(b) levy special assessments, special taxes, fees, or charges, in any development district; and

(c) issue bonds and other obligations payable from special assessments, special taxes, fees, or charges, levied in any development district. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

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(c) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not indicate that the previous version of a provision amended by Section 1 of this Act should be interpreted differently from the same provision as amended by Section 1 of this Act.

(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Article II. Creating a Development District.

Sec. 14-5. Location.

Any development district:

(a) must be located entirely in the County, but may include land in any municipality;

(b) need not consist of a contiguous geographic area unless otherwise required by State law;

(c) should largely, if not entirely, consist of undeveloped or underdeveloped land; and

(d) may be used to finance an infrastructure improvement located outside the district if the improvement is located in the County and related to the development or use of land in that development district. (1994 L.M.C., ch. 12, § 1.)

Sec. 14-6. First Council Resolution.

(a) If a petition to create a development district signed by at least 80 percent of the owners of real property and the owners of at least 80 percent in value of the real property, as shown by the most recent assessment records available from the State Department of Assessments and Taxation or any successor agency on the date the petition is filed, located in a proposed development district, is filed with the Council, the Council must hold a public hearing after at least 15 days notice in two newspapers of general circulation in the County. The petition must specify the boundaries of the proposed district and list the maximum number of housing units and the maximum nonresidential space that the signing property owners intend to build in the district.

(b) Alternatively, the Council, on request of the Executive or on its own motion, may hold a public hearing after giving notice as required in subsection (a). The notice must:

(1) specify the proposed boundaries of the proposed district, and

(2) list the maximum number of housing units and the maximum nonresidential space expected to be built in the district.

(c) After holding a hearing under subsection (a), the Council, by resolution approved by the Executive, may declare its intent to create a development district consisting of a specified geographic area. In the resolution the Council must explain why intensive development of and public investment in that area during the term of the district will benefit the public interest.

(d) If the Executive disapproves a resolution adopted under this Section within 10 days after it is adopted and the Council readopts it by a vote of six Councilmembers, or if the Executive does not act within 10 days after the Council adopts it, the resolution takes effect.

(e) For the purposes of this Section, multiple owners of a single parcel of real property must be treated as one owner and a single owner of multiple parcels must be treated as one owner.

(f) The adoption of a resolution under this Section does not:

(1) obligate the Council to create a development district;

(2) confer any contract, property, or other right on any person; or

(3) limit a district to the area described in the resolution.

(g) After the Council has adopted a resolution under Section 14-6, the Executive may require any applicant for provisional adequate public facilities approval under Section 14-7 to pay one or more filing fees or provide other financial assurances, in amounts and installments set by Executive regulation, to cover all costs of:

(1) Executive review of the proposed district;

(2) preparation of the fiscal report required under Section 14-8; and

(3) preparation of any bond issue or other financing after the district is created. (1994 L.M.C., ch. 12, § 1; 1996 L.M.C., ch. 1, § 1; 2008 L.M.C., ch. 34, § 1.)

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2008 L.M.C., ch. 34, § 3, states: Applicability; interpretation.

(a) Any amendment to County Code Chapter 14 made in Section 1 of this Act applies to any action taken after this Act take effect.

(b) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not alter or affect any Council resolution adopted, or other action taken with respect to a development district, before this Act takes effect.

(c) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not indicate that the previous version of a provision amended by Section 1 of this Act should be interpreted differently from the same provision as amended by Section 1 of this Act.

(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Sec. 14-7. Planning Board Review; Compliance with Adequate Public Facilities and Annual Growth Policy Requirements.

(a) After the Council has adopted a resolution under Section 14-6, one or more owners of land located in the proposed district may submit an application for provisional adequate public facilities approval, covering the entire proposed district, to the Planning Board. The application must:

(1) explain how each development located in the proposed district will comply with all applicable zoning and subdivision requirements, including any action necessary under Section 50-35(k);

(2) identify any infrastructure improvement necessary to satisfy the Growth Policy's adequate public facilities requirements for a development district; and

(3) estimate the cost to provide each such improvement.

(b) Within 180 days after receiving an application under subsection (a) and all information needed to review that application, the Board must jointly review for compliance with Section 50-35(k) and the Growth Policy all developments located in the proposed district as if they were one development. The Board may extend the deadline in this subsection for another 90 days, by notifying each applicant and the Executive and Council, if delays beyond the Board's control require more time to conduct the required review. The Council at any time may waive any applicable deadline under this Section if the public interest so requires. In its review, the Board must apply all otherwise applicable standards and procedures. The Board may conditionally approve an application if it finds that the proposed district will meet all requirements under Section 50-35(k) and any added requirements which apply to a district under the Growth Policy. The Board may condition its approval on, among other things, the creation and funding of the district and the building of no more than the maximum number of housing units and the maximum nonresidential space listed in the petition filed under Section 14-6 or any later amendment to the petition.

(c) In the aggregate, the applications approved must commit the applicants to produce (through the funding of the proposed development district or otherwise) the infrastructure improvements needed to meet the applicants' adequate public facility requirements in the proposed district and any added requirements which apply to an applicant under the Growth Policy. In its approval, the Board must list those infrastructure improvements.

(d) An applicant may withdraw a development from a district before the district is created under Section 14-9(c). An applicant must not withdraw a development after the district is created. If an applicant withdraws a development before the district is created, the applicant's provisional adequate public facility approval is cancelled. If any withdrawal would significantly impair the ability of the proposed district to finance the required infrastructure improvements, the Planning Board may modify or cancel any approval under subsection (b) and may attach new conditions to any previous approval.

(e) (1) After a development district is created and the financing of all required infrastructure improvements is arranged, any development located in the district has for all purposes satisfied:

(A) the adequate public facility requirements of Section 50-35(k);

(B) any added requirements which apply to a district under the Growth Policy; and

(C) any other requirement to provide infrastructure improvements which the County adopts within 12 years after the district is created.

(2) This subsection does not relieve any taxpayer from paying a generally applicable County tax, assessment, fee, or charge.

(f) The County may reserve for its own use or transfer to other owners through regular development approval processes, or as otherwise provided by law, any additional public facility capacity attributable to improvements financed by the district which exceeds the capacity required for developments in the district. (1994 L.M.C., ch. 12, § 1; 2004 L.M.C., ch. 2, § 2; 2008 L.M.C., ch. 34, § 1.)

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(c) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not indicate that the previous version of a provision amended by Section 1 of this Act should be interpreted differently from the same provision as amended by Section 1 of this Act.

(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Sec. 14-8. Executive Fiscal Report.

(a) After the Planning Board has acted under Section 14-7(b) and within 180 days after the Executive has received all information necessary to review the application, the Executive, after consulting the Superintendent of Schools with respect to school facilities and the Washington Suburban Sanitary Commission with respect to water and sewer facilities, must submit a report estimating:

(1) the cost of each infrastructure improvement listed by the Planning Board under Section 14-7(c) or recommended by the Executive under subsection (b); and

(2) (A) the amount of revenue needed annually to finance all infrastructure improvements funded, fully or partly, by a district; and

(B) the rate for each tax, assessment, fee, or charge available to the district that would produce the necessary revenue.

The Executive should compare these estimates to those submitted by the applicants under Section 14-7(a). The Executive may extend the 180-day deadline in this subsection for another 90 days, by notifying the Council, if delays beyond the Executive's control require more time to produce the required report. The Council at any time may waive any applicable deadline under this subsection if the public interest so requires.

(b) In this report the Executive should also recommend whether to create a district, its boundaries if one is created, whether any subdistricts should be created in the district and, if so, their boundaries, which infrastructure improvements the district should fully or partly fund, and alternative financing or revenue-raising measures. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

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(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Sec. 14-9. Second Council Resolution.

(a) The Council must hold a public hearing on the final resolution to create a development district not earlier than 45 days after the Planning Board has acted on all applications filed under Section 14-7 for that district.

(b) (1) The Council must give notice of the hearing by:

(A) advertisement in at least two newspapers of general circulation in the County at least 21 days before the hearing; and

(B) first-class mail to the record owner of each property located in the proposed district at the address shown on the most recent tax assessment records available 30 days before the hearing from the State Department of Assessments and Taxation or any successor agency. The Council must retain sufficient proof that each required notice was mailed. However, the failure of any property owner to receive notice by mail does not invalidate the adoption of a resolution under this Section or any later action by the Council or Executive.

(2) Each notice mailed under this subsection must include:

(A) a copy of the proposed resolution to create a district; and

(B) an estimated rate for any tax, assessment, fee, or charge proposed to fund infrastructure improvements for the district, or, if the estimated rate cannot reasonably be determined, a description of how the rate will be set.

(c) If the Council intends to use special obligation debt to finance the district, and the district was initiated by the Council under subsection 14-6(b), before the Council adopts a resolution under this Section the Council must receive a petition to create a development district signed by at least 80 percent of the owners of real property and the owners of at least 80 percent in value of the real property, as shown on the latest tax assessment records available from the State Department of Assessments and Taxation or any successor agency, located in the proposed district.

(d) If the district to be approved under this Section would extend beyond the specified geographic area approved under Section 14-6(c), before the Council adopts a resolution under this Section the Council must also receive a petition to create the district signed by at least 80 percent of the owners of the real property and the owners of at least 80 percent in value of the real property located in the area added to the district, as shown on the latest tax assessment records available from the State Department of Assessments and Taxation or any successor agency.

(e) After the public hearing, the Council by resolution approved by the Executive may create a development district. If the Executive disapproves a resolution within 10 days after it is adopted and the Council readopts it by a vote of six Councilmembers, or if the Executive does not act within 10 days after the Council adopts it, the resolution takes effect.

(f) A resolution adopted under this Section must:

(1) define the development district by specifying its boundaries and listing the tax account number of each property in the district;

(2) list each infrastructure improvement that will be financed by the development district, the estimated completion date and cost of that improvement, and the share of that cost which the County or another government agency will pay;

(3) create, and specify the amount or percentage of, a contingency account for unexpected cost overruns; and

(4) create a special fund for the development district.

(g) A resolution adopted under this Section may also require that a building permit must not be issued for any listed development (or part of a development) in the district until the earlier of:

(1) the date a specific infrastructure improvement begins construction; or

(2) a specific date.

(h) An infrastructure improvement financed by a development district may include any infrastructure required by the Planning Board as a condition of project, preliminary, or site plan approval.

(i) A district may finance an infrastructure improvement which primarily serves residents or occupants of only one development or subdivision only if:

(1) the improvement also provides added transportation capacity, enhanced public services, or other significant public benefits to residents or occupants of one or more other developments or subdivisions; or

(2) (A) either the Planning Board or the Executive recommends that the district finance that improvement; and

(B) the Council concludes that the public interest justifies the district financing that improvement.

(j) The Council may amend a resolution adopted under this Section after giving notice as required by subsection (b), including notice by mail to each property owner in the district. If the Executive disapproves an amended resolution within 10 days after it is adopted and the Council readopts it by a vote of 6 Councilmembers, or if the Executive does not act within 10 days after the Council adopts it, the amended resolution takes effect.

(k) A resolution adopted under this Section may create one or more subdistricts in a development district if the petition to create the development district filed under Section 14-6 was signed by at least 80 percent of the owners of real property and the owners of at least 80 percent in value of the real property located in the proposed subdistrict. All special taxes,

assessments, fees, or charges levied on the properties located in any subdistrict must be dedicated to a subaccount of the special fund and used to fund the construction of specified infrastructure improvements in or which benefit the district. If any subdistrict is created, the resolution adopted under this Section must:

(1) specify the boundaries of each subdistrict;

(2) list the tax account number of each property in the subdistrict;

(3) list the amount of each infrastructure improvement to be financed by special taxes, assessments, fees, or charges applicable in the subdistrict; and

(4) create designated subaccounts in the special fund.

(l) The adoption of a resolution under this Section does not:

(1) obligate the County to finance any infrastructure improvement or levy any tax, assessment, fee, or charge in the development district; or

(2) confer any contract, property or other right on any person. (1994 L.M.C., ch. 12, § 1; 1996 L.M.C., ch. 1, § 1; 2008 L.M.C., ch. 34, § 1.)

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(b) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not alter or affect any Council resolution adopted, or other action taken with respect to a development district, before this Act takes effect.

(c) Any amendment to County Code Chapter 14 made in Section 1 of this Act does not indicate that the previous version of a provision amended by Section 1 of this Act should be interpreted differently from the same provision as amended by Section 1 of this Act.

(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Article III. Financing a Development District.

Sec. 14-10. Special Taxes and Assessments.

(a) A resolution adopted under Section 14-9 must also authorize the imposition of a special assessment, special tax, fee, or charge, or any combination of them, in the development district at a rate designed to provide adequate revenues to:

(1) pay the principal of, interest on, and redemption premium, if any, on the bonds;

(2) replenish any debt service reserve fund;

(3) pay the cost of any approved infrastructure improvement, or reimburse the County for the cost of any approved infrastructure improvement paid from other County funds;

(4) pay directly the cost of any approved infrastructure improvement built or funded other than by the County; and

(5) pay the administrative expenses of the development district.

The resolution may reserve the Council's authority to adjust any rate schedule.

(b) The resolution must provide, except when clearly inconsistent with state law, that:

(1) any property which is fully developed before the development district is created is exempt from any special assessment, special tax, fee, or charge imposed under this Chapter; and

(2) the owner of any property exempt from payment under paragraph (1) which is later developed more intensively and benefits from any development capacity attributable to infrastructure improvements financed by the district must pay any tax, fee, or charge that it would have otherwise paid under this Chapter.

Under paragraph (1), "fully developed" property does not include any property developed after the Council adopted a resolution under Section 14-6 by any property owner who signed a petition under subsection 14-6(a) or that owner's successor in interest, and any such property is not exempt from any special assessment, special tax, fee, or charge imposed under this Chapter.

(c) A special assessment or special tax must:

(1) be levied and collected in the same manner, for the same period or periods, and with the same date or dates of finality as otherwise provided by law; and

(2) end when all bonds issued for the district have been paid in full and the County has been fully paid for each infrastructure improvement built or funded by the County.

(d) The special assessments, special taxes, fees, or charges authorized under subsection (a) must be payable as otherwise provided by law or (if state and County law are silent) as provided in the resolution adopted under Section 14-9. Any special assessment, special tax, fee, or charge

must not be levied until each infrastructure improvement to be financed or refinanced has been approved in the County capital improvements program.

(e) The resolution may establish procedures for the prepayment of any special tax, special assessment, fee, or charge levied in the district. The resolution also must, subject to modification by a resolution adopted under Section 14-13:

(1) specify (to the extent not already controlled by state or County law) the basis of and any exemptions from any special assessment, special tax, fee, or charge;

(2) set a maximum special assessment, special tax, fee, or charge applicable to each individual property in the district; and

(3) prohibit any increase in, or extension of the term of, the maximum special assessment, special tax, fee, or charge applicable to any individual property because of any delinquency or default by any other taxpayer.

(f) (1) A taxpayer who did not sign a petition under Section 14-6(a), and that taxpayer's successor in interest, may defer any special ad valorem tax on real property imposed to support that debt until the Planning Board approves a plan of subdivision or resubdivision for that taxpayer's property, or, if no subdivision plan is necessary, until the first building permit is issued for any building on the affected property.

(2) The Director of Finance and the taxpayer may agree on a payment schedule.

(3) The taxpayer must pay interest on any deferred tax at the rate set by law for unpaid real property taxes during each year that taxes are deferred. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

*Editor's note—2008 L.M.C., ch. 34, took effect on January 26, 2009.

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(d) Any notice or disclosure requirement in Section 14-17, as amended by Section 1 of this Act, applies to any sale contract signed, and any sales material or advertisement for sale disseminated, after this Act takes effect in any development district created, and in any proposed development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Sec. 14-11. Special Fund.

(a) The resolution creating a special fund under Section 14-9 must:

(1) pledge to the special fund the proceeds of any special assessment, special tax, fee, or charge levied under Section 14-10; and

(2) require that proceeds from any special tax, special assessment, fee, or charge be paid into the special fund.

(b) When any bonds authorized by this Chapter with respect to a development district are outstanding, the County has not been reimbursed for the cost of any infrastructure improvement funded or reimbursed by the County, or the cost of any infrastructure improvement to be paid by the County directly from special assessments or special taxes have not been paid, funds in the special fund must be used in any fiscal year to pay the principal of, interest on, and redemption premium, if any, on the bonds, to pay or reimburse the County for infrastructure improvements, to pay administrative expenses, and to replenish any debt service reserve fund established with respect to the bonds.

(c) After the bonds authorized by this Chapter with respect to a development district are fully paid, the County has been reimbursed for the cost of any infrastructure improvement funded or reimbursed by the County, and the cost of any infrastructure improvement to be paid by the County directly from special assessments or special taxes has been paid, further special assessments, special taxes, fees, or charges must not be levied and the district terminates by operation of law. If the Council so determines, any balance in the special fund must be paid to the general fund of the County. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

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Article IV. Issuing Debt.

Sec. 14-12. Bonds-Payment, Sinking Funds, Reserve Funds, Pledges and Other Financial Guaranties, Proceeds.

(a) If the resolution adopted under Section 14-13 so provides, the Executive must take all necessary actions to issue bonds under this Chapter, subject to the usual and customary requirements and procedures for issuance of special district bonds.

(b) Bonds must be payable from the special fund required under Section 14-11 and any other assets or revenues of the district pledged toward their payment.

(c) If the resolution adopted under Section 14-9(c) provides for the issuance of bonds, the resolution may authorize the Executive to:

(1) establish sinking funds and debt service reserve funds;

(2) pledge other assets in and revenues from the district towards the payment of the principal and interest; or

(3) arrange for insurance or any other financial guaranty of the bonds.

(d) All proceeds received from any bonds issued must be applied solely towards:

(1) costs of the infrastructure improvements listed in the resolution adopted under Section 14-9(f)(2);

(2) costs of issuing bonds; and

(3) payment of the principal and interest on loans, money advances, or indebtedness incurred by the County for any purpose stated in this Chapter. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

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Sec. 14-13. Resolution; Investment of Special Fund or Sinking Fund; Tax Exemption.

(a) In order to issue bonds, the Council must adopt a resolution that:

(1) describes the infrastructure improvements to be financed and states that the County has complied with the procedures in this Chapter;

(2) specifies the maximum principal amount of bonds to be issued;

(3) covenants to levy special taxes, special assessments, or both, at a rate and amount sufficient in each year when any bonds are outstanding to:

(A) provide for the payment of the principal of and interest on the bonds, and the redemption premium, if any, on the bonds;

(B) replenish any debt service reserve fund established with respect to the bonds; and

(C) enforce the collection of all special assessments and special taxes as provided in Section 52-36, et seq., of the County Code and Section 14-808, et seq., of the Tax Property Article of the Maryland Code, or other applicable law; and

(4) specifies (to the extent not already controlled by state or County law) the basis of any special assessment, special tax, fee, or charge in a development district, and any exemptions from a special assessment or special tax subject to any change in law that does not materially impair the district's ability to pay principal and interest and maintain adequate debt service reserves;

(5) declares that:

(A) the construction of the infrastructure improvements financed by the bonds:

(i) creates a public benefit, and special benefits, if applicable, to the properties assessed in the development district; and

(ii) serves a public purpose; and

(B) the projected special assessment, special tax, fee, or charge revenue will be sufficient to retire the bonds, taking into account the value of land in the district; and

(6) (A) prohibits acceleration of assessments or taxes because of any bond default;

(B) sets a maximum special assessment, special tax, fee, or charge applicable to each individual property in a development district; and

(C) prohibits any increase in, or extension of the term of, the maximum special assessment, special tax, fee, or charge applicable to any individual property because of any delinquency or default by any other taxpayer.

(b) To the extent not otherwise required by state law, the resolution may specify, or may authorize the Executive by executive order to specify as needed:

(1) the actual principal amount of the bonds to be issued;

(2) the actual rate or rates of interest for the bonds;

(3) how and on what terms the bonds must be sold;

(4) how, when, and where interest on the bonds must be paid;

(5) when the bonds may be executed, issued, and delivered;

(6) the form and tenor of the bonds, and the denominations in which the bonds may be issued;

(7) how, when, and where the principal of the bonds must be paid within the limits in this Section;

(8) how any or all of the bonds may be called for redemption before their stated maturity dates; or

(9) any other provision not inconsistent with law that is necessary or desirable to finance an infrastructure improvement.

(c) The special fund and any sinking fund or reserve fund established by the County to provide for the payment of the principal of or interest on any bonds issued by the County under

this Chapter may be invested by the County fiscal officer having custody of the fund in the manner prescribed under Article 95, Section 22 of the Maryland Code. Any fiscal officer having custody of the proceeds of the sale of any such bonds may invest the proceeds, pending their expenditure, as prescribed under Article 95, Section 22.

(d) To the extent provided in State law, the principal amount of the bonds, the interest payable on the bonds, their transfer, and any income derived from the transfer, including any profit made in the sale or transfer of the bonds, must be exempt from County taxation of any kind.

(e) The adoption of a resolution under this Section does not:

(1) obligate the County to issue bonds; or

(2) confer any contract, property, or other right on any person. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

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Sec. 14-14. Form, terms and conditions of bonds.

(a) Any bond may be in bearer form or in coupon form or may be registrable as to principal alone or as to both principal and interest. Each bond is a security as defined in Section 8-102 of the Commercial Law Article of the Maryland Code, whether or not it is either one of a class or series or by its terms is divisible into a class or series of instruments.

(b) Each bond must be signed manually or in facsimile by the County Executive, and the seal of the County must be affixed to the bonds and attested by the Clerk of the Council. If any officer whose signature or countersignature appears on the coupons ceases to hold that office before the bonds are delivered, the officer's signature or countersignature is nevertheless valid and sufficient for all purposes as if the officer had remained in office until delivery.

(c) Each bond must mature not later than 30 years after issuance.

(d) All bonds must be sold in the manner, either at public or private sale, and upon the terms as the County Executive directs. Any contract to acquire property may provide that payment must be made in bonds. Any bond issued under this Chapter is not subject to Article 31, Sections 10 and 11 of the Maryland Code. (1994 L.M.C., ch. 12, § 1; 2006 L.M.C., ch. 33, § 1.)

Sec. 14-15. Credit of County not Pledged.

(a) Any bond issued under this Chapter is not an indebtedness of the County within the meaning of Section 312 of the Charter.

(b) Any bond issued under this Chapter must not pledge the full faith and credit of the County and must state that the full faith and credit of the County is not pledged to pay its principal, interest, or premium, if any. (1994 L.M.C., ch. 12, § 1.)

Article V. Miscellaneous Provisions.

Sec. 14-16. Administration of district; Termination.

(a) The Executive must administer each district, prepare bond issues, collect taxes and revenues, and oversee construction of infrastructure improvements. Chapter 11B does not apply to:

(1) financing, acquiring, or building any infrastructure improvement under this Chapter; or

(2) retaining consultants or other professional services in connection with financing any infrastructure improvement or administering any development district.

(b) Construction of each infrastructure improvement listed in the resolution creating a district must begin promptly when bond proceeds or other funds are available unless:

(1) the approved Capital Improvements Program provides otherwise; or

(2) the improvement is being or has already been built.

(c) (1) The County may contract with the Revenue Authority or another public agency or a private party, including any owner of property in a development district, to construct or reimburse the cost of any infrastructure improvement when significant cost or time savings have resulted or are likely to result. In a contract under this subsection, the County may reimburse the cost of an infrastructure improvement as it is being built or after construction is complete.

(2) However, any reimbursement of construction costs under this subsection must not exceed the lowest of:

(A) the unencumbered appropriation available for that item;

(B) the actual construction cost of the item; or

(C) a fair and reasonable price developed under a cost/price analysis method used by the Office of Procurement.

(d) If the County has not issued any bonds for a district created under this Chapter, or if all bonds issued to finance a district have been repaid, the County has been reimbursed for the cost of any infrastructure improvement funded or reimbursed by the County, and the cost of any infrastructure improvement to be paid by the County directly from special assessments or special taxes has been paid, the Council may terminate the district by resolution approved by the Executive. If the Executive disapproves a resolution within 10 days after it is adopted and the Council readopts it by a vote of 6 Councilmembers, or if the Executive does not act within 10 days after the Council adopts it, the resolution takes effect. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

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development district for which the Council adopted a resolution under Section 14-6, after January 1, 2001.

Sec. 14-17. Disclosure; notices.

(a) A seller of real property located in a development district or proposed development district (as defined in subsection (f) must disclose to any buyer during the life of any development district created under this Chapter:

(1) the amount of any special assessment, special tax, fee, or charge which the buyer must pay; or

(2) if that amount cannot readily be determined, a method of calculating the amount in sufficient detail to enable the buyer to estimate the maximum amount the buyer will pay currently and during the life of the district.

This disclosure must be made in any sale or lot reservation contract.

(b) The seller of any property located in a development district or proposed development district (as defined in subsection (f)) must specify in any advertisement, sales brochure, sign, or other sales material that the seller creates or authorizes, that:

(1) the property is or would be located in a development district; and

(2) any potential buyer should ask the seller about the additional taxes and other charges for which a property owner in the district may be liable.

Each sales office and model home in a new housing development located in a development district or proposed development district (as defined in subsection (f)) must prominently display at least one sign that contains the information required under this subsection. The information required under this subsection need not be included in a printed advertisement that is smaller than 16 square inches, or on the initial screen of an internet listing as long as the information appears elsewhere on that listing.

(c) A notice in a contract of sale or similar document which prominently contains the heading "Notice of Special Tax or Assessment" and substantially conforms to the following text complies with subsection (a):

Each year the buyer of this property must pay a special assessment or special tax imposed under Chapter 14 of the Montgomery County Code, in addition to all other taxes and assessments that are due. As of (date of this contract), the special assessment or special tax on this property amounts to or will not exceed (dollar amount in arabic numbers) each year. As of (date of each scheduled or expected increase), the assessment or tax is scheduled to increase to (amount of

each scheduled or expected increase). For further information on this assessment or tax, the buyer can contact the County Department of Finance at (current telephone number).

If an increase in any special assessment, special tax, fee, or charge is likely to occur in the forseeable future but the timing or amount of the increase is not certain when the contract is signed, the notice must also expressly disclose that fact.

(d) Promptly after the Council adopts a resolution under Section 14-9, the Director of Finance must record among the land records of the County at the cost of the development district a declaration encumbering all real property located in the district and designating that property as subject to a development district. The declaration must terminate when the Director records a release stating that all bonds are fully repaid, the County has been reimbursed for the cost of any infrastructure improvement funded or reimbursed by the County, the cost of any infrastructure improvement to be paid by the County directly from special assessments or special taxes has been paid, and all other obligations of the County relating to the district have been satisfied. While the declaration is in effect, each deed to any real property located in the district must contain a notice that:

(1) the property is located in a development district; and

(2) a declaration filed in the County land records encumbers the property.

(e) The Director of Finance must indicate on the real estate tax bill for each property in a development district the amount of any special assessment or special tax imposed on the property.

(f) Any notice or other information that this Section requires a seller to provide for a property located in a development district must also be provided if a development district has not been created but the property is located in an area proposed to be included in a development district by a petition filed under Section 14-6.

(g) Any contract which does not disclose all information required by this Section is voidable at the option of the buyer before the date of settlement.

(h) In addition to any other applicable remedy or penalty, any person who does not comply with this Section is liable for any damages sustained by a buyer or potential buyer because of that person's failure to provide any required notice or information. However, a seller or the seller's agent is not liable for an incorrect estimate of the amount of any tax, assessment, fee, or charge disclosed under this Section if the seller relied in good faith on a method approved or recommended by the County to estimate that amount.

(i) The Office of Consumer Protection must enforce this Section as if it were part of Chapter 11. (1994 L.M.C., ch. 12, § 1; 2008 L.M.C., ch. 34, § 1.)

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Sec. 14-18. Construction of Chapter.

(a) This Chapter is necessary for the welfare of the County and its residents and must be liberally construed to achieve the purposes stated in Section 14-2.

(b) The powers granted under this Chapter supplement any power conferred by any other law and do not restrict any other power of County government. (1994 L.M.C., ch. 12, § 1.)

June 4 Amendment to May 7, 2009 Memorandum, per Planning Board

ATTACHMENT D: TAX INCREMENT FINANCING (TIF)

Introduction

In a TIF, property tax revenues derived from the increase in assessed val¬ues due to appreciation and/or new development are used to pay off bonds issued for improvements in the TIF District. At the time the TIF District is created, a baseline of revenues is established. Some or all of the revenue above that baseline accrues to the TIF District and is applied to the debt payments.

Purpose of TIF

In the absence of government participation in the development or redevelopment of urban areas, real estate developers and investors are more willing to invest in simpler, "Green field" sites. In "Green field" sites land costs are generally lower, redevelopment requires less land assemblage, public facility capacity is less encumbered by existing development, and infrastructure investments are less likely to involve expensive retrofits.

Under certain circumstances, TIF can serve as an effective tool for jurisdic¬tions seeking to fund redevelopment of targeted geographic areas, espe¬cially those that contain "Brownfield" or "Grayfield" sites. As such, state and local officials in jurisdictions around the nation recognize that TIF can be a valuable tool in suburban transit-oriented development (TOD) projects as a way of meeting the high costs of retrofitting aging or obsolete suburban infrastructure.

TIF in Maryland

The Maryland Tax Increment Financing Act authorizes most Maryland coun¬ties and municipalities to use TIF for the purposes of financing certain develop¬ment/redevelopment projects. See Title 12, Subtitle 2 of the Economic Development Article of the Maryland Code, Sections 12-201 through 12-213.

In Maryland, authorized local governments may issue TIF bonds for the purpose of financing development or infrastructure to support development. The first step in that process requires the government to create a TIF District and a special fund. The TIF bonds issued are then payable from the special fund which holds the incre¬mental tax payments associated with the TIF District.

TIF Financing Terms

TIF bonds are unsecured, revenue bonds. In their purest form, they are backed by a projection of the District's tax revenues. The full faith and credit of a jurisdiction is not necessarily at risk when a TIF bond is issued. As such, TIF bonds are riskier than general obligation bonds. When underwriters feel that the risk associated with using TIF is too high, then any of a number of conceptually similar financing tools may be more appropriate.

Recent TIF Districts in Maryland have been "backed" by Special Assessment districts. In these cases, a Special Assessment District is created that has the same boundaries as the TIF District. In the event that the TIF District does not meet projected revenues, property owners within the TIF District are assessed a share of the shortfall.

In order to reduce risk, bond placement agencies often prefer to see TIF Districts that are large and diverse, thereby reducing the risk of default. Larger districts raise questions as to why the TIF District is so large as to include areas that receive little benefit from the new development.

Smaller and more narrowly drawn TIF Districts usually require higher debt coverage ratios (i.e. a lower percentage of net operating income can be used for debt payment because the small TIF district is perceived to be riskier). For example, a project that will generate an annual tax increment of $1 million might have a large TIF District boundary and a debt coverage ratio of 1.25 (i.e. $800,000 available each year for principal and interest); the same project with a more narrowly drawn TIF District boundary might have a debt coverage ratio of 1.67 (i.e. $600,000 available each year for principal and interest).

Appendix 6: Transportation

For more information, contact Dan Hardy at danhardy@mncppc-mc.org

As presented to the Planning Board on February 12, 2009

Contents

Figures

1. Purpose

The Public Hearing Draft of the White Flint Sector Plan proposes a conversion of the White Flint Metrorail station area from an auto-oriented suburbia to a transit-oriented, mixed-use, urban community. This Appendix provides the technical basis and details for the Plan's transportation system recommendations.

The Plan reflects approximately two years of stakeholder coordination and staff analysis. It proposes innovative changes designed to promote the orderly implementation of a transit-oriented and sustainable urban center for North Bethesda, including:

- expanding the White Flint Metro Station Policy Area to reflect transit-oriented policies within walking distance of the White Flint Metrorail station.
- accepting congestion levels that reflect the Planning staff's and Planning Board's approach to adequacy
- an implementation plan that relies on combination of public entities and financing mechanisms to finance transportation system improvements through proportional participation by all developments, and a staging plan to coordinate area wide transportation system implementation in lieu of assigning piecemeal transportation exaction requirements to individual development applications.

Since the early 1980s, the balance between land use and transportation system recommendations in master and sector plans has applied the procedures and general policies contained in the County's Growth Policy. The current Growth Policy applies an area wide measure of mobility, called Policy Area Mobility Review, and a localized measure of congestion called Local Area Transportation Review. These measures, used to define adequacy for development review cases, are adapted for master plan analysis by applying the Department's TRAVEL/3 regional travel demand model and Local Area Model as described in detail in Chapter 3 of this Appendix.

The land use and transportation systems are balanced to promote end-state development that provides density needed to facilitate redevelopment of White Flint from a largely auto-oriented community to a transit-oriented community. The transportation system needed to accommodate these development levels must achieve a 39 percent non-auto driver mode share (NADMS) for White Flint employees, an objective that can be met through:

- improved transit access, including a second Metrorail station entrance, a new MARC station, bus-priority treatments along Rockville Pike, and improved transit circulator services
- implementing a robust local street network with prevailing block lengths of 350 feet or less that promotes walking and bicycling
- managing the long-term parking supply through zoning requirements and incentives to provide publicly accessible parking
- continuing proactive travel demand management services through the North Bethesda Transportation Center (NBTC).

Establishing this balance between land use and transportation required an iterative review of alternative land use and transportation concepts, as described in this Appendix, which documents:

- the balance between long-term land use and transportation systems needed to provide sufficient mobility the urbanizing White Flint Sector Plan area and surrounding communities, using appropriate evaluation tools and measures of effectiveness
- the staging, implementation, and monitoring mechanisms that manage details of land use and transportation implementation over two to three decades as the Plan is implemented.

The Appendix covers three areas:

- Chapter 2 describes the recommendations at a greater level of detail than described in the Plan.
- Chapter 3 demonstrates that the Plan's end-state conditions will result in an appropriate balance between land use and transportation.

- Chapter 4 describes alternative land use and transportation system recommendations that were considered but ultimately not included in the Plan.

The Appendix was initially developed in January 2009 to describe the Public Hearing Draft Plan recommendations. The maps, tables, and text descriptions in the Appendix remain useful as a supplement to the July 2009 Planning Board Draft Plan to document the considerations made by the Planning Board during spring 2009. In certain cases, therefore, the July 2009 Appendix retains the materials contained in the January 2009 version, but with *explanatory text describing the Planning Board Draft Plan changes noted in italics*.

2. Transportation Plan Recommendations

The *White Flint Sector Plan* recommends a multimodal transportation system that leverages the prior public investment in the Metrorail system to create a transit-oriented community of walkable blocks with transportation options for residents, employees, and visitors.

Figure 1 shows the range of transportation system strategies examined in the Plan, including:

- travel demand management
- transit services
- local street network
- transportation system policies.

Figure 1 was used in public presentations during summer 2007 and indicated the likelihood that the Plan would incorporate the different strategies based on analyses and coordination performed to date. The cells shaded in light blue indicated those with high potential to meet the Plan's goals. In general, those strategies with high potential were incorporated into the Plan. Strategies with low potential not incorporated in the Plan are described in Chapter 4.

Figure 1: Transportation Management Strategies

White Flint Sector Plan
Potential Transportation Strategies

	Strategy	Opportunities	Constraints	Potential
Demand Management	Reduce SOV mode share	Flexible, low capital cost	Operational costs, monitoring	High
	Increase parking charges	Reduce traffic, provide revenue	PLD establishment, garage locations	Moderate
Transit Services	Metrorail Station North Entrance	Adds capacity, reduces walk access times	Capital cost	High
	Shuttle services	Low capital cost	Operating cost	High
	New MARC station	Capture long-distance riders	Coordination with CSX, Garrett Park	Moderate
	Re-orient North Bethesda Transitway	Direct connection to Rock Spring Park activity center	Capital cost, particularly relative to current planned transitway	Low
	Add light rail to MD 355	High capacity service for moderate length trips	Right-of-way needs, capital cost/funding, competition with Metrorail	Low
Local street network	Add local "midblock" streets	Provide alternate routes, reduce walking distances	Capital cost, definition of final alignment and implementation responsibilities	High
	Left turn prohibitions	Reduce congestion	Circuitous trips (cars and buses), public acceptance	Moderate
	Add turn lanes	Reduce congestion	Increased pedestrian crossing distances, capital cost	High (for selected uses)
	Grade separated interchanges	Reduce congestion	Capital cost, attractiveness, public acceptance	Moderate (for selected uses)
	One-way streets	Reduce congestion, improve pedestrian crossing	Circuitous trips (cars and buses), public acceptance	Moderate
	Roundabouts	Urban design	Operations, right-of-way	Moderate
	Reversible lanes	Address peak period congestion	Attractiveness, pedestrian crossing lengths, public acceptance	Low
	New CSX track crossing	Provide alternate routes, Reduce walking distances	Capital cost, right-of-way	Low
Policies	Accept higher congestion levels	Consistent with urbanizing area, no capital cost	Operating costs, public acceptance as part of quality of life	Moderate
	Increase residential land use proportion	Addresses housing shortages, lower trip generation rates, 24-hour activity center	Economic feasibility	Moderate
	Staging Plan	Provide services at time of development	None	High

A. Travel Demand Management

Travel Demand Management (TDM) describes a range of programs and services designed to reduce the use of single-occupant vehicle trips. TDM strategies provide travel options that reduce and spread demand by travel destination, mode, route, and time of day to most efficiently use transportation system infrastructure and resources. TDM strategies can be implemented by the public and private sectors.

TDM strategies include:

- infrastructure such as high quality pedestrian environments, bus or HOV facilities or preferential treatments, telework centers, commuter information stores, car-sharing (i.e., Zipcar) and bike-sharing stations, and well-located transit stations or stops with real-time transit information
- services such as transit services, vanpools, ride-matching, guaranteed ride home services, alternative commute option information (i.e., NBTC and the MWCOG Commuter Connections)

- policies that affect infrastructure and service use, including parking supply management, preferential parking treatments for carpools/vanpools, transit subsidies, flexible work schedules, tax incentives, congestion pricing, and distance-based or VMT pricing.

Montgomery County Travel Demand Management Applications

Current TDM strategies include programs and services undertaken by the private and public sectors. The County's Office of Legislative Oversight has summarized the existing TDM activities in their December 2008 Report 2009-6, titled *Transportation Demand Management Implementation, Funding, and Governance*.

Private sector contributions include requirements of Planning Board conditions determined at the time of subdivision, often through a Traffic Mitigation Agreement (TMAg) to either provide a specified set of services or to achieve a specific performance objective. Traffic Mitigation Agreements are described in the Planning Board's Local Area Transportation Review/Policy Area Mobility Review (LATR/PAMR) Guidelines.

The 1991 development of the Nuclear Regulatory Commission site is an example of a private sector contribution with a specified set of services that included a parking reduction agreement and a TMAg. The parking reduction agreement continues to have a permanent effect on limiting employee parking by encouraging alternative modes of travel. The TMAg included providing the free White Flint Shuttle service from 1991 through 2004.

The subdivision approval of the North Bethesda Town Center (LCOR) site is an example of a private sector contribution with a specified performance measure. Under the growth policy's Alternative Review Procedure for Metro Station Policy Areas, the LCOR approval is conditioned on a payment of twice the applicable transportation impact tax and a monitoring program to reduce peak hour vehicle trips by 50 percent of that otherwise attributable to the development.

Public sector contributions include the activities of the area TMD. The North Bethesda TMD is operated by the Transportation Action Partnership (TAP) as the North Bethesda Transportation Center (NBTC). NBTC was formed in 1995 to provide services to employers and employees in the North Bethesda's commercial areas to promote employers' commuter benefits programs and to inform employees of alternative commuting options. NBTC now provides services to office and multifamily residential properties. The NBTC also works to improve transit service in the area, to increase ridership, and to provide transit-friendly amenities.

In 2002, County Council Bill 32-02 linked public and private sector TDM programs by requiring employers with more than 25 employees in one of the County's four TMDs to implement a Traffic Management Plan (TMP), participate in an annual commuter survey, and submit an annual report of TMP activities.

Figure 2: Travel Demand Management Techniques and Target Markets

Table 7-11. Sample TDM Techniques With Potential to Reduce Site Traffic Generation

Technique[a]	Types of Trips Affected					
	Office	Retail	Industrial	Residential	Lodging	Event
Physical Actions						
Parking availability reduced below normal demand level or substantial increase in parking costs	T, P	-	T, P	T, P	T, P	T, P
Quality pedestrian environment on-site (mixed-use developments only)	T, P, M	T, P, M	T, M	T, P, M	T, P, M	T, P, M
Building amenities (bicycle lockers, showers, ATM, parking garage dimensions to accommodate vanpools, wiring for ease of telework)	T, P, M	-	T, P, M	T, P, M	-	-
Non-Physical Actions						
Transit service to areas of trip origins	T, P	T, PM	T, P	T, P	T, P	T, P
Carpool, vanpool programs (ridematching, preferential parking, subsidies, promotion)	T, P	T, PM	T, P	T, P	-	T, P
Modified work schedules (4/40, staggered, flex)	P	-	P	P	-	-
Telecommute options	T, P	-	-	T, P	-	-
Internal shuttle transportation to/within development site	T, M	T, M	-	T, M	T, P	-
Transit subsidy	T, P	-	T, P	T, P	-	-
On-site transportation coordinator or information center	T, P	T, P	T, P	T, P	T, P	T, P

T = daily trips, P = peak hour trips, PM = p.m. peak hour trips, M = midday trips.
[a]Other techniques may be applicable either separately or in combination with others. To be effective, each measure must be designed to generate and sustain use of alternatives to the single-occupant automobile.

Target TDM Markets

TDM strategies can be customized by target market and consider the type of land use (i.e., residential, commercial, or special event) and time of day (i.e., peak period, midday, or all day). Figure 2, from the Institute of Transportation Engineers Transportation Impact Analyses for Site Development proposed Recommended Practice, summarizes the TDM techniques commonly applied to reduce vehicle traffic generation by their target market and trip reduction focus.

Many TDM techniques are effective in reducing auto travel at all times of day, others are specifically targeted toward peak period conditions. The draft Plan recommends a continued focus on weekday peak period modal shifts to optimize transportation system performance when congestion is greatest.

As the County begins to consider the climate change and energy requirements identified in the 2009 Climate Protection Plan, the emphasis of travel demand management will shift from managing traffic congestion to also reducing greenhouse gas emissions. The two objectives (peak period mobility versus daily or annual carbon footprint) are often, but not always, in synch. Shifting travel modes from auto to walking or biking will serve both objectives and TDM policies should encourage this shift as the highest priority. On the other hand, shifting an auto trip from the peak period to the off-peak period will serve the historic TDM objective of managing peak period performance, but has a smaller effect on greenhouse gas emissions (the difference

between travel speeds and emissions during peak and off-peak periods).

The Plan focuses its TDM strategies on commuters who work in the Plan area for three reasons.

- Recurring vehicular travel demand is most constrained by traffic leaving the Plan area during the evening peak period.
- The location and market of the proposed multifamily, high rise housing provide high levels of transit use without the application of external TDM actions.
- TDM strategies at the workplace are often more effective than those applied in residential communities, due to economies of scale and the fact that the employer/employee relationship can be more productively applied than the residential owner/tenant relationship.

The staging plan for White Flint recommends that mode share and transportation system performance be monitored every two years to track planned progress in targeted modal shifts and a reduction in per-unit vehicle trip generation rates. The implementation plan relies on a strong link between public and private TDM efforts, similar to that achieved in the Bethesda CBD staging plan, so that the responsibility for success of the Plan's trip reduction efforts are distributed across all area owners and tenants.

White Flint Employees

The Plan recommends retaining the 39 percent non-auto driver mode share (NADMS) goal from the 1994 *North Bethesda/Garrett Park Master Plan*. The NADMS measures the percentage of travelers who drive to a workplace in White Flint as opposed to taking other modes.

The Local Area Modeling performed for the Plan analysis presumed that the 39 percent NADMS would be achieved for all commercial employees within those portions of the North Bethesda TMD north of I-270. For monitoring purposes, the NADMS has been defined as:

- employees who normally arrive at their workplace in White Flint during the busiest two hours of the morning peak period from 7:00 a.m. to 9:00 a.m.
- auto drivers include those in single-occupant vehicles (SOV) and those driving carpools and vanpools
- non-auto drivers include transit riders, carpool/vanpool passengers, walkers, bicyclists, as well as those who have a workplace in White Flint but telecommute on the day of surveys.

The 1992 Plan identified one possible set of sub-mode share outcomes for ridesharing (21 percent), transit use (16 percent), and walking/biking (two percent) that would achieve the 39 percent NADMS mode share. The draft Plan does not develop specific sub-modal shares, as travel trends and technologies evolve over time. The 2005 surveyed mode share breakdown in White Flint includes a higher amount of transit use (20 percent) but a lower amount of ridesharing (four percent) and walking/biking (two percent), reflecting the fact that the White Flint area is better served by transit but farther from I-270 HOV lanes than the Rock Spring Park portion of the North Bethesda TMD.

Current estimates of the buildout sub-modal shares incorporate telecommuting technologies (about two percent on a typical weekday), and a significant increase in the amount of walking/biking (about six percent) due to the fact that higher levels of housing in the Plan area will increase the number of White Flint employees who also live in the community. Transit mode shares should also increase (to about 26 percent), while ridesharing is estimated to remain a fairly small component (about five percent).

White Flint Residents

The 1992 Plan identified a 70 percent auto-driver goal for the journey-to-work for North Bethesda residents. The 2005 Census Update Survey noted that this goal has very nearly been achieved, with a 72 percent auto-driver mode share for residents throughout the North Bethesda/Garrett Park planning area, considering the mix of single-family and multi-family units throughout the area. Dwelling units in the Plan area will be predominantly high rise units, and the 2005 Census Update Survey indicates that the auto-driver mode share for the journey to work from high-rise residential units North Bethesda is 58 percent, better than the 1992 Plan goal.

Roadway congestion in White Flint is influenced most heavily by commercial activities rather than residential activities. The Plan recommends a mixed-use CR zone that encourages a higher mix of residential development, with an end-state goal of 60 percent residential development as measured by floor area. The residential traffic would only become critical to congestion levels if the total end-state floor area of residential development exceeds 80 percent of total development, a ratio that staff does not view as practical given market conditions.

B. Transit System

The Plan recommends expanding all three transit modes serving White Flint: Metrorail, MARC, and local bus service.

Metrorail

The Plan recommends developing a new northern entrance to the station in the southeast quadrant of the Rockville Pike/Old Georgetown Road intersection to both:

- minimize circuitous travel for pedestrians whose local destinations are north of the station
- reduce pedestrian delays by dispersing demand for station elements such as fare gates and escalators.

Staff estimates that the White Flint Metrorail station will require 10 bus bays for Metrobus and Ride On bus loading, based on an extrapolation of transit system needs and the local transit service concept described below. Continued coordination with the North Bethesda Town Center development will be needed to establish bus bay locations within the LCOR site and along the reconstructed Rockville Pike.

MARC

The 1992 North Bethesda/Garrett Park Master Plan recommends a new MARC station at Montrose Crossing (at the northern end of Nebel Street Extended). The White Flint Sector Plan recommends relocating this new MARC station into the Plan area. Two potential sites were identified (see Figure 3). The northern site is at the Montouri property at the east end of Old Georgetown Road and the southern site at the Nicholson Court properties south of the Nicholson Lane/CSX overpass. Staff estimates that the MARC station access will require two bus bays for Ride On and shuttle services, and approximately 10 kiss-and-ride spaces.

The Nicholson Court site is recommended for the MARC station because of the high potential for transit-oriented redevelopment on both sides of the CSX tracks with underdeveloped light-industrial and low-density commercial uses that are predominantly covered by surface parking and include owners with active redevelopment interests. The primary advantage of the Montouri site was that it maximizes the total potential development within walking distance to the MARC station, as the land use plan focuses development toward the Metrorail station.

The expansion of MARC transit services to Montgomery County communities along the Red Line requires extensive coordination with both the Maryland Transit Administration (MTA) and the CSX Corporation. CSX owns the tracks used by the MTA and their primary transportation objective is the efficient movement of freight. The MTA provides commuter rail services and their primary transportation objective for the MARC Brunswick line is efficient service for long-distance commuters between job centers in both Washington and Baltimore and distant residential communities.

The MTA's 2007 MARC Growth and Investment Plan identifies planned system expansion Statewide through the year 2035, including planned improvements along the Brunswick Line (see Figure 4).

The Planning Board discussed this plan with the MTA in worksessions on March 27 and July 24, 2008. The MTA plan does not include a station in North Bethesda, or at Shady Grove, although one is recommended in the 2006 Shady Grove Sector Plan. The MTA plan does include an "Outer Montgomery Station," a third track along portions of the line, a new parking garage at the Germantown station, and parking expansion at Metropolitan Grove, Rockville, and Kensington. Further coordination with MTA is needed to align State MARC station goals with local land use plans.

Both MTA and M-NCPPC are interested in expanding MARC services to include midday, weekend, and off-peak direction service.

Figure 3: Metrorail and MARC Station Locations

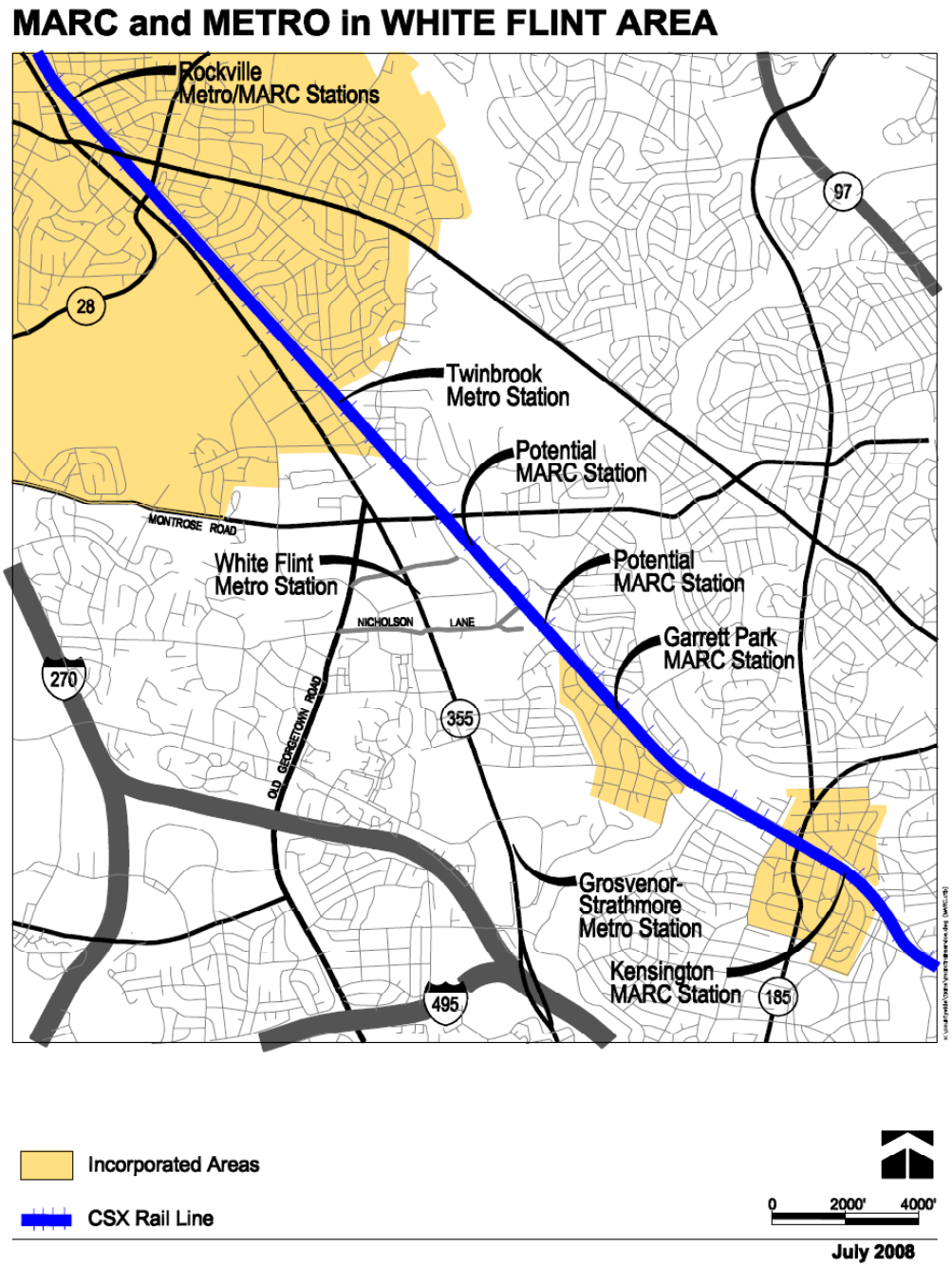
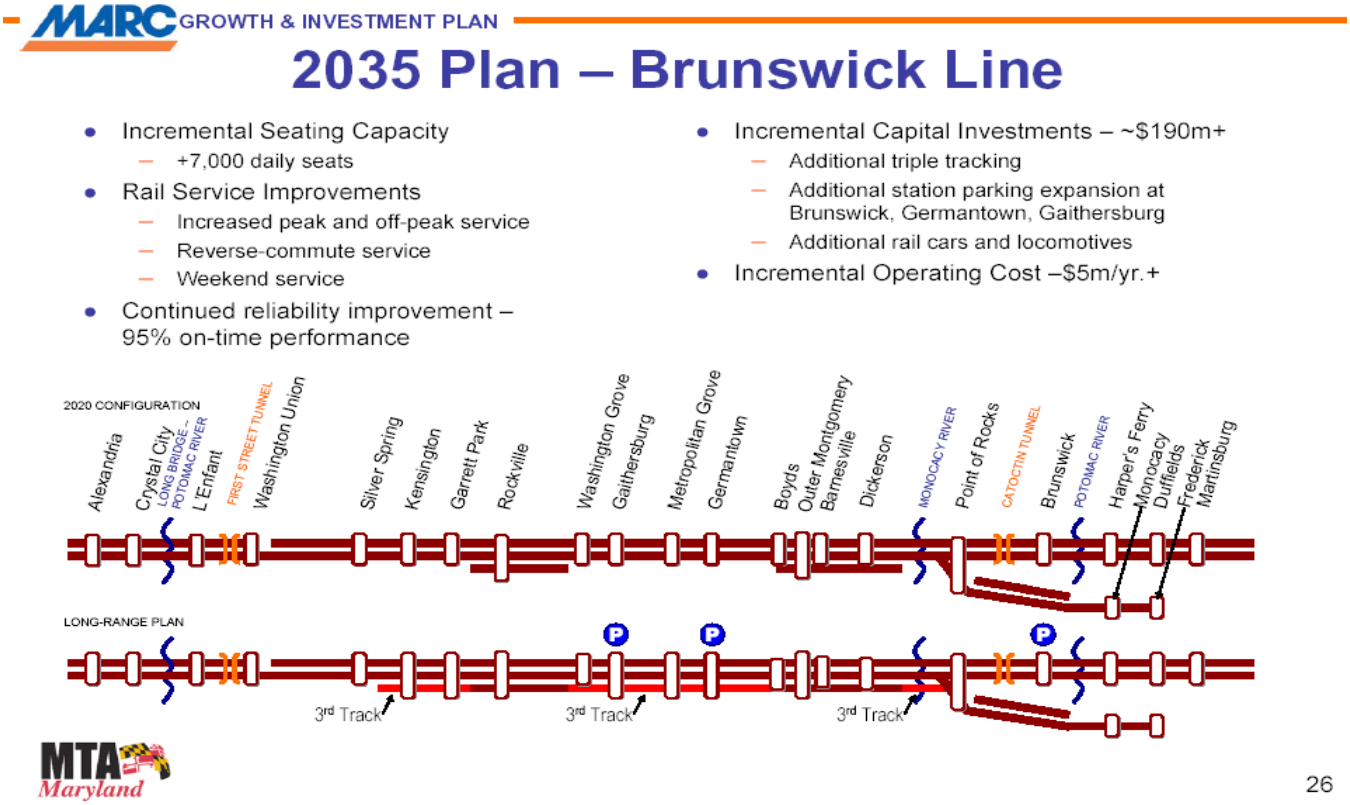


Figure 4: MARC Brunswick Line Plan



The MTA conducted an initial assessment in summer 2008 and found that neither the Montouri nor the Nicholson Court property was more feasible, but that either site would disrupt service at the Garrett Park MARC station (which is already limited to skip-stop services), potentially requiring station closure.

Adding a MARC station is expected to improve the transit market for long-distance commuters to White Flint by providing a one-seat ride from Frederick County and points west (rather than requiring a transfer from MARC to Metrorail at Rockville). The White Flint market would also benefit from the more direct rail connection to Union Station.

Local Bus Transit Service

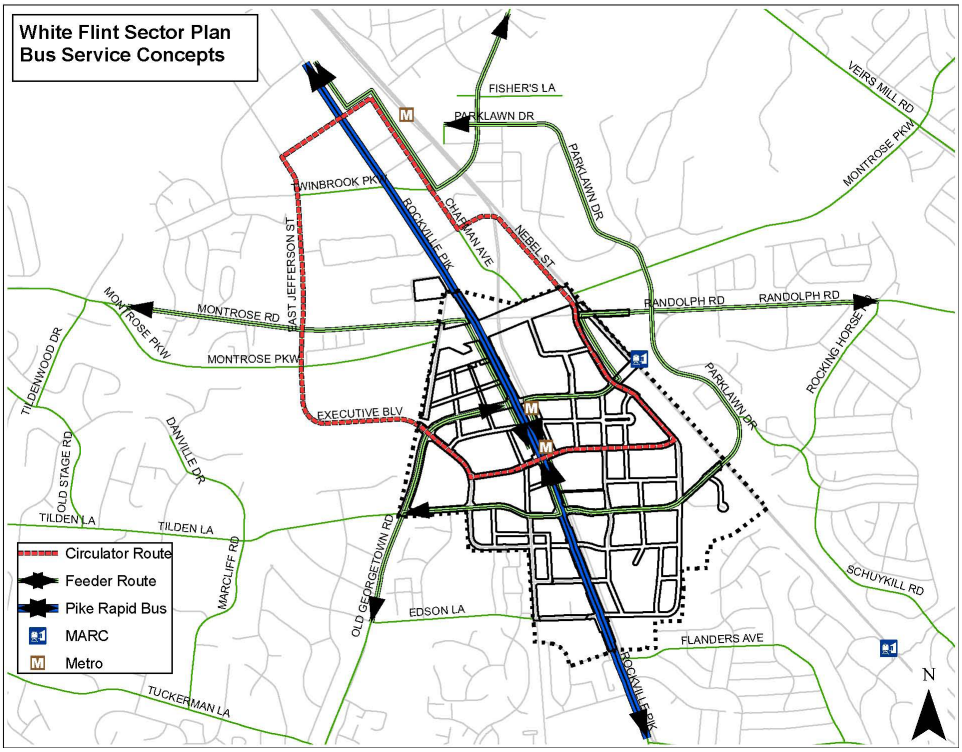
Local bus transit services need to be developed and augmented over time to support the line-haul services provided by the Metrorail and MARC rail transit systems. These local bus transit services will be integral to achieving the planned 39 percent NADMS.

Bus services are operational elements requiring greater flexibility than explicitly recommended in long-range master plans. The Plan recommendations for improved bus service are limited to providing sufficient intermodal transfer spaces at the Metrorail and MARC stations and preserving right-of-way for bus priority treatments along Rockville Pike.

Local bus service, however, should include three distinct elements, shown conceptually in Figure 5:

- feeder services to Metrorail
- circulator services throughout the North Bethesda commercial core
- shuttle services along Rockville Pike.

Figure 5: Public Hearing Draft Plan Transit Service Concept



The current bus transit system (described in greater detail in Chapter 3), including Metrobus, Ride On, and private shuttle services, focuses primarily on feeder and circulator service. Routes 10, 38, and 45 provide **feeder services** to Metrorail from residential communities. For the purpose of Metrorail feeder services, the Twinbrook and White Flint Metrorail stations are equally valuable destinations in the North Bethesda commercial core.

Future feeder services should have the following characteristics.

- Service area coverage within three miles of the Metrorail stations served.
- Peak period headways of 20 minutes or less.
- Primary service along arterial roadways such as Nicholson Lane, Twinbrook Parkway, Montrose Road, and Randolph Road, with scheduled speeds of 12-13 miles per hour.

Currently, Ride On routes such as 5 and 26 provide **circulator services** throughout the North Bethesda commercial core area, linking land uses in North Bethesda to both the White Flint and Twinbrook Metrorail stations.

A future circulator route could have the following characteristics.

- High frequency during peak commuting and lunch periods with headways of 10 minutes or less.
- Coverage area within 1.25 miles of either White Flint or Twinbrook Metrorail stations with stops at both stations.This service profile would likely require six buses.

Currently, Ride On Route 46 provides **shuttle services** along Rockville Pike, connecting the Medical Center, Grosvenor, White Flint, Twinbrook, Rockville, and Shady Grove Metrorail stations.

A future shuttle service along Rockville Pike could have the following characteristics.

- High frequency during peak periods with headways of 15 minutes or less.
- Skip-stop or overlay of local service to maintain schedule speed of 15 miles per hour.

As White Flint develops into an urban area, all three types of bus serve will need to expand to not only feed Metro but also to serve the more varied land uses and population in White Flint. Routing and scheduling for feeder services will need to consider local land uses in North Bethesda as well as the fastest routes to Metrorail. The County Council has approved funding for a County wide Bus Rapid Transit (BRT) study to begin in FY10 that will consider improved services and facilities along Rockville Pike and the Randolph Road/Montrose Road corridor. The Plan recommendations are designed to promote flexible and seamless connections beyond the Plan area.

The Plan's land use recommendations and design guidelines will facilitate good feeder, circulator, and Pike rapid bus services. Prior efforts to establish shuttle services in White Flint, such as the free White Flint Shuttle established through the White Flint Commuter Service Center, have not yet been sustainable, in part due to the challenges of connecting auto-oriented development with local transit services. As densities increase in White Flint guided by zoning requirements and design guidelines requiring street-oriented buildings, the number of potential transit riders and the attractiveness of transit will increase.

C. Street Network

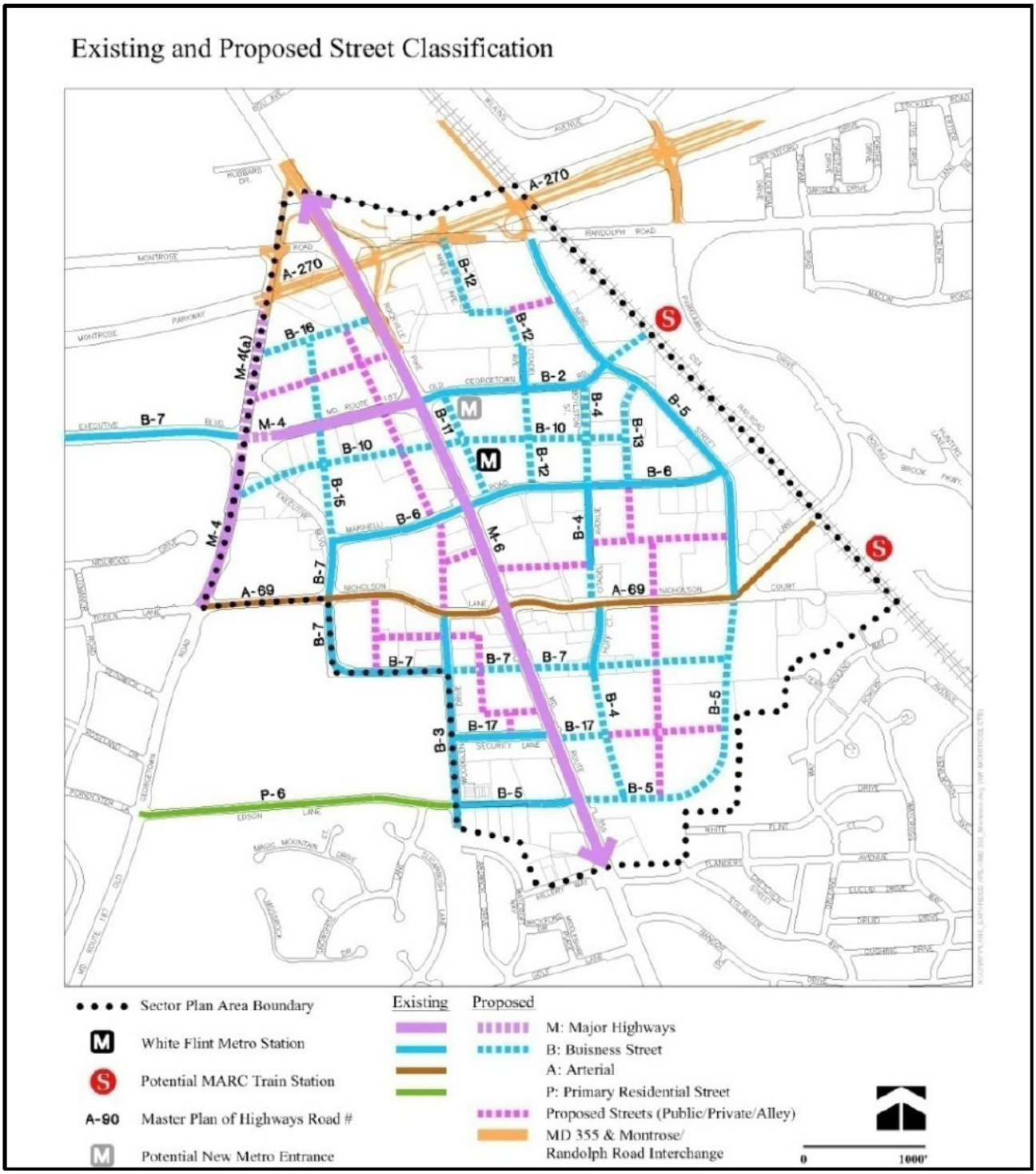
Figure 6 presents the Public Hearing Draft Plan's proposed street network featuring the following elements.

- A network of business district streets (shown as blue lines) designed to reflect the County Road Code emphasis on multimodal access and stormwater management. The Plan's recommendation and their implementation gives special attention to new street connections in the White Flint Mall and Mid-Pike Plaza/Metro West districts.
- A secondary network of conceptual business district streets (shown as fuschia lines) that will provide internal site accessibility focused on enhancing pedestrian connectivity by reducing block size. These streets also provide opportunities to establish shared streets that emphasize public realm objectives beyond transportation. Some of these streets and alleys may, like Ellsworth Avenue in Silver Spring, be privately owned and operated and therefore may not conform to County design standards. These streets are therefore not included in the street and highway table in the Plan that identifies street functions, travel lanes, and rights-of-way.

Specific streets described in the Plan and this Appendix include:

- a reconstructed, pedestrian-friendly Rockville Pike that will incorporate Bus Rapid Transit treatments
- a reconstruction of Old Georgetown Road (MD 187) and Executive Boulevard to facilitate north-south traffic movement along the Plan's western boundary (rather than the existing pattern directing MD 187 traffic to MD 355 at the Metrorail Station)
- a Town Center area focused around a new east-west Main Street (B-10)
- networks of local streets within the White Flint Mall, Mid-Pike Plaza, and Metro West districts.

Figure 6: Public Hearing Draft Plan Street Network



Master Planned Business Streets

The *White Flint Sector Plan's* primary street network includes major highways, arterials, and master-planned business streets. These streets are required elements of the Plan and associated development and should be built to County design standards to accommodate both regional (for major highways and arterials) and local (for business streets) travel needs.

Section 49-31 of the County Code defines the functional classification system for roadways, including:

- A Major Highway is a road meant nearly exclusively for through movement of vehicles at a moderate speed. Access must be primarily from grade-separated interchanges and at-grade intersections with public roads, although driveway access is acceptable in urban and denser suburban settings.
- An Arterial is a road meant primarily for through movement of vehicles at a moderate speed, although some access to abutting property is expected.
- A Business District Street is a road meant for circulation in commercial and mixed-use zones.
- A Primary Residential Street is a road meant primarily for circulation in residential zones, although some through traffic is expected.

The Plan proceeded in tandem with the development of the County's Road Code (Chapter 49) in 2006 and design standards (Executive Regulation 31-08) in 2007 and 2008. Executive Regulation 31-08 stresses the need to develop context-sensitive solutions with street designs that reflect and emphasize the planned adjacent land uses. The design guidance recognizes that a continuum exists across the County's rural, suburban, and urban areas.

The Plan proposes that White Flint become a more urban, with Floor Area Ratios (FAR) of 2.5 to 4.0 throughout the Plan area. The future White Flint street network will both appear and function more like those in Bethesda and Silver Spring do today, with narrower lanes, a wider landscaped pedestrian realm, and buildings that have activated streetfront uses adjacent to the sidewalk all contributing to a more pedestrian-friendly environment. The land uses, roadway design, and street-level activity all convey the message that slower vehicle speeds are appropriate. The business street system is intended to be a slow-speed environment, with both the public and private realms designed for a 25 mile per hour target speed.

Montrose Parkway is the exception to the 25 mile-per-hour target speed with an arterial function serving more than the Plan area.

The I-270 Corridor is job-intensive, and both Rock Creek and the CSX tracks are barriers between the jobs in the I-270 Corridor and the housing-rich communities of Olney, Aspen Hill and Kensington/Wheaton. High-quality auto and transit connections across these barriers are limited to a few routes:

- Montrose Parkway
- Norbeck Road/Gude Drive
- Intercounty Connector

The target speed for Montrose Parkway is set at 35 miles per hour, recognizing that this facility will pass through a heavily developed commercial area, but that primary access to the adjacent land uses will not be to and from Montrose Parkway.

Secondary Grid of Local Streets and Alleys

The Plan describes a secondary system of streets and alleys that will be developed to complement the master planned business street system. The secondary grid will facilitate site access (particularly for the larger development sites), improve the permeability of the network for pedestrian and bicyclists, and provide flexibility for private street treatments such as festival streets, shared streets, and streets located above underground parking structures. Notable elements include:

- extending Woodglen Drive north from Nicholson Lane to the Mid-Pike Plaza district as a service road parallel to Rockville Pike
- developing a grid of streets in the NRC district. Due to security concerns and space constraints, the proposed east-west connection between Rockville Pike and Citadel Avenue would likely be limited to a 20-foot wide alley for non-motorized vehicles only; this is the only Plan-recommended street for which vehicular access is not anticipated

- developing a street grid serving White Flint Mall implemented when the mall structure is redeveloped. *The Planning Board Draft Plan does not show an alignment of streets affecting the mall structure*.

The secondary grid is not an explicit element of the master planned street network but it is needed to make pedestrian connections. Short block lengths (a maximum of 350 feet) should be considered an element of master plan consistency in the site plan review process.

MD 355/Rockville Pike

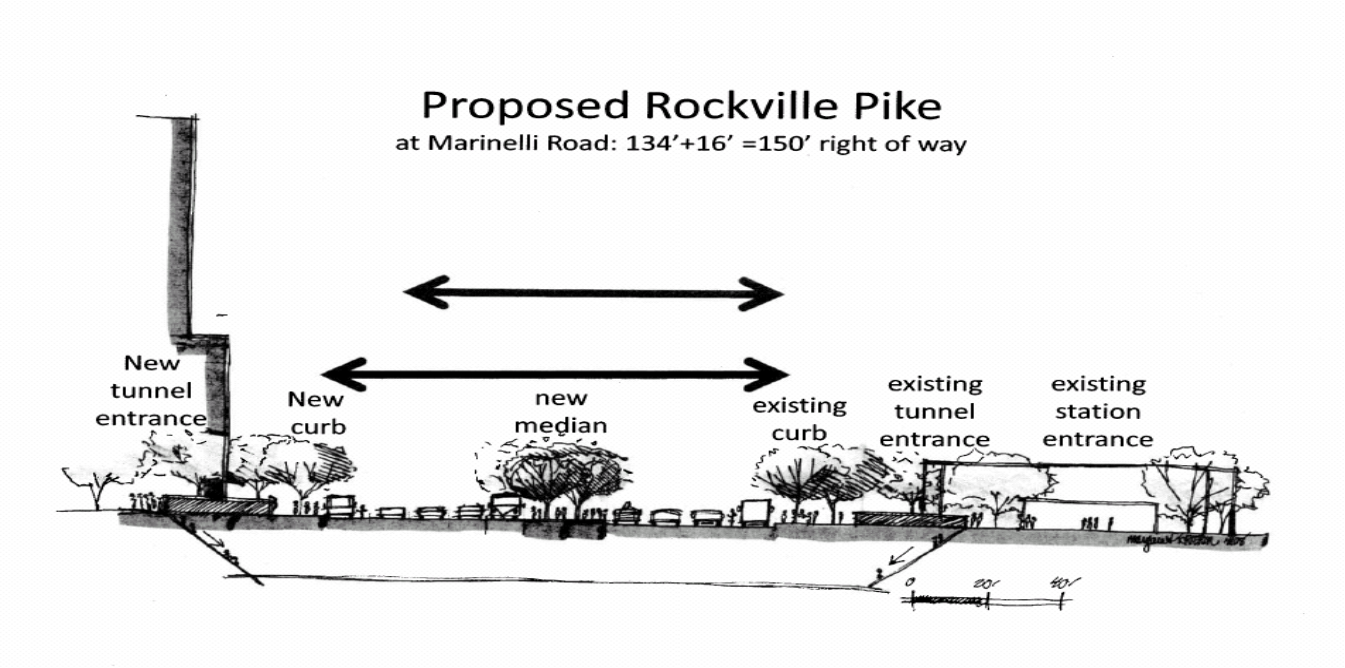
The Plan proposes reconstructing Rockville Pike to improve pedestrian access and comfort, increase pervious area, and facilitate transit priority treatments.

Figures 7 and 8 show the boulevard concept for the Pike, including:

- maintaining three continuous through travel lanes
- expanding the median with space for separate left turn lanes, landscaping, and pedestrian refuge
- developing a curb lane for bus-priority treatment and bicycle use during peak periods with the potential for off-peak period parking to serve adjacent uses.

Figure 7: Rockville Pike Boulevard Concept

Figure 8: Rockville Pike Section at Marinelli Road



The plan for the Pike recognizes that expansion on the east side is constrained by the Metrorail Red Line tunnel and NRC's security requirements. The Plan recommends a 150-foot wide right-of-way for the Pike that would require 75 feet of dedication a westerly realigning the roadway centerline to the west may be needed to accomplish the Plan goals; such a realignment that held the roadway eastern curb line constant would result in right-of-way needs along the roadway's western edge.

The Plan recommends two new local street crossings of Rockville Pike at full-movement, signalized intersections: Main Street (B-10) and Executive Boulevard Extended (B-7). The Plan also recommends converting driveway access points into full-movement signalized intersections at Mid-Pike Plaza (B-16), the Security Lane entrance to White Flint Mall (B-17), and Nebel Street Extended (B-5). These full-movement crossings will improve vehicle and pedestrian access across Rockville Pike.

Maryland State Highway Administration (SHA) staff has participated in both *White Flint Sector Plan* meetings and the *Rockville Pike Corridor Master Plan* being developed by the City of Rockville. Both plans envision a reconstruction of Rockville Pike, although with slightly different typical sections (the City is contemplating retaining the current narrow median and implementing continuous service roadways in a multi-way boulevard concept). The Montrose Parkway interchange, currently under construction, provides a logical pivot point from which the two different typical sections might be developed so there is no need to develop a single, consistent section for the two plan efforts.

The SHA would need to lead the development and evaluation of any substantial reconstruction of Rockville Pike in White Flint, including the proposed boulevard concept shown in Figure 7. This development and evaluation process would begin with a project planning study that considers the boulevard concept and possible modifications.

The process continues with Preliminary Engineering, which requires including the reconstruction proposal in the County's priority list to the State delegation.

Together, the project planning and preliminary engineering processes typically require three to five years for a project of this type, assuming that it remains a County priority. The Public Hearing Draft Plan recommended establishing a White Flint Redevelopment Implementation Authority, in part to infuse the property owner and community stakeholder interests into the County's priority setting process giving independent funding sponsors priority. Based on continuing coordination with Executive Branch departments, the Planning Board Draft Plan

recommends against an independent implementation authority, but retains the concept of a series of public entities such as a redevelopment office and a financing mechanism to coordinate the implementation of the transportation system improvements.

The White Flint Partnership, a consortium of Plan area property owners and representatives, proposed an alternative concept for Rockville Pike in spring 2009.The alternatives development and implementation process was discussed at worksession #8 on April 30 and an interagency technical working group meeting on May 18. The Planning Board Draft Plan reflects the Planning Board's subsequent decisions for Rockville Pike discussed at worksession #11 on June 4.The Plan recommends a 150-foot wide right-of-way for Rockville Pike based on the current roadway centerline. The Plan also recommends preserving the slightly wider right-of-way in the White Flint Partnership alternative, pending completion of the County's BRT study in FY10.The Partnership proposal includes a typical cross-section of 162 feet that shifts the Rockville Pike centerline up to six feet. (see Sheets 1 and 2).

Old Georgetown Road and Executive Boulevard Realignment

The Plan recommends realigning Old Georgetown Road and Executive Boulevard to form a more regular street grid, thereby increasing redevelopment potential by creating more efficient block shapes. Three related roadway system improvements are needed to straighten and realign the roadway grid in this area:

- abandoning existing Executive Boulevard between Old Georgetown Road and Marinelli Road
- establishing a new alignment for a north-south business street (B-15) from the Executive Boulevard/ Marinelli Road intersection extending north into the Mid-Pike Plaza development
- establishing a new alignment for an east-west business street (B-10 or Main Street) from Rockville Pike to Old Georgetown Road.

This realignment also facilitates traffic movement along Old Georgetown Road from I-270 toward the Montrose Parkway and points north and east. Currently, this traffic follows Old Georgetown Road to meet Rockville Pike in the center of the Plan area.

This connection would carry approximately 28,000 vehicles per day along "Old" Old Georgetown Road between Executive Boulevard and Montrose Parkway. Without this connection, this traffic would either be directed toward Rockville Pike (increasing pressure to widen the Rockville Pike/Old Georgetown Road intersection at the northern Metrorail station entrance where pedestrian mobility needs are highest) or to cut through the Mid-Pike Plaza development on local street B-15.

Substantial coordination with Maryland SHA, property owners, and County agencies is needed to implement this improvement including:

- relocating SHA's current stormwater management project for the Montrose Parkway interchange at the southern end of the existing "Old" Old Georgetown Road cul-de-sac, in conjunction with roadway realignment and property redevelopment
- retaining the network of local streets to minimize disruption and confusion
- establishing a through route for MD 187; staff recommends that MD 187 be redesignated from the east-west portion of Old Georgetown Road (M-4) to the extension of "Old" Old Georgetown Road (M-4a).

Main Street (B-10) and Associated Promenade

The Plan recommends developing an east-west Main Street (B-10) in a 70-foot wide right-of-way connecting Old Georgetown Road at its west end with the North Bethesda Town Center street grid at its east end. LCOR development plans label this roadway as McGrath Boulevard to the east of Rockville Pike. To the west of Rockville Pike, a separate promenade treatment will be developed outside the roadway right-of-way on the south side as described in the Plan.

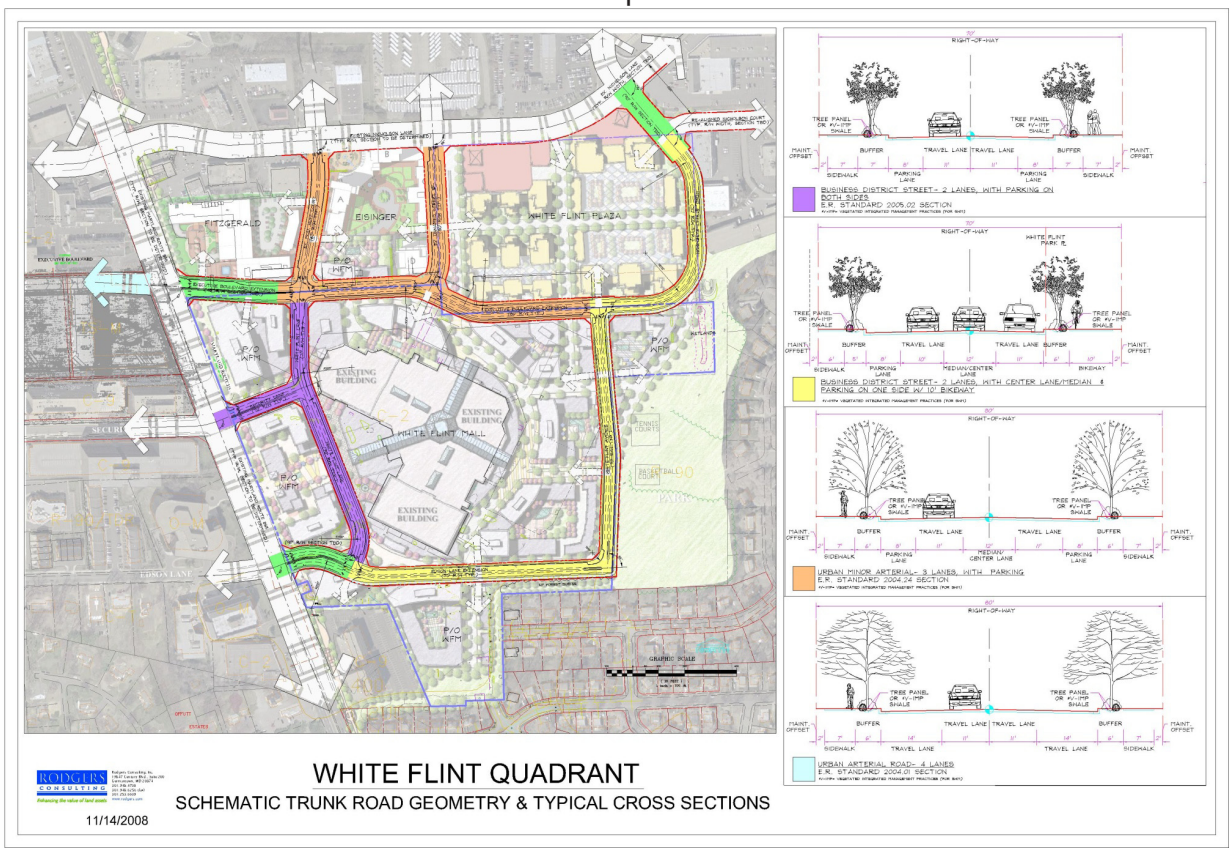
White Flint Mall District

The establishment of a roadway network in the White Flint Mall District exemplifies the need for both master plan guidance and property owner coordination. One of the Plan's explicit purposes is to develop details regarding the design and location of Executive Boulevard on the east side of Rockville Pike. Figure 9 shows a conceptual proposal for this street grid, which includes:

- establishing Executive Boulevard Extended eastward from Rockville Pike with appropriate shared access by confronting redevelopable properties
- establishing Nebel Street Extended as a compound roadway with two 90-degree turns. The northern 90-degree turn is at the junction with Executive Boulevard Extended in a standard T-intersection. The southern 90-degree turn in the southeast quadrant will need to be revised to incorporate a 150-foot centerline radius. The roadway right-of-way will need to be 80 feet wide to incorporate one travel lane in each direction, a center left turn lane for northbound traffic, and the recommended dual bikeway (bike lanes plus a shared-use path along the eastern side)
- relocating Nicholson Court at Nebel Street Extended to facilitate through movement along Nebel Street Extended and a 90-degree intersection configuration at Nicholson Lane.

The Planning Board Draft Plan reflects an amendment to the concept shown in Figure 9 so that the curve along Nebel Street Extended in the southeast quadrant is the minimum radius (150 feet) for a 25 mile per hour target speed per the discussion in worksession #8 on April 30.

Figure 9: White Flint Mall District Street Network Concept



Mid-Pike Plaza and Metro West Districts

The Plan recommends two key business streets (B-16 and B-17) to serve the Mid-Pike Plaza District and provide access to the major highways that form the District's boundaries: Rockville Pike (M-6) to the east, Old Georgetown Road (M-4) to the south, and "Old" Old Georgetown Road (M-4a) to the west.

The street system builds on the existing driveway access plans, with the business district streets B-16 and B-17 intersecting the existing state highways MD 355 and MD 187 at existing signalized intersections and the secondary streets intersecting the state highways where Mid-Pike plaza currently has driveway access. Further analysis will be required to establish more precise centerlines in coordination with the Metro West District. Staff met with property owners to facilitate private sector development of a coordinated concept for local streets.

D. Bicycle and Pedestrian System

The bicycle and pedestrian system recommendations for White Flint will be implemented through a combination of land use and zoning policies, local street network implementation, and pedestrian access and safety improvements.

Bikeway Network

The Public Hearing Draft Plan proposes a bikeway system with two key elements:

- an off-road, shared-use path system connecting White Flint to other areas of the County via the Montrose Parkway and North Bethesda Trolley Trail
- an emphasis on shared-road bikeways within the Plan area, considering the 25 mile-per-hour target speeds that facilitate shared space, rather than separated modal facilities and the Road Code emphasis on bike accommodation on all streets.

Off-road shared use paths and on-road bicycle accommodations serve different markets; most of the active bicyclist community is interested in quality on-road bike accommodation. The number of off-road paths in the Plan is therefore fairly minor; pedestrian facilities are recommended in promenades and heart-smart trails, but space for off-road shared use paths are limited to those connections needed to the regional recreational trail system.

The need for striped bicycle lanes on urban roadways is a matter of agency and staff judgment, and is one of the items still to be resolved in developing design standards to supplement the initial set adopted in Council Resolution 16-809.

In September 2007, the Planning Board supported the staff position on the Road Code that marked bike lanes should generally be provided as a matter of course on roads with daily traffic volumes of more than 20,000 vehicles per day or a posted speed of 45 miles per hour or greater. In the *White Flint Sector Plan*, the roadways are all recommended to have a target speed at 25 or 35 miles per hour. The state highways (MD 355, MD 187), Montrose Parkway, Nicholson Lane, and the northern portion of Nebel Street are the roadways with traffic volumes forecast higher than 20,000 vehicles per day.

The design for Rockville Pike will improve bicyclist accommodation by allowing bicycles to share the curb lane with transit vehicles during peak periods. Still, the traffic volumes and number of lanes will make on-road bike travel intimidating for a proportion of bike users.

Furthermore, the Plan contemplates off-peak period parking along portions of Rockville Pike, and marked bike lanes are incompatible with off-peak period parking. Therefore, the Plan recommends bicycle lanes along Nebel Street (and its southerly extension) to serve as a north-south bicycle arterial and an alternative to Rockville Pike. Nebel Street is a suitable location for bicycle lanes because it serves the eastern side of the Plan area where less intense land uses are expected and the number of cross street and driveway interruptions is relatively low.

In the east-west direction, the Plan recommends bike lanes along Old Georgetown Road and Nicholson Lane to connect to the planned system of bike lanes in the 2005 *Countywide Bikeways Functional Master Plan*.

Pedestrian and Bicyclist Access and Safety

The Plan recommends designating the area a Bicycle and Pedestrian Priority Area. Per the annotated Code of Maryland, this designation would facilitate targeting available State funds to areas with the greatest needs (Section 2-604) and implement plans that increase safety and access for bicycle and pedestrian traffic (Section 8-204).

Pedestrian and bicyclist access and safety in the *White Flint Sector Plan* area will be pursued further through several initiatives, including:

- design standards to implement the County's Road Code
- design guidelines for private sector development in the Plan area
- zoning requirements for bicycle parking and other amenities
- engineering, education, and enforcement programs under the County Executive's Pedestrian Safety Initiative.

In 2007, the County Council adopted several amendments to Chapter 49 of the County Code concerning streets and roads to improve pedestrian and bicycle accommodation, stormwater management, and context-sensitive design. In December 2008, the Council adopted Resolution 16-809, Context Sensitive Road Design Standards, which specify certain design standards and processes for implementing the revised road construction code, most notably the typical cross-section standards for many types of roads and streets, the required stormwater management criteria for capturing runoff within the right-of-way, and considerations for establishing target speeds and street tree placement. Continued effort is needed to complete the range of street design standards and intersection design standards that will be needed to promote pedestrian and bicyclist access and safety in new or reconstructed roadway design.

The Planning Board will adopt White Flint design guidelines that will guide the character of the pedestrian realm to improve access, comfort and safety, including:

- building orientation to maximize pedestrian accessibility
- street tree planting
- design treatments for sidewalks and driveways
- street lighting
- signing and marking.

The Plan proposes applying the CR Zone for much of the Plan area. This zone is designed to facilitate pedestrian access and safety through:

- pedestrian-oriented activity at street level with uses such as storefront retail and restaurants
- safety-oriented environmental design including clearly marked sidewalks and crosswalks
- street trees providing canopy and landscaping on all streets
- street furniture such as benches, trash receptacles, and planters
- continuous, direct, and convenient connections to transit stations for pedestrians and bicyclists.

As both public and private sector projects are implemented, all agencies need to elevate pedestrian and bicycle access and safety considerations in the review of design and operational elements, including:

- maximum curb radii of 30 feet
- signal timing, including pedestrian countdown signals that provide the ability to complete roadway crossing at a speed of 2.5 feet per second or slower, including at least five seconds of startup time (and greater where pedestrian volumes result in platooning)
- maximum crosswalk lengths of 60 feet between pedestrian refuges
- accessible bus stop locations at or near marked crosswalks
- signing and marking per the Manual on Uniform Traffic Control Devices, including marked crosswalks on

all approaches to signalized intersections and elimination of lane markings across intersections
- street lighting designed to improve the visibility of pedestrians at levels specified by the Illuminating Engineering Society of North America
- design of mixed-use streets and pedestrian walkways/alleys using Crime Prevention Through Environmental Design criteria.

E. Transportation System Policies

The Plan contains two policy recommendations that are independent of implementation and staging proposals: expansion of the Metro Station Policy Area (MSPA) boundary and establishment of a proactive system to manage the supply of long-term parking spaces.

White Flint Metro Station Policy Area Boundary

The Plan recommends that the boundaries of the White Flint Metro Station Policy Area (MSPA) be revised to be coterminous with the current Plan boundaries. The proposal to revise the MSPA boundaries to incorporate both the Mid-Pike Plaza and White Flint Mall properties predates the current Plan and was recommended on page 4 of the 2005 Growth Policy proposal presented to the County Council on November 1 of that year.

In summary, the proposal to revise the Growth Policy boundaries reflects the fact that most of the County's MSPA boundaries are located about one-half mile away from the Metrorail station and the White Flint MSPA boundaries should be similarly revised to promote transit-oriented development within walking distance of the Metrorail station. The recommended revision increases the number of intersections at which the 1800 CLV intersection congestion standard applies, as discussed in Chapter 3 of this Appendix.

Parking Management

The Public Hearing Draft Plan recommended establishing a Parking Lot District (PLD) to actively manage parking demand. This recommendation reflects an emphasis in applying parking management strategies to help effect a modal shift from private auto to transit and non-motorized travel.

From a private-sector perspective, parking management is enhanced through reduced parking requirements specified in the proposed CR Zone, including one space per residential unit (and 0.5 spaces per MPDU) and incorporation of the lower parking requirements in the southern area of the County (inside the Beltway).

Figure 10 shows that about 48,600 jobs in the Plan area are expected to result from the land use assumptions in the Plan's recommendations.

Figure 10: Weekday Long-Term Parking Space Demand

Commercial Land Use Type	Total Square Footage	Assumed Square Feet per Job	Number of Jobs	Demand for Weekday Long-Term Parking Spaces
Office	7.68m	225	34,100	20,800
Retail	3.80m	400	9,500	5,800
Industrial	0.93m	450	2,100	1,300
Other	1.45m	500	2,900	1,800
TOTAL	13.86m		48,600	29,700

With a Sector Plan NADMS goal of 39 percent, the 48,600 jobs translate to an expected approximately 29,700 employees that will need parking in the Plan area. On a typical weekday, slightly more than 10 percent of employees are absent (on leave or business away from the office). Parking garage design typically requires consideration of peak daily and seasonal accumulation factors of about 10 to 15 percent, recognizing that when parking capacity becomes constrained, vehicle-miles of travel (VMT) may actually begin to increase as motorists hunt for spaces.

The County currently has four parking lot districts in Silver Spring, Bethesda, Wheaton, and Montgomery Hills. These PLDs, whose establishment dates to the 1950s, leverage the value in County-owned land to spur economic development. In White Flint, there is not as much publicly owned land and the economic development needs are not as compelling. However, the need to efficiently manage parking supply and demand is of increasing importance throughout the County. Therefore, while the Public Hearing Draft Plan used the term parking lot district, the objective is to create a mechanism that will, in conjunction with public entities and financing mechanisms to manage implementation, manage the long-term commercial parking capacity for both public and private properties. During the Planning Board worksessions, the term "Parking Management Authority" was determined to be more appropriate.

Based on experience in the Bethesda and Silver Spring CBDs, staff estimates that even with a mature parking lot district, about 70 percent of the long-term parking spaces for commercial properties might be provided by the private sector. Therefore, approximately 9,000 parking spaces might ultimately need to be provided in publicly accessed garages. The most recently constructed or proposed public parking garages include above-ground garages in Downtown Silver Spring with about 1,500 spaces per garage and the proposed below-grade Lot 31 garage in Bethesda with 1,100 public spaces and 300 privately controlled spaces.

The Public Hearing Draft Plan identifies eight locations where public parking garages may be feasible, including:

- government-owned property such as the SHA land at the Montrose Parkway interchange and the County-owned Conference Center site
- land controlled by the Washington Metropolitan Area Transit Authority WMATA, both in the North Bethesda Town Center and at the adjacent bus maintenance facility to the south; and the Washington Suburban Sanitary Commission private sector redevelopment opportunities in the Mid-Pike Plaza and White Flint Mall Districts, where parking management opportunities may include private parking garages for general public use or condominium operational arrangements with the public sector.

The Planning Board Draft Plan recommends the consideration of a parking management authority as one of the public entities to implement the Plan, as well as a staging plan that measures progress toward limiting the total number of long-term public and private parking spaces to 0.61 spaces per employee.

F. Staging

The Plan recommends a staged implementation that requires the completion of certain transportation infrastructure within each stage and a progressive achievement toward the planned NADMS and long-term parking space requirements in stages generally proportional to the assumed land use growth.

The staging plan recommends a biennial monitoring program of the Plan area. This program would build on the reporting process for the North Bethesda Transportation Management District (TMD), which includes the following elements:

- employer-based surveys to establish the non-auto driver mode share
- traffic data collection during weekday peak periods to establish intersection levels of service using the CLV process.

Public interest in monitoring transportation conditions suggest that additional resources might be valuable to conduct additional monitoring studies, listed below in generally increasing levels of effort:

- measuring peak period, midday, and weekend traffic volumes along MD 355
- measuring peak period, midday, and weekend travel speeds along MD 355
- measuring peak period cordon line traffic volumes
- transportation network analysis using a delay-based simulation tool such as Synchro to reflect both area wide travel conditions and short-term (i.e., five-year) forecast conditions.

The Plan recommends using the non-auto driver mode share for determining staging success. Other performance measures such as cordon line volumes or travel speeds could be developed as a staging mechanism, providing that performance standards are defined and monitoring elements are funded through either the public sector or the proposed implementation entities.

G. Implementation

The Public Hearing Draft Plan proposed a White Flint Redevelopment Implementation Authority, an innovative implementation program designed to accomplish these objectives:

- ensure that the infrastructure required for the Plan is affordable and apportioned equitably among public and private stakeholders
- manage infrastructure prioritization and delivery to avoid “lumpy” infrastructure delivery typical of the development review exaction process.

Figure 11 summarizes the transportation infrastructure costs by Sector Plan stage and expected responsibility as of development of the Public Hearing Draft Plan in November 2008. The capital cost estimates reflect the following assumptions.

- State projects include the Montrose Parkway interchange and the extension of Montrose Parkway east to the CSX tracks (Phase II of the SHA project for Rockville Pike/Montrose Road interchange improvements). The $20 million estimated cost for the latter improvement is symbolic as there are no proposals to construct the roadway up to, but not across, the CSX tracks.
- Local projects include the portions of Nebel Street Extended (north of Randolph Road), Chapman Avenue, and Citadel Avenue already in the County's implementation program.
- Private projects include those portions of the public street system described in the Plan that are in control of individual property owners and would be required for internal site access and design (such as Mid-Pike Plaza, North Bethesda Town Center, and White Flint Mall).
- District projects are those assumed to be the responsibility of the White Flint Redevelopment Implementation Authority, including the construction or reconstruction of:
  - Rockville Pike ($66 million)
  - Metrorail Station north entrance ($25 million)
  - MARC station and supporting access ($13 million)
  - Circulator shuttles ($5 million)
  - Local streets not required for site access and design ($62 million).
- Right-of-way costs were not included in the cost estimates. New network streets are located where redevelopment is expected to occur so that, in a typical development process, right-of-way dedication would generally be expected, with density calculated from the gross tract area prior to dedication. The White Flint Redevelopment Implementation Authority will have two options for addressing right-of-way acquisition:
  - establish an infrastructure delivery process by which right-of-way is acquired from its members without fee simple acquisition at a cost to the public sector
  - revise financing schema to include right-of-way acquisition costs, which staff estimates could increase capital costs by $130 million, based on the extent of district street and roadway projects and the fact that right-of-way costs for new streets in urban areas often equal the remaining capital construction costs.
- Roadway capital costs are based on the following unit costs:
  - $50 million per mile for Rockville Pike reconstruction based on cost estimates for similar portions of New York Avenue in Washington D.C. and U.S. 1 in College Park, Maryland.
  - $25 million per mile for local roadway construction, based on the County's four-lane Nebel Street Extended project (CIP project 500401) at $26 million per mile and two-lane Citadel Avenue (CIP project 500310) at $24 million per mile.

Figure 11: Estimated Transportation Network Infrastructure Capital Costs

White Flint Sector Plan
Public Facilities Staging Plan

Staff Draft - September 22, 2008
Estimated Capital Cost by Stage

	State	Local	Private	District	TOTAL
Public Transit Elements					
Stage One	$ -	$ -	$ -	$ 26.50	$ 26.50
Stage Two	$ -	$ -	$ -	$ 3.00	$ 3.00
Stage Three	$ -	$ -	$ -	$ 13.00	$ 13.00
TOTAL	$ -	$ -	$ -	$ 42.50	$ 42.50
Streets and Bikeways					
Stage One	$ 47.20	$ 20.10	$ 7.50	$ 27.50	$ 102.30
Stage Two	$ 20.00	$ -	$ 43.75	$ 32.75	$ 96.50
Stage Three	$ -	$ -	$ 9.25	$ 68.50	$ 77.75
TOTAL	$ 67.20	$ 20.10	$ 60.50	$ 128.75	$ 276.55
Total Transportation Network Elements					
Stage One	$ 47.20	$ 20.10	$ 7.50	$ 54.00	$ 128.80
Stage Two	$ 20.00	$ -	$ 43.75	$ 35.75	$ 99.50
Stage Three	$ -	$ -	$ 9.25	$ 81.50	$ 90.75
TOTAL	$ 67.20	$ 20.10	$ 60.50	$ 171.25	$ 319.05

The Planning Board Draft Plan includes an updated estimate of both construction and right-of-way costs for each of the projects in the staging plan. These estimates, included in Table 7 of the draft plan version presented at worksession #12 on June 18, total $313 million. The primary differences between worksession #12 are the inclusion of a "worst-case" estimate of $108M of right-of-way costs and the elimination of local streets (termed "District" responsibility in Figure 11 above). The actual right-of-way costs will depend upon

which properties dedicate right-of-way in advance of roadway construction.

H. Summary of Changes to the 1994 Plan

The Plan proposes changes to the transportation systems in the 1994 North Bethesda-Garrett Park Master Plan and the 2000 Montrose Parkway Limited Master Plan Amendment that combine the function of the prior Montrose Parkway crossing of Rockville Pike with existing Montrose and Randolph Road.

- Establish a parking management authority.
- Move the proposed MARC station from Montrose Crossing to the Nicholson Court location.
- Remove the Rockville Pike/Nicholson Lane interchange, to be replaced by a more robust network of local streets in the Plan's southeastern quadrant.
- Reconstruct Rockville Pike to include bus transit priority treatments within a 150-foot right-of-way.
- Reorient the Old Georgetown Road intersection with Executive Boulevard.
- Establish a robust public business street network, with notable changes to the 1994 Plan including:
  - adding Main Street (B-10), Nebel Street Extended (B-5), and street grid extensions within the Mid-Pike Plaza (B-15, B-16) and White Flint Mall (B-4, B-17) Districts
  - downgrading Woodglen Drive (B-3) between Marinelli Road and Nicholson Lane from formal business street status. This is important connection but dedication and construction as a standard business street in the planned 70-foot' right-of-way is not feasible.
- Establish a secondary grid of local streets and alleys.
- Expand the White Flint Metro Station Policy Area to match the Sector Plan's boundary.
- Establish a combination of public entities and financing mechanisms to assign proportional responsibility to new development, in lieu of the LATR and PAMR tests at time of subdivision, to manage transportation system implementation.

3. Transportation/Land Use Balance

The Plan's transportation analyses reflect the procedural guidance established by the County Council's growth policy, implemented through Local Area Transportation Review (LATR) and Policy Area Mobility Review (PAMR) processes. This guidance is described below, followed by description of regional transportation and land use assumptions and a brief summary of the alternative local land use scenarios analyzed.

The *White Flint Sector Plan* proposes an amount and mix of development comparable to the Bethesda CBD and Silver Spring CBD Plans. As shown in Figure 12, all three plan areas are centered on a Metrorail station, are designated Metrorail Station Policy Areas (with a few very minor parcel-specific exceptions), and are of similar geographic size.

Figure 12: Land Use Comparison to Bethesda and Silver Spring

Sector Plan	Acres	Existing	Future		
		Jobs	HH	Jobs	HH
Bethesda	407	35,800	6,700	50,900	9,400
Silver Spring	367	30,400	5,600	45,700	8,100
White Flint	430	18,100	2,100	48,600	12,300

The Bethesda CBD forecasts shown above are from the April 2004 staging analysis prepared for the Planning Board in moving from Stage I to Stage 2 of the 1994 Bethesda CBD plan. The Silver Spring CBD forecast shown above is from the 2001 Silver Spring CBD plan. In both Bethesda and Silver Spring, subsequent demographic forecasts have reflected the policy to shift new development from jobs toward housing to achieve a better jobs-housing balance, so the Round 7.1 forecasts for both Bethesda and Silver Spring have approximately 10,000 fewer jobs, but the 2030 housing forecasts for both plans are 13,100 and 14,300, respectively.

The primary difference in White Flint is that the change from existing to future is greater than for Bethesda and Silver Spring, a recognition that the transformational growth in the two CBDs inside the Beltway occurred ten to fifteen years ago, whereas that envisioned for White Flint is just beginning.

A. Measures of Effectiveness

The analysis of alternative development scenarios considers three levels of transportation impacts.

- An area wide mobility analysis indicates the degree to which the alternative local land use and transportation scenarios provide an appropriate balance between land use and transportation per current County policies.
- An intersection congestion analysis indicates the degree to which alternative land use or transportation changes affect congestion hot-spots within the Plan area.
- A cordon line analysis demonstrates the relative effects of vehicles generated by alternative local land use scenarios as compared to through travel.

The first two measures are elements of the County's Growth Policy, called Policy Area Mobility Review (PAMR) and Local Area Transportation Review (LATR). Both PAMR and LATR are summarized below and detailed background information is available on the Department's website, MontgomeryPlanning.org.

Policy Area Mobility Review

Since the early 1980s, every master plan has considered the balance between land use and transportation by assessing area wide conditions forecast for the plan's end-state conditions. Policy Area Mobility Review is the current measure of area wide transportation adequacy, introduced into the County Growth Policy in 2007. It is similar to the Policy Area Transportation Review measure that was an element of the Growth Policy since 1982.

PAMR is used to implement the Adequate Public Facilities Ordinance (APFO), which forecasts conditions by assessing the County's pipeline of approved development and funded near-term transportation system improvements.

PAMR continues a long-standing County policy that higher levels of roadway congestion are appropriate in areas with higher quality transit service. This policy provides multimodal equity across the County and supports the development of pedestrian-oriented, rather than auto-oriented, improvements in Metro Station Policy Areas.

PAMR provides a measure of transportation system adequacy by considering Relative Transit Mobility and Relative Arterial Mobility for each of the County's policy areas. Through PAMR, the County Council has established transit and arterial level of service (LOS) standards for each policy area by considering area wide adequacy on two scales:

- Relative transit mobility, defined as the relative speed by which journey to work trips can be made by transit as opposed to by auto, is based on the Transit/Auto Travel Time level of service concept in the 2003 Transit Capacity and Quality of Service Manual published by the Transportation Research Board. This concept assigns letter grades to various levels of transit service, so that LOS A conditions exist for transit when a trip can be made more quickly by transit (including walk-access/drive-access and wait times) than by single-occupant auto. This LOS A condition exists in the Washington region for certain rail transit trips with short walk times at both ends of the trip and some bus trips in HOV corridors. LOS F conditions exist when a trip takes more than an hour longer to make by transit than by single-occupant auto.

- Relative arterial mobility, defined as the relative speed by which auto trips move during peak congestion periods as compared to the free-flow speed, is a measure of congestion on the County's arterial roadway network. It is based on the urban street delay level of service in the 2000 Highway Capacity Manual, published by the Transportation Research Board. It assigns letter grades to the various levels of roadway congestion, with letter A assigned to the best levels of service and letter F assigned to the worst levels of service. For a trip along an urban street that has a free-flow speed (generally akin to posted speed) of 40 miles per hour, LOS A conditions exist when the actual travel speed is at least 34 miles per hour, including delays experienced at traffic signals. At the other end of the spectrum, LOS F conditions exist when the actual travel speed is below 10 miles per hour.

PAMR has been used along with Average Congestion Index (ACI) in the development of master plans to determine whether or not the end-state land use and transportation recommendations of the master plan are in balance. Sector plan areas typically address roadway capacity needs by intersection improvements rather than roadway widening. Therefore, the AGP process has evaluated sector plans in conjunction with the master plan and policy area surrounding the White Flint area.

The *White Flint Sector Plan* area is located within the North Bethesda/Garrett Park Policy Area. Figure 13 shows the forecast PAMR conditions for all policy areas in the County for 2030 along with the White Flint Sector Plan recommendations.

Figure 14 summarizes the supporting travel data, including vehicle miles of travel (VMT) and vehicle hours of travel (VHT) for both free-flow and congested conditions. As indicated in Figure13, the North Bethesda Policy Area is forecast to operate at:

- Relative Transit Mobility of 77 percent (LOS B – between 75 and 100 percent)
- Relative Arterial Mobility of 37 percent (LOS E – between 25 and 40 percent)

The current Growth Policy requires that all Policy Areas have at Relative Arterial Mobility of at least 40 percent, or LOS D conditions, regardless of the level of transit service provided. Staff proposes that this requirement is too stringent and that higher levels of congestion should be supportable where the Relative Transit Mobility is LOS A or LOS B. Therefore, the Public Hearing Draft Plan results in congestion levels that would require additional mitigation from private development should full buildout occur as forecast and current Growth Policy standards still apply.

The Planning Board and County Council had several discussions regarding the level of arterial mobility appropriate in areas with excellent transit service as the PAMR process was developed and adopted during 2007. The Planning Board's May 2007 recommendation for PAMR was to allow LOS E arterial mobility in areas with LOS B transit mobility, a concept described by the green line on Figure 13. The Planning Board continues to support this concept.

Figure 13: Policy Area Mobility Review Chart-2030

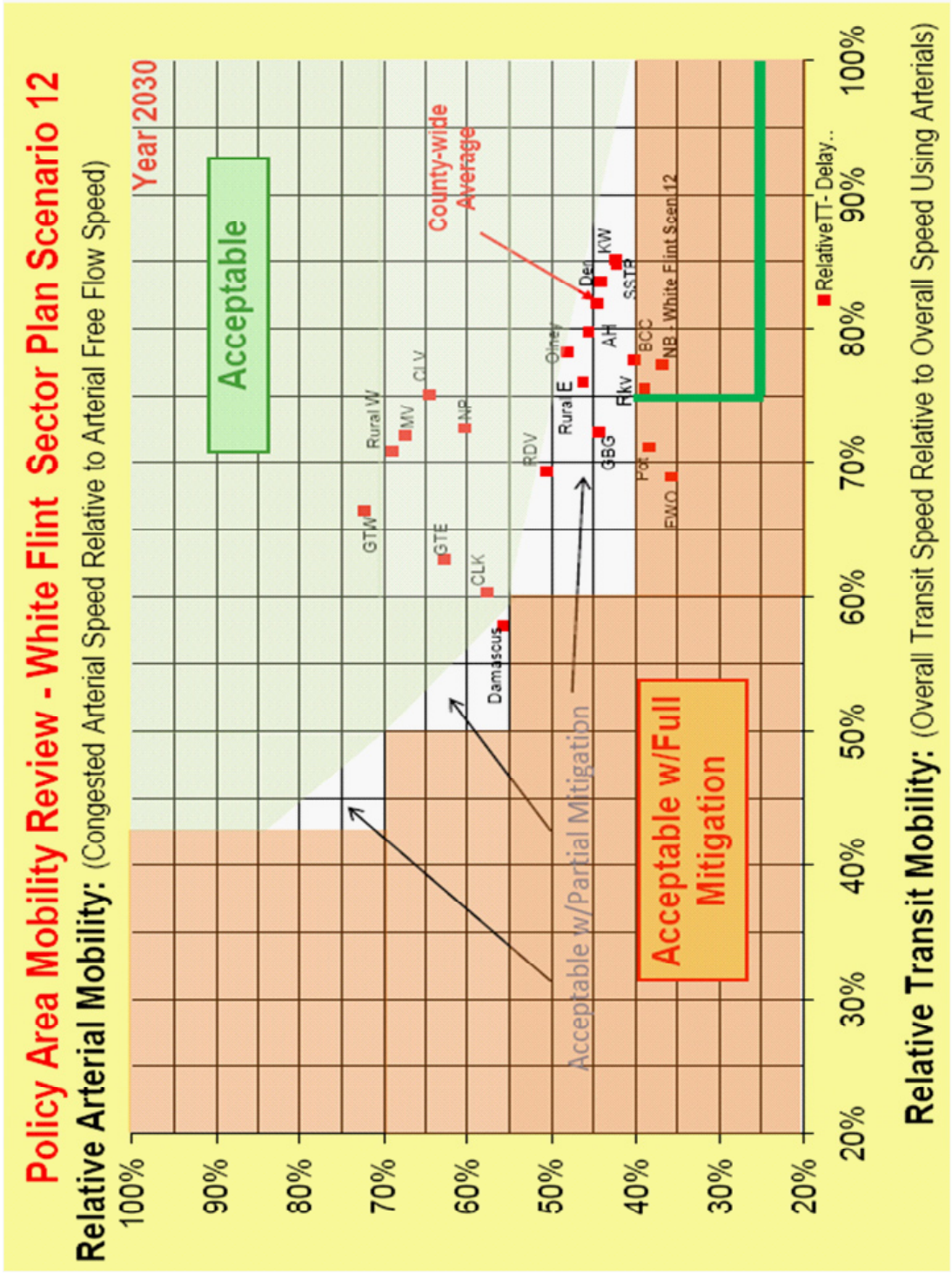


Figure 14: Policy Area Mobility Review Table-2030

Derivation of Year 2030 PAMR Results by Policy Area (White Flint Sector Plan Scenario 12 LU Scenario w/Rnd 7.1 Forecast)

Policy Area	VMT	VHT (free-flow)	VHT (congested)	Free-Flow Speeds	Congested Speeds	Relative Arterial Mobility	Average Arterial Travel Time	Average Transit Travel Time	Relative Transit Mobility
	Relative Arterial Mobility						Relative Transit Mobility		
Aspen Hill	192,405	5,874	12,882	32.8	14.9	46%	41.2	51.7	80%
Bethesda/Chevy Chase	399,731	15,688	39,110	25.5	10.2	40%	30.9	39.8	78%
Clarksburg	110,128	3,673	6,359	30.0	17.3	58%	38.1	63.2	60%
Cloverly	98,412	2,442	3,782	40.3	26.0	65%	44.1	58.8	75%
Damascus	92,166	2,284	4,093	40.4	22.5	56%	48.1	83.0	58%
Derwood/Shady Grove	142,859	5,086	11,518	28.1	12.4	44%	37.8	45.3	83%
Fairland/White Oak	389,327	10,282	28,736	37.9	13.6	36%	39.9	57.8	69%
Gaithersburg City	233,077	8,387	18,902	28.0	12.4	44%	35.1	48.6	72%
Germantown East	107,895	3,641	5,797	29.6	18.6	63%	36.8	58.5	63%
Germantown West	149,752	4,905	6,776	30.5	22.1	72%	37.3	56.1	66%
Kensington/Wheaton	478,739	15,069	33,598	31.8	13.4	42%	37.2	43.7	85%
Montgomery Village/Airpark	146,004	4,837	7,165	30.2	20.4	68%	41.6	57.7	72%
North Bethesda	255,117	11,282	30,693	22.6	8.3	37%	29.2	37.7	77%
North Potomac	65,971	2,364	3,919	27.9	16.8	60%	40.8	56.3	72%
Olney	170,857	4,844	10,047	35.3	17.0	48%	47.4	60.6	78%
Potomac	204,413	6,132	13,988	33.3	12.8	38%	38.4	53.9	71%
R & D Village	66,569	2,958	5,847	22.5	11.4	51%	32.0	46.1	69%
Rockville City	277,881	12,025	30,870	23.1	9.0	39%	31.9	42.3	75%
Silver Spring/Takoma Park	277,475	10,616	25,145	26.1	11.0	42%	33.3	39.3	85%
Rural East	612,620	15,620	33,717	39.2	18.2	46%	47.1	62.0	76%
Rural West	244,374	6,640	9,618	36.8	25.4	69%	47.8	67.4	71%
Montgomery County Total	4,717,792	154,649	346,562	30.5	13.6	45%	37.9	46.3	82%

Relative Arterial Mobility measures total PM Peak Period vehicular travel on arterial roadways within each policy area
Relative Transit Mobility measures AM Peak Period travel times for journey-to-work trips originating within each policy area
VMT = Vehicle Miles of Travel
VHT = Vehicle Hours of Travel

The assessment of policy area conditions in Figures 13 and 14 reflects the recommended Plan yield for White Flint and Round 7.1 demographic forecasts for all other areas in the Washington metropolitan region. Therefore, while the exhibits are appropriately labeled with a horizon year of 2030, staff does not expect that the full master plan yield for any of the policy areas will be achieved by 2030.

Figure 15 summarizes 2005 PAMR conditions by policy area for comparison purposes. In both 2005 and 2030 conditions, the North Bethesda, Bethesda/Chevy Chase, and Silver Spring/Takoma Park are the three most urban areas in the County, reflected by:

- shorter than average travel times for journey-to-work by both auto and transit, reflecting the proximity of both local and regional destinations
- lower than average roadway network travel speeds for both free flow and congested travel times.

Local Area Transportation Review (LATR)

The Plan supports redevelopment into a transit-oriented community with an emphasis on pedestrian accessibility, connectivity, and safety. The amount of additional development that the Plan area can accommodate by providing additional intersection capacity requires a tradeoff between the level of service for vehicles compared to that provided for pedestrians. Staff proposes that no pedestrian crossings are longer than 60 feet between curbs and refuge areas; generally equivalent to five travel lanes. Crossings of four lanes or fewer are desirable.

The intersection analysis applies the Critical Lane Volume (CLV) methodology from the Department's Local Area Transportation Review (LATR) guidelines. The CLV values are converted to a volume-to-capacity, or V/C ratio, by dividing the current or forecasted CLV values by the applicable congestion standard.

As shown in Figure 16, the Growth Policy establishes acceptable levels of congestion for different policy areas based which alternative modes of transportation are available. In rural policy areas, where few alternatives to auto transport exist, the congestion standard is 1350 CLV (which equates to the middle range of LOS D). In Metro Station Policy Areas, where multiple alternatives to auto transport are provided, the congestion standard is 1800 CLV.

The Plan recommends extending the White Flint Metro Station Policy Area to encompass the entire Sector Plan area, so that all intersections in the Plan area would have a congestion standard of 1800 CLV. Currently, some of the intersections have a congestion standard of 1600 CLV.

Figure 15: Policy Area Mobility Review Table-2005

Derivation of Year 2005 PAMR Results by Policy Area

Policy Area	VMT	VHT (free-flow)	VHT (congested)	Relative Arterial Mobility: Free-Flow Speeds	Relative Arterial Mobility: Congested Speeds	Relative Arterial Mobility	Relative Transit Mobility: Average Arterial Travel Time	Relative Transit Mobility: Average Transit Travel Time	Relative Transit Mobility
Aspen Hill	166,975	4,992	11,141	33.4	15.0	45%	36.4	54.5	67%
Bethesda/Chevy Chase	370,936	14,148	31,264	26.2	11.9	45%	25.8	36.9	70%
Clarksburg	48,985	1,341	2,038	36.5	24.0	66%	38.6	69.9	55%
Cloverly	80,280	1,954	3,398	41.1	23.6	58%	39.8	59.6	67%
Damascus	57,419	1,350	1,749	42.5	32.8	77%	43.5	95.7	45%
Derwood/Shady Grove	128,774	4,337	8,851	29.7	14.5	49%	34.4	50.8	68%
Fairland/White Oak	332,420	9,478	18,794	35.1	17.7	50%	35.4	60.9	58%
Gaithersburg City	187,111	6,483	12,132	28.9	15.4	53%	31.5	56.4	56%
Germantown East	83,578	2,421	4,388	34.5	19.0	55%	35.4	65.6	54%
Germantown West	111,574	3,299	4,525	33.8	24.7	73%	35.7	61.5	58%
Kensington/Wheaton	410,368	12,896	26,052	31.8	15.8	50%	31.7	45.3	70%
Montgomery Village/Airpark	92,853	3,086	5,928	30.1	15.7	52%	38.3	64.9	59%
North Bethesda	194,468	7,893	17,069	24.6	11.4	46%	27.0	39.1	69%
North Potomac	53,299	1,811	2,989	29.4	17.8	61%	36.7	60.6	61%
Olney	136,864	3,972	7,727	34.5	17.7	51%	43.9	72.2	61%
Potomac	180,868	5,290	11,631	34.2	15.6	45%	33.7	54.5	62%
R & D Village	47,322	1,980	2,853	23.9	16.6	69%	30.7	52.2	59%
Rockville City	255,979	10,046	20,932	25.6	12.2	48%	29.1	47.3	62%
Silver Spring/Takoma Park	230,410	8,782	17,926	26.2	12.9	49%	27.7	40.2	69%
Rural East	449,002	11,427	20,928	39.3	21.5	55%	42.9	70.2	61%
Rural West	171,011	4,996	6,411	37.2	26.7	72%	42.7	75.6	56%
Montgomery County Total	3,790,196	121,552	238,726	31.2	15.9	51%	34.2	50.7	67%

Relative Arterial Mobility measures total PM Peak Period vehicular travel on arterial roadways within each policy area
Relative Transit Mobility measures AM Peak Period travel times for journey-to-work trips originating within each policy area
VMT = Vehicle Miles of Travel
VHT = Vehicle Hours of Travel

Figure 17 summarizes the congested intersections under both existing conditions and the Draft Plan scenario. As indicated in Figure 17:

- none of the intersections in the Plan area currently exceed either the 1600 or 1800 congestion standards
- just two of the intersections (MD 355 at Old Georgetown Road and Old Georgetown Road at Executive Boulevard) are forecast to slightly exceed the 1800 CLV congestion standard at Plan buildout during the evening peak hour. Staff finds that the results in Figure 17 reflect an appropriate indicator of balance for 25-year forecasts.

Figure 16: Intersection Congestion Standards by Policy Area

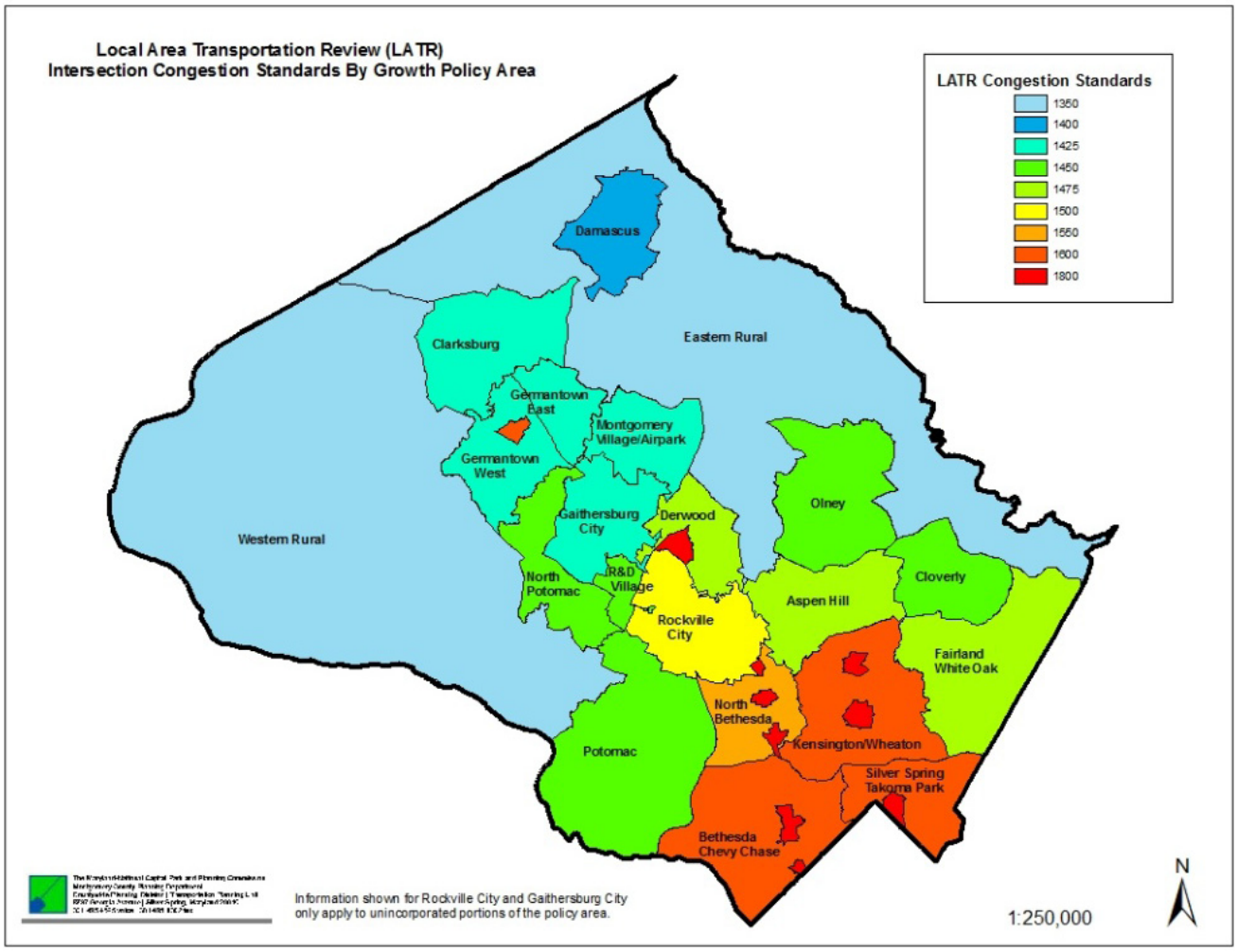


Figure 17: Intersection Analysis

White Flint Sector Plan
Intersection Analyses
Critical Lane Volume and Volume / Capacity Ratios

Intersection	Existing Conditions Scenario 0 AM	PM	Max V/C	Public Hearing Draft Plan Scenario 12A7 AM	PM	Max V/C
25 Montrose @ Maple	861	1008	0.56	1559	1629	0.91
31 Nicholson @ Huff	579	758	0.42	1086	1343	0.75
33 Nicholson @ Nebel	832	1188	0.66	1529	1732	0.96
35 Rockville @ Marinelli	1067	998	0.59	1335	1541	0.86
36 Rockville @ Nicholson	1155	1385	0.77	1712	1794	1.00
37 Rockville @ Security	922	994	0.55	1314	1469	0.82
38 Rockville @ Edson	1013	1224	0.68	1493	1609	0.89
106 Rockville @ Montrose	1501	1452	0.83	Replaced by interchange		
107 Rockville @ Mid-Pike	992	1335	0.74	1223	1736	0.96
108 Rockville @ Old Georgetown	1179	1188	0.66	1694	**1830**	**1.02**
109 Executive @ Nicholson	755	751	0.42	935	1201	0.67
110 Old Georgetown @ Mid Pike	633	625	0.35	1261	1284	0.71
111 Old Georgetown @ Executive	1510	1241	0.84	1734	**1800**	**1.00**
112 Old Georgetown @ Tilden	1191	1222	0.68	1626	1442	0.90
147 Executive @ Marinelli	376	569	0.32	599	1073	0.60
398 Nicholson @ Woodglen	586	735	0.41	1227	1379	0.77
494 Old Georgetown @ Edson	976	1181	0.66	1374	1456	0.81
902 Old Old Georgetown @ Montrose Pkwy	713	926	0.51	1573	1505	0.87
904 SB 355 Ramp @ Montrose Road				1383	1421	0.79
905 NB 355 Ramp @ Montrose Pkwy				1269	1365	0.76
906 Nebel @ Randolph	757	1060	0.59	1582	1671	0.93
907 Randolph @ Parklawn				1097	776	0.61
910 MD 355 @ Executive				1167	1444	0.80
912 MD 355 @ Main				1517	1757	0.98
913 Nebel @ Old Georgetown				1470	1410	0.82
914 Woodglen @ Old Georgetown				1124	1580	0.88
917 Old Georgetown @ Main				1200	1724	0.96

In addition to the intersection congestion in the Plan area and around the cordon line, staff examined congestion at the southern and western portals where traffic volumes are expected to be the highest along Montrose Parkway and MD 355. At Montrose Parkway and Tildenwood Lane, the peak hour forecast CLV is 1943 and at MD 355 and Strathmore Avenue (MD 547) the peak hour forecast CLV is 1852. These forecasts are higher than the current CLV congestion standard of 1600 for the North Bethesda Policy Area. They are typical, however, of CLV forecasts for intersections on heavily traveled arterial routes in sector plans where smart growth development is being encouraged by County policy, including the *Silver Spring CBD Sector Plan* in 2000, the *Bethesda CBD Sector Plan* staging analysis in 2004, and the *Shady Grove Sector Plan* in 2006. Staff finds that forecast CLV values of up to 2000 are indicative of some delay, but not enough to induce diversion to residential streets.

Cordon Line Analysis

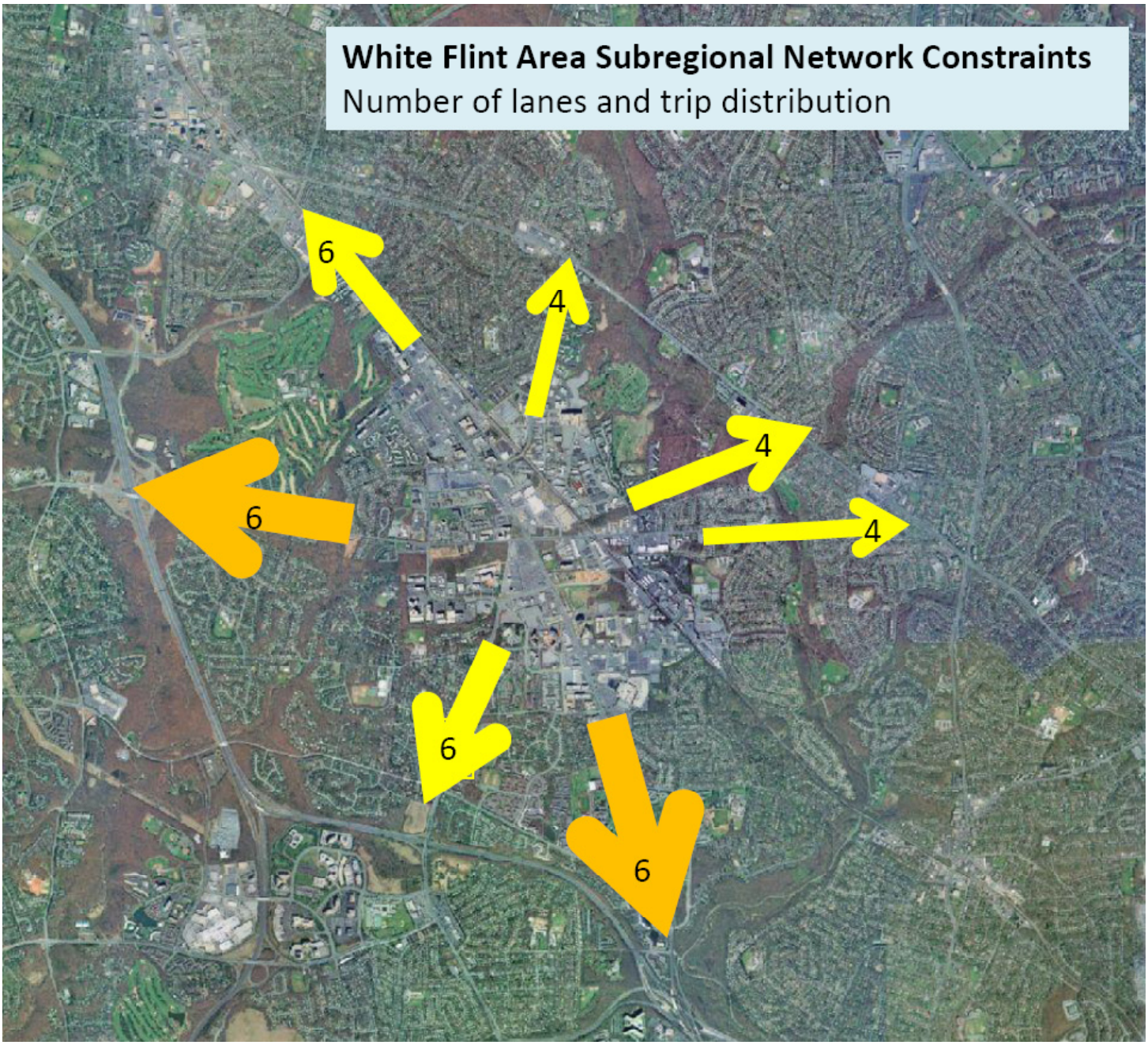
A cordon line analysis can quickly gauge traffic levels by comparing total traffic volumes entering or leaving a study area for different horizon years or development scenarios. Over the course of the Plan process, three separate cordon line analyses were conducted for different purposes.

- A subregional cordon line considered flows into and out of the broader North Bethesda commercial area (Figure 18). This cordon line generally reflects the boundary between analysis that applied the TRAVEL/3 system level model and analysis that applied the Local Area Model.
- A Sector Plan boundary cordon line tracked vehicles entering and leaving the Plan area.
- An inner cordon line was established that matches the Sector Plan boundary cordon line but is south rather than north of Montrose Parkway. This cordon line excludes Montrose Parkway from the analysis, which is appropriate for considering cordon line capacity constraints because the east-west capacity on Montrose Parkway includes through traffic.

For the same consideration regarding through traffic, it would have been desirable to treat Old Georgetown Road in the same manner (drawing a cordon line to the east, rather than to the west) but the number of network alternatives examined during Plan development that altered Old Georgetown Road and access options in the Mid-Pike Plaza and Metro West Districts precluded consistent application of this cordon line concept.

The inner cordon line was used to assess of forecast traffic volumes based on trip generation and a constant level of through traffic as a quick-response sensitivity test to land use alternatives. These conceptual cordon line volumes are reflected in the bar chart comparisons of land use volumes and may differ slightly from the volumes shown on traffic assignments.

Figure 18: Subregional Network Constraints



Other Considerations

The development of the Plan recommendations also considered the transportation system performance measures described below.

Metrorail System Capacity

About 4,000 people board Metrorail at the White Flint station on a typical weekday. The morning and evening peak periods account for a total of 73 percent of the boardings. The number boarding in the morning peak period (1,400 to 1,500) is very close to the number boarding in the evening peak period, indicating that the use of Metrorail for residents in White Flint (who typically work in the morning) and workers in White Flint (who typically board during the evening) is about equal. There are more workers than residents in White Flint but the transit mode share for residents is higher than it is for workers, based primarily on White Flint's location in the region (and therefore housing affordability and parking availability characteristics that affect journey-to-work travel).

As of October 2006, about 41 percent of the 1,158 spaces in parking garage at White Flint are filled, its maximum use Mondays through Thursdays. On a Friday, about 31 percent of the spaces are filled.

The *White Flint Sector Plan* recommends adding a northern Metrorail station entrance to bring more jobs and dwelling units within walking distance of the station platform and to disperse transit station pedestrian activity. WMATA is studying alternatives for the northern entrance. Staff finds that while Metrorail station access improvements are needed, the overall Metrorail system line-haul capacity is sufficient to accommodate Plan development.

Staff reviewed forecast transit line capacity for the western leg of the Red Line during the *MD 355/I-270 Corridor Study* in 2006. WMATA completed their *Metrorail Station Access and Capacity Study* in April 2008, which included an assessment of long-range system capacity. Both studies concluded that sufficient capacity exists to accommodate additional development in White Flint.

Figure 19: Metrorail Red Line Capacity and Demand

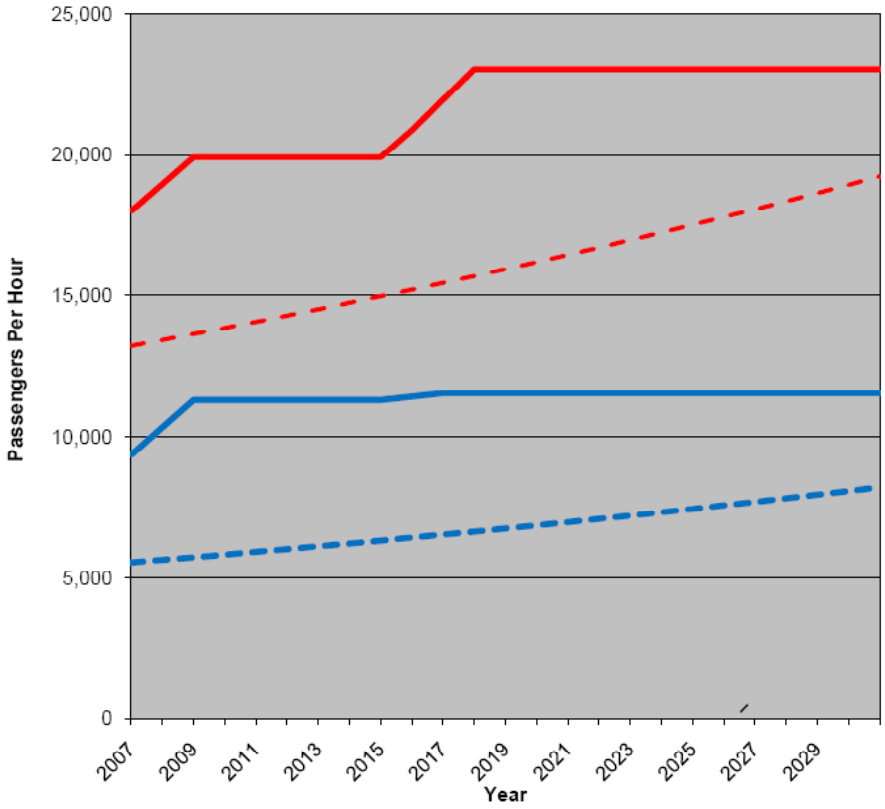


Figure 19 presents M-NCPPC analysis of capacity increases along the Red Line. At the Washington, D.C. boundary, forecasts indicated a peak-hour, peak direction demand of approximately 19,000 riders, within the forecast 23,000 seat capacity (assuming 2.5 minute headways, eight car trains, and 120 passengers per car). A similar relationship between demand and capacity existed at White Flint (with the capacity constrained by a then-assumed Grosvenor turnback).

Figure 20 summarizes the WMATA analysis of the forecast year 2030 morning peak hour flows completed in September 2008. They are slightly more conservative than the M-NCPPC numbers, with a peak load point of approximately 15,000 riders per hour occurring at Dupont Circle.

From a roadway system perspective, jobs contribute more to congestion than households, as the volume-to-capacity constraint is greatest for vehicles leaving White Flint during the evening peak period. From a Metrorail system perspective, however, households potentially contribute more to peak-load congestion, as White Flint employees are either traveling in the reverse-peak direction (i.e., northbound in the morning) or are traveling at the end of the line (i.e., from Shady Grove to White Flint in the morning) where demand is far below capacity. The addition of 10,100 new households, however, is not expected to constrain Metrorail operations on the Red Line in 2030 because:

- 4,300 of those households are already in the 1994 Plan and reflected in WMATA forecasts
- the 5,800 additional households are expected to generate approximately 550 peak hour commuters, based on the forecast ratio of employed residents per dwelling unit (0.85, higher than the current 0.71), the percent of employed residents traveling during the peak one hour within the peak period (0.28), and the transit mode share for residential work trips (40 percent).

Even if all transit users traveled in the peak direction to the peak load point at Dupont Circle, the 550 additional trips would not cause the 2030 peak hour demand in Figure 20 to approach the 23,000 capacity mark.

Figure 20: WMATA Red Line Forecast Peak Hour Loads

Current Conditions

Location	ADT	AM Peak Hour Inbound	AM Peak Hour Outbound	AM Peak Hour Total	PM Peak Hour Inbound	PM Peak Hour Outbound	PM Peak Hour Total
MD 355 south of Hubbard	59000	2850	1430	4280	2400	2910	5310
Chapman north of Randolph/MPE	9200	140	110	250	430	400	830
Nebel north of Randolph/MPE	0	0	0	0	0	0	0
Montrose Parkway East at CSX	0	0	0	0	0	0	0
Randolph at CSX	30800	1590	710	2300	1210	1560	2770
Nicholson at CSX	30900	1180	540	1720	1000	1790	2790
MD 355 south of Edson	55000	1800	2290	4090	2420	2530	4950
Edson west of Woodglen	8000	270	190	460	470	250	720
MD 187 south of Nicholson	44300	1540	2170	3710	2330	1650	3980
Tilden west of MD 187	7400	460	270	730	230	440	670
Executive west of MD 187	25400	900	1140	2040	1380	910	2290
Montrose Parkway West west of OOGR	0	0	0	0	0	0	0
Montrose west of OOGR	27500	1070	1130	2200	1140	1340	2480
TOTAL	297500	11800	9980	21780	13010	13780	26790

Public Hearing Draft Plan (Scenario 12) Conditions

Location	ADT	AM Peak Hour Inbound	AM Peak Hour Outbound	AM Peak Hour Total	PM Peak Hour Inbound	PM Peak Hour Outbound	PM Peak Hour Total
MD 355 south of Hubbard	77500	3560	2200	5760	3090	3890	6980
Chapman north of Randolph/MPE	19400	660	570	1230	820	930	1750
Nebel north of Randolph/MPE	33100	1270	910	2180	1480	1510	2990
Montrose Parkway East at CSX	52600	2560	1990	4550	1990	2740	4730
Randolph at CSX	21600	1190	680	1870	720	1230	1950
Nicholson at CSX	40400	2130	740	2870	1320	2320	3640
MD 355 south of Edson	80200	3150	3230	6380	3460	3760	7220
Edson west of Woodglen	13400	430	270	700	680	520	1200
MD 187 south of Nicholson	67600	2660	3340	6000	3230	2860	6090
Tilden west of MD 187	6800	440	250	690	230	390	620
Executive west of MD 187	43300	1920	1760	3680	1970	1920	3890
Montrose Parkway West west of OOGR	32600	1440	1370	2810	1410	1530	2940
Montrose west of OOGR	29400	990	1310	2300	1350	1300	2650
TOTAL	517900	22400	18620	41020	21750	24900	46650

Increase, 2005 to Public Hearing Draft Plan

Location	ADT	AM Peak Hour Inbound	AM Peak Hour Outbound	AM Peak Hour Total	PM Peak Hour Inbound	PM Peak Hour Outbound	PM Peak Hour Total
MD 355 south of Hubbard	18500	710	770	1480	690	980	1670
Chapman north of Randolph/MPE	10200	520	460	980	390	530	920
Nebel north of Randolph/MPE	33100	1270	910	2180	1480	1510	2990
Montrose Parkway East at CSX	52600	2560	1990	4550	1990	2740	4730
Randolph at CSX	-9200	-400	-30	-430	-490	-330	-820
Nicholson at CSX	9500	950	200	1150	320	530	850
MD 355 south of Edson	25200	1350	940	2290	1040	1230	2270
Edson west of Woodglen	5400	160	80	240	210	270	480
MD 187 south of Nicholson	23300	1120	1170	2290	900	1210	2110
Tilden west of MD 187	-600	-20	-20	-40	0	-50	-50
Executive west of MD 187	17900	1020	620	1640	590	1010	1600
Montrose Parkway West west of OOGR	32600	1440	1370	2810	1410	1530	2940
Montrose west of OOGR	1900	-80	180	100	210	-40	170
TOTAL	220400	10600	8640	19240	8740	11120	19860

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Figure 21: Sector Plan Cordon Line Traffic Volumes

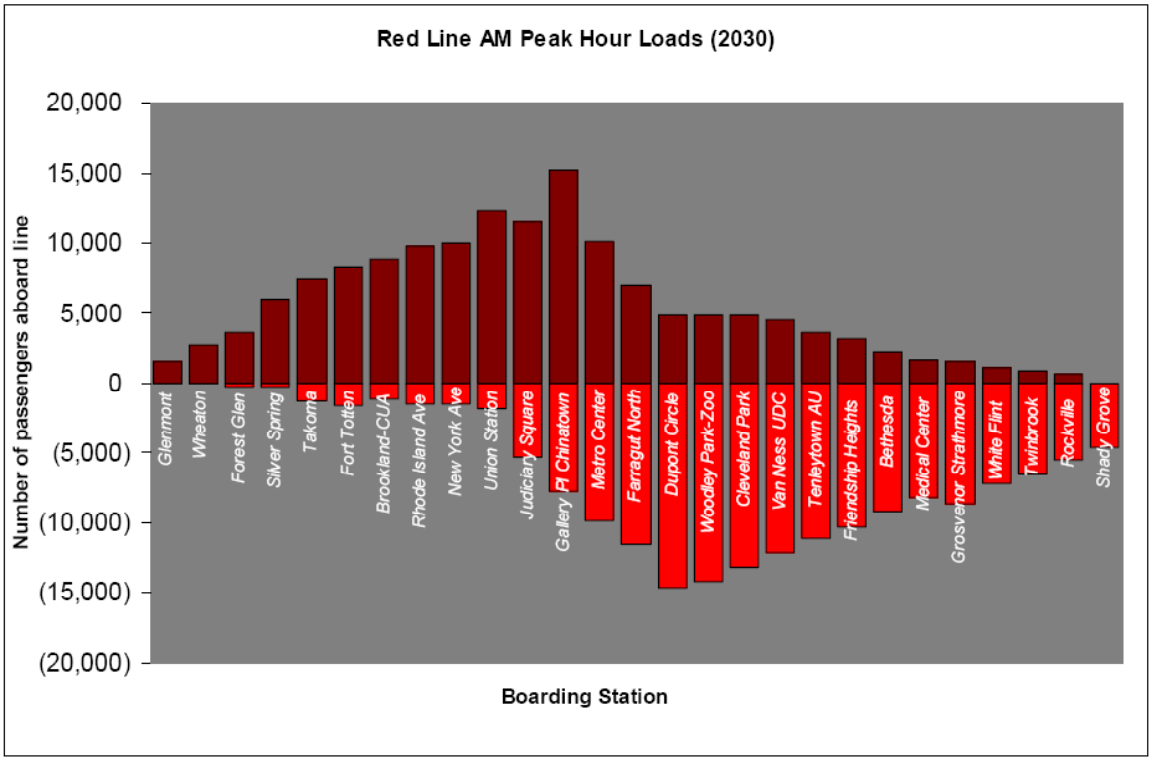


Figure 21 compares existing and forecast traffic volumes at the Sector Plan cordon line. In general, the cordon line serves as the boundary between the robust network of local streets in the Plan area and the more sparse network beyond the Plan boundary, particularly to the south and west. Therefore, traffic volumes at these locations are substantially higher than in the interior of the Plan area.

At the cordon line, the total traffic volume will increase by about 80 percent, from 297,500 vehicles per day to 517,900 vehicles per day. The heaviest volumes will occur on the two state highways, Rockville Pike (MD 355) and Old Georgetown Road (MD 187), with between 65,000 and 80,000 vehicles per day.

By comparison, Wisconsin Avenue (MD 355) and Connecticut Avenue (MD 185) both currently carry 70,000 vehicles per weekday immediately south of the Capital Beltway (as does Arlington Boulevard in the vicinity of Glebe Road in Arlington County). The daily capacity of MD 355 however, is greater north of the Capital Beltway than south of the Beltway due to differences in directional traffic flows. South of the Beltway, both local and regional flows are southbound in the morning and northbound in the evening. Between the Beltway and the *White Flint Sector Plan*, the flows will be more balanced, with forecast peak hour volumes of about 3,500 to 3,700 vehicles in each direction.

Traffic volumes and volume growth will be lower within the Plan area due to the more robust roadway network. In general, traffic volumes along Rockville Pike today in the Plan area range from 45,000 to 50,000 vehicles per day and are forecast to grow slightly to about 55,000 vehicles per day.

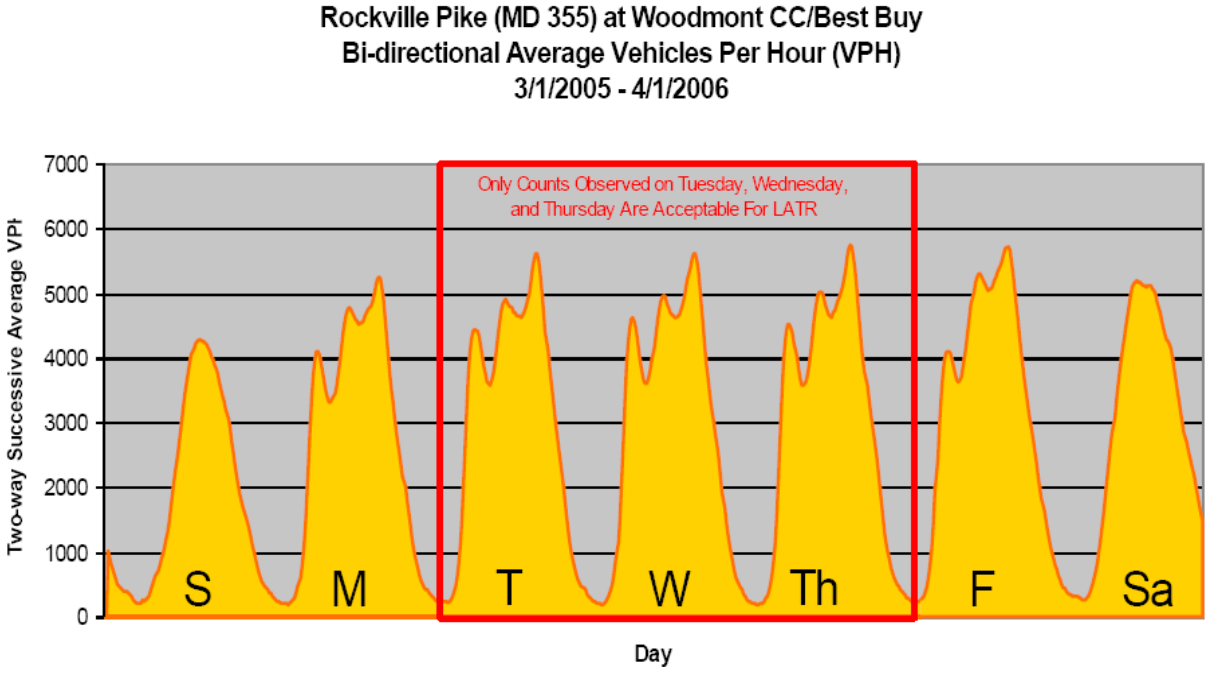
The Sector Plan analysis, like the Growth Policy, focuses on mobility considerations during weekday peak periods. The stakeholders in the Plan area are concerned that midday and weekend traffic congestion rivals that experienced during weekday peak periods. Staff found that while midday and weekend conditions are not substantially better than weekday peak period conditions, the weekday peak periods remain the critical time periods for which the transportation system should be designed.

Figure 22 shows traffic volumes by time of day and day of week on Rockville Pike near Woodmont Country Club, aggregated by 15-minute time slices over a 13-month period and presented for a typical week from Sunday through Saturday. Each of the weekdays shows a three-pronged peaking characteristic:

- A morning peak period with generally 4,000 to 4,500 vehicles per hour
- a midday peak period with generally about 5,000 vehicles per hour
- an afternoon peak period with 5,500 to 6,000 vehicles per hour.

By contrast, the Saturday volumes peak in the early afternoon with an average of just over 5,000 vehicles per hour. While both midday and weekend traffic volumes are higher than the weekday morning peak period, the weekday evening peak period remains the period with consistently highest traffic volumes.

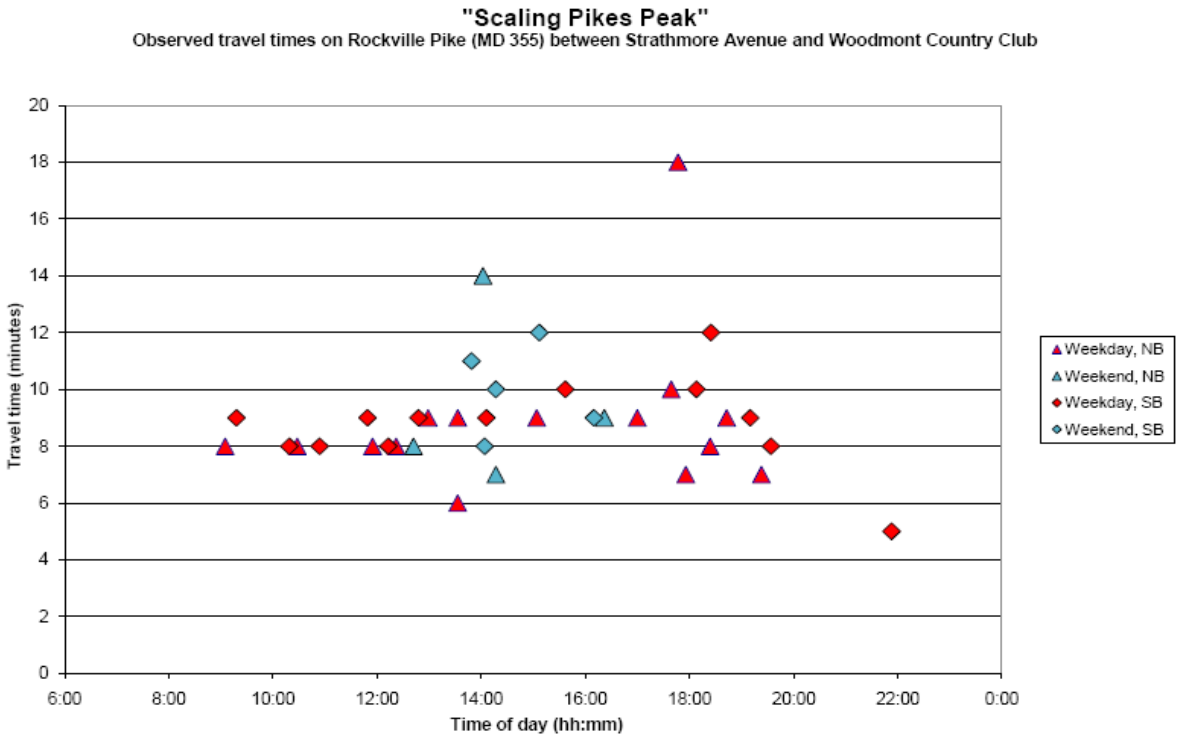
Figure 22: Rockville Pike Traffic Volumes by Time of Day



Vehicular Travel Times

Like traffic volumes, travel times on Rockville Pike are no worse during midday or weekends than they are during weekday peak periods. Figure 23 is an analysis of the travel time along Rockville Pike between Strathmore Hall and Woodmont Country Club for various times of day using data collected during late fall 2006. At the posted speed of 40 miles per hour, the free-flow travel time speed for this 2.7 mile long segment of roadway would be about four minutes, if all the traffic signals were green. The fastest observed travel time was five minutes on a weekday evening at about 10 p.m., and reflects about one minute of random delay at traffic signals along the route.

Figure 23: Rockville Pike Travel Times by Time of Day and Day of Week



Most of the 37 observed travel times fall into a band between eight and 10 minutes. A travel time of 10 minutes means that the congested travel time is twice as long as the uncongested travel time. In other words, the congested travel speed is, 50 percent of the free flow speed. The 50 percent value is also the threshold between LOS D and LOS E conditions in the Transportation Research Board's Highway Capacity Manual and applied in the PAMR process. LOS E conditions are generally recognized to be those under which the person-throughput of a facility is optimized. From the perspective of the customer, a LOS E grade is undesirable, but maximal system throughput, rather than individual customer speed, is the most efficient use of scarce resources such as land and capital budgets.

The reliability of the transportation system is also an element of concern. Two of the 37 travel time runs exceeded 12 minutes, one of them a Saturday in December (14 minutes) and the other a Tuesday in November (18 minutes). In neither case was there a notable cause for the delay, such as a special event or an observed or reported incident. These outliers indicate that as demand approaches true system capacity, the transportation system can become so unstable that relatively small variations or disturbances in flow can create fairly substantial delays. These delays are often memorable, since most travelers budget for expected (i.e., LOS D) conditions.

Figure 23 also shows that, like the midday and weekend traffic volumes, the midday and weekend travel times are generally about the same as, but not worse than, the weekday evening peak period travel times. Part of the perception regarding midday and weekend traffic may relate again to time expectations; travelers may expect quicker travel times for midday or weekend trips so that a ten minute trip up the Pike at lunch feels more burdensome than the same trip up the Pike at 5:00 p.m. But from a system staging perspective, the planning objective is to gain the greatest efficiencies from the infrastructure, so the Plan is designed to accommodate the weekday peak period travel demands.

Figure 24: Weekday Evening Peak Period Travel Speeds

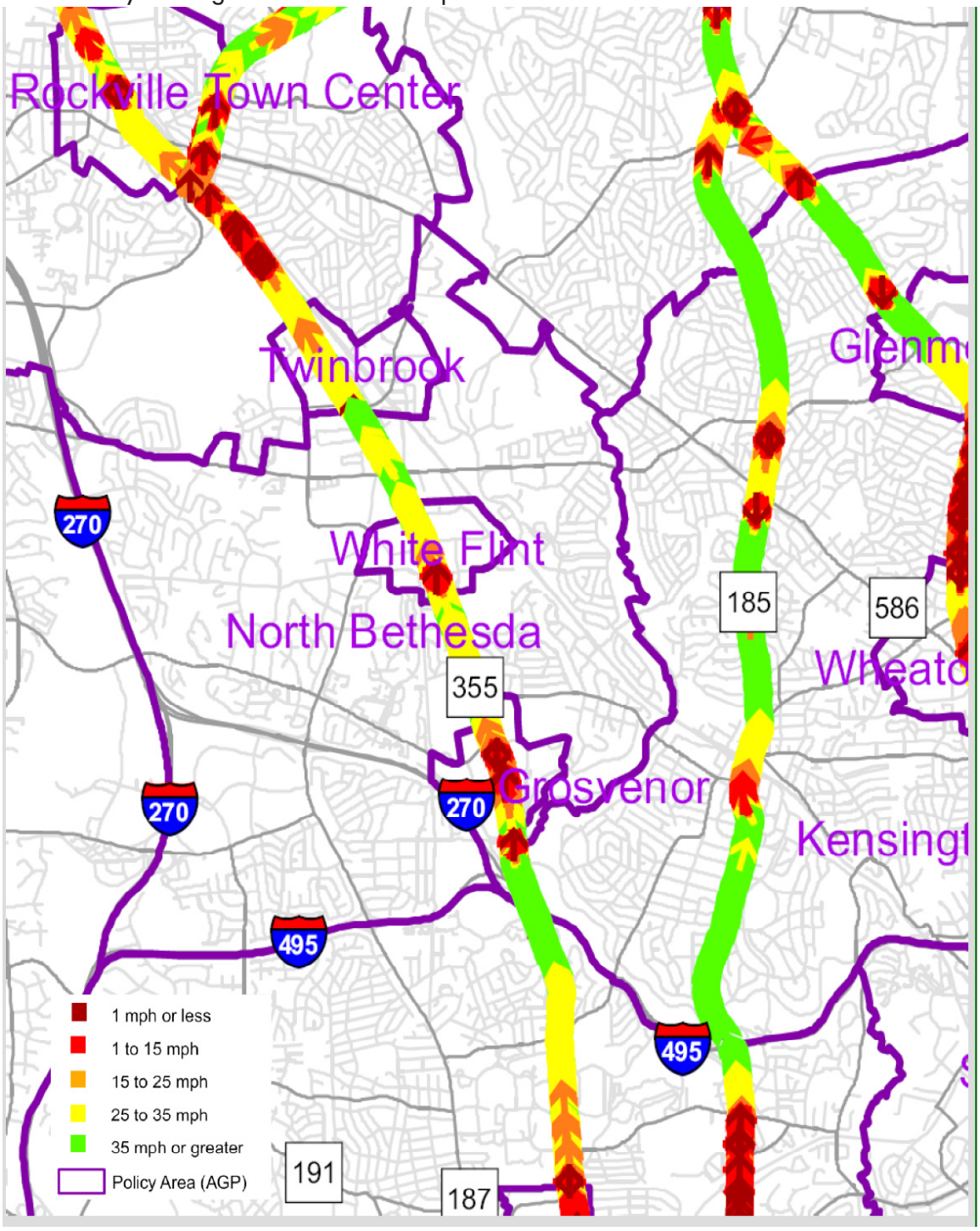


Figure 24 provides a different perspective of travel time northbound during the weekday evening peak period, showing the specific locations where delays occurred. Generally, traffic in the Plan area moved at 25 to 35 miles per hour, with delay associated with a red traffic signal at Nicholson Lane.

Local Transit System Coverage and Use

The Plan area is served by Ride On and Metrobus routes as shown in Figure 25 and summarized below.

- Ride On Route 5 (Twinbrook to Silver Spring) operates in a two-way direction on Rockville Pike between Old Georgetown Road and Strathmore Avenue. It runs as often as every ten minutes during peak hours and carries about 2,100 passengers on an average weekday.
- Ride On Route 26 (Montgomery Mall to Glenmont) operates in a two-way direction on Rockville Pile between Old Georgetown Road and Marinelli Road. It runs as often as every 20 minutes during peak hours and carries about 3,200 passengers on an average weekday.
- Ride On Route 38 (Montgomery Mall to Wheaton) operates in a two-way direction on Rockville Pike between Montrose Road and Nicholson Lane. It runs as often as every 20 minutes during peak hours and carries about 1,400 passengers on an average weekday.
- Ride On Route 46 (Montgomery College to Medical Center) operates in a two-way direction along a large segment of Rockville Pike. It runs as often as every 15 minutes during peak hours and carries about 4,000 passengers per day.
- Ride On Route 81 (Rockville to White Flint via Tower Oaks) ends at the White Flint Metrorail Station and uses Marinelli Road to access the station in both directions. This route provides service every 30 minutes and operates only during peak hours. It carries about 200 passengers per weekday.
- Metrobus Route C8 (College Park to White Flint) ends at the White Flint Metrorail Station and uses Marinelli Road to access the station in both directions. This route provides service every 35 minutes during peak hours.

Metrorail serves as the line-haul service in the corridor. The Metrobus and Ride On bus services serve two purposes:

- primarily, to provide feeder service to the Metrorail system
- secondarily, to provide circulator services for the communities in the study area.

As the Plan area develops, the secondary purpose will become more important, but will still be less important than the primary purpose, at least during peak commuting periods when bus transit system capacity is constrained.

Figure 25: Existing Public Transit Services

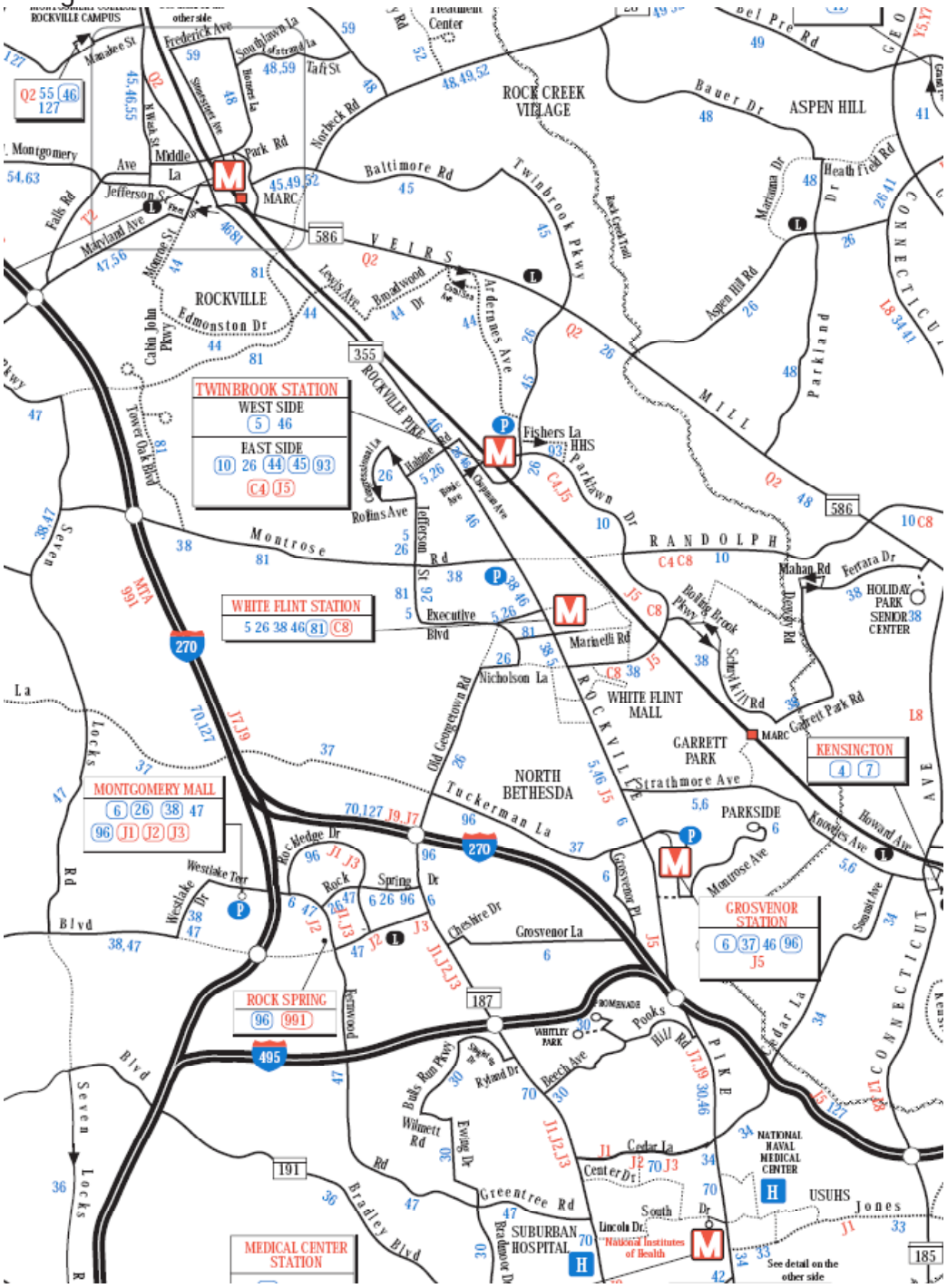
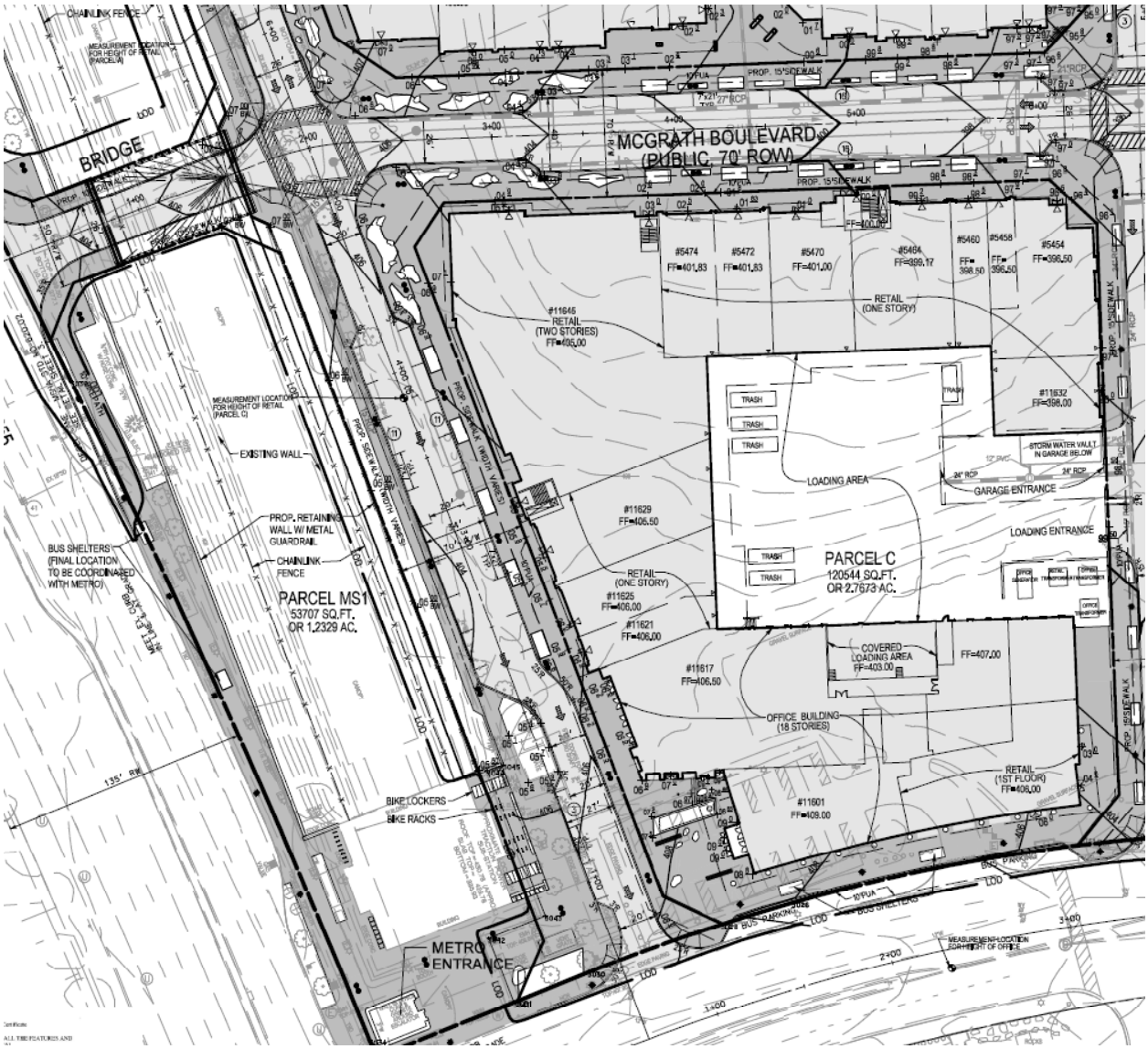


Figure 26 shows the current concept to provide six bus bays at the North Bethesda Town Center development at the LCOR property. Travel/3 Forecasting Assumptions

Figure 26: Multimodal Connections at Metrorail Station



B. Travel Demand Forecasting Process and Assumptions

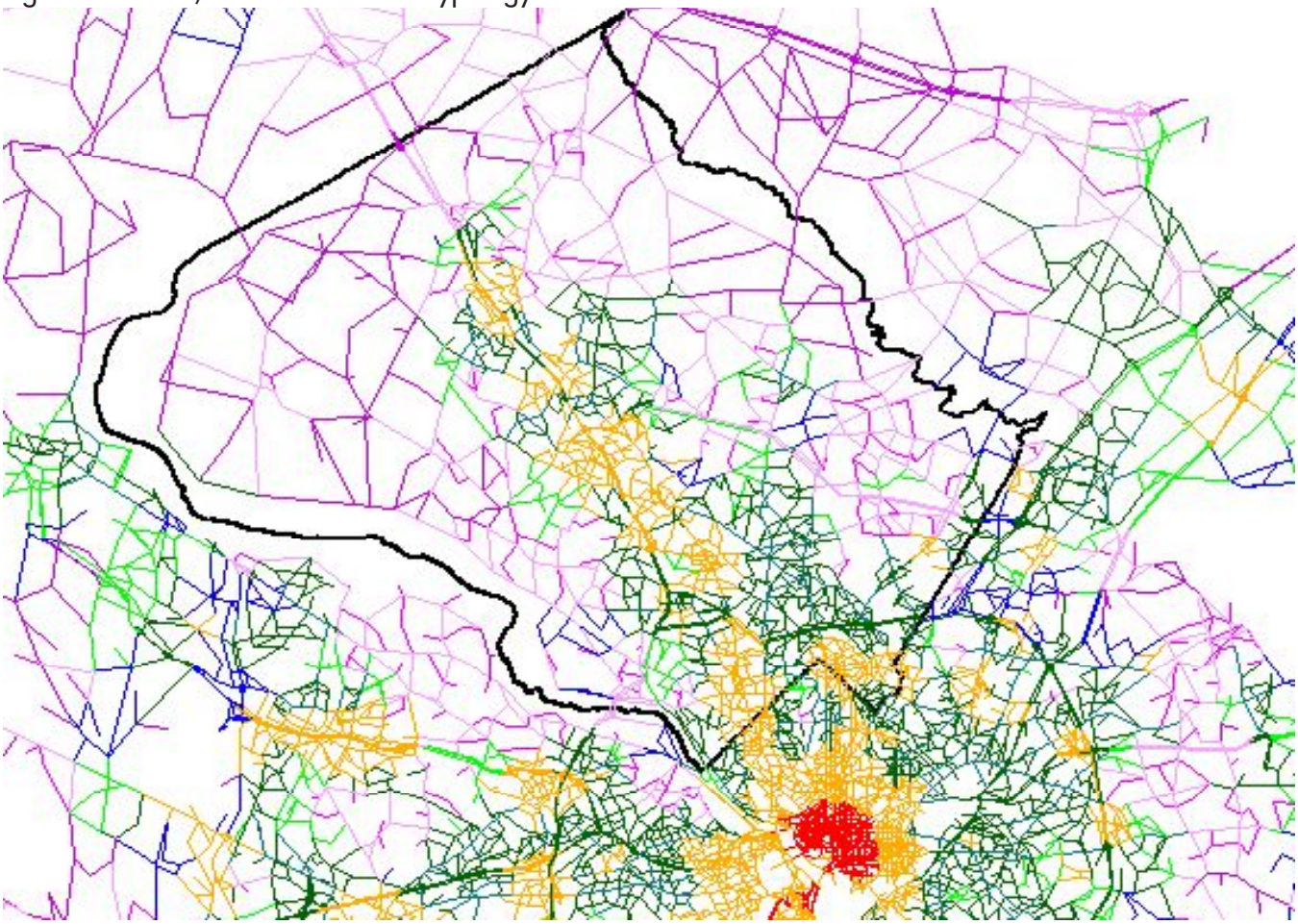
The travel demand forecasting process includes three levels of analysis: TRAVEL/3, TRAVEL/3post processing, and CLV intersection analysis.

The Department's regional travel demand forecasting model, TRAVEL/3, is used to develop forecast travel demand results for weekday travel and PM peak periods. TRAVEL/3 is a four-step model, consisting of:

- trip generation: person trips generated by given types and densities of land uses within each TAZ
- trip distribution: person trips generated by each TAZ that will travel to each of the other TAZs within the metropolitan area
- mode split: travel mode of the person trips, including single-occupant auto, multiple-occupant auto, transit, or a non-motorized mode such as walking or bicycling
- traffic assignment: the roadways used for vehicular travel between TAZs.

The TRAVEL/3 model incorporates land use and transportation assumptions for the Metropolitan Washington region, using the same algorithms as applied by the Metropolitan Washington Council of Governments (MWCOG) for air quality conformity analysis. Figure 27 shows the relationship of Montgomery County to the regional travel demand network, featuring the coding of street network characteristics to reflect the general level of adjacent development density

Figure 27: Travel/3 Model Network Typology



The TRAVEL/3 provides system-level results that are used directly to obtain the Policy Area Mobility Review forecasts for the County's Policy Area Transportation Review. The system-level results are also used as inputs to the finer grain analytic tools described below.

The second level of analysis consists of post processing techniques applied to the TRAVEL/3 forecasts, as described in NCHRP Report 255. These techniques include refining the morning and evening peak hour forecasts to reflect a finer grain of land use and network assumptions than included in the regional model, such as the location of local streets and localized travel demand management assumptions. The NCHRP 255 analyses are used to produce the cordon line analyses.

The third level of analysis is intersection congestion, using the Critical Lane Volume (CLV) methodology described in the Department's Policy Area Mobility Review/Local Area Transportation Review (PAMR/LATR) Guidelines.

Travel/3 Forecasting Assumptions

The *White Flint Sector Plan* forecasts assumed the following parameters:

- A 2030 horizon year, the most distant horizon year for which forecast land use and transportation system development is available.
- Regional growth per the MWCOG Cooperative Forecasting Process. The most current round of Cooperative Forecasts was used (Round 7.0 for the initial forecasts in early 2007 and Round 7.1 for the remaining forecasts in fall 2007 and early 2008. The Round 7.1 forecasts reflect the recommendations of the Base Realignment and Closure (BRAC) Commission as of August 2007, including 2,500 new employees at the National Naval Medical Center.

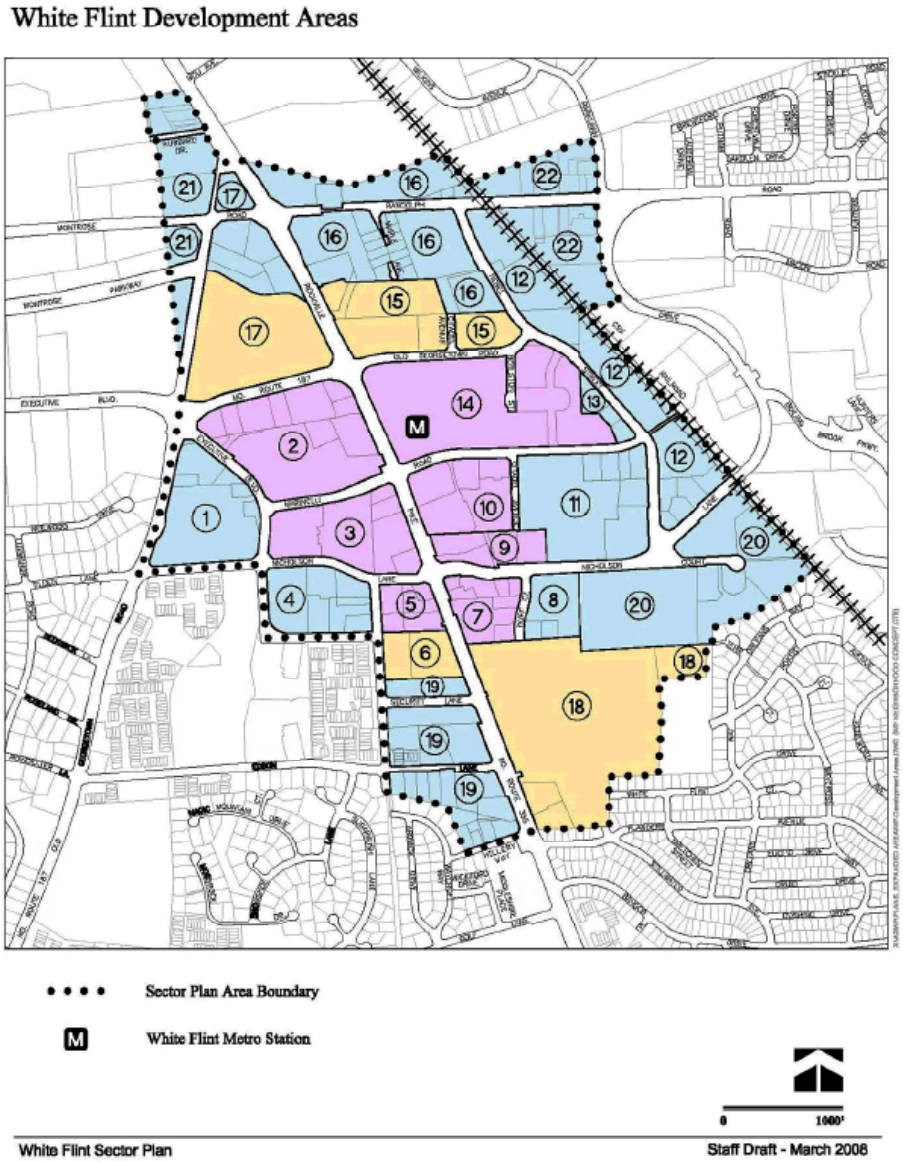
    - For theWashington region, the Round 7.1 forecasts include an increase from 3.0 million jobs and 1.9 million households in 2005 to 4.2 million jobs and 2.5 million households in 2030.
    - For Montgomery County, the Round 7.1 forecasts include an increase from 500,000 employees and 347,000 households in 2005 to 670,000 employees and 441,300 households in 2030.
    - For the Plan area, the Round 7.1 forecasts include an increase from 5.6 million square feet of development and 2,100 households in 2005 to 7.9 million square feet of development and 6,000 households in 2030.
- Transportation improvents in the regions's Constrained Long Range Plan (CLRP), a fiscally constrained transportation network. Notable projects assumed to be in place for the Plan's buildout include:
    - elimination of the WMATA turnback at Grosvenor
    - the Corridor Cities Transitway from Shady Grove to Clarksburg
    - the Purple Line between Bethesda and Silver Spring
    - the Montrose Parkway, including an interchange at Rockville Pike
    - the Intercounty Connector
    - express toll lanes on I-270 from I-370 to the City of Frederick.

Local Area Modeling Process and Assumptions

The Department's Local Area Modeling (LAM) process uses NCHRP Report 255 techniques to convert the TRAVEL/3 system level forecasts to intersection-level forecasts. The LAM process is then used as a pivot-point technique to reflect changes to the localized land use or transportation network, providing both cordon line and network analysis results.

The TRAVEL/3 model represents the White Flint Metrorail Station Policy Area as two transportation analysis zones (TAZ). The White Flint LAM disaggregates these two TAZ into twelve subzones, and the Sector Plan area is represented by 20 subzones as indicated in Figure 28.

Figure 28: White Flint Local Area Model Subzones



The LAM process uses trip generation rates that are customized to reflect both existing conditions and future changes, considering both the land use types and changes in travel behavior. Figure 29 shows the trip generation rates used in the LAM.

Figure 29: Local Area Model Peak Hour Trip Generation

Land Use	Units	AM	PM
Office (at 26% NADMS)	1000 square feet	1.36	1.28
Office (at 39% NADMS)	1000 square feet	1.22	1.16
Retail (at 26% NADMS)	1000 square feet	0.70	1.75
Retail (at 39% NADMS)	1000 square feet	0.67	1.70
Industrial (at 26% NADMS)	1000 square feet	1.10	1.10
Industrial (at 39% NADMS)	1000 square feet	1.03	1.03
Other Commercial (at 26% NADMS)	1000 square feet	1.30	1.30
Other Commercial (at 39% NADMS)	1000 square feet	1.21	1.21
Multifamily residential	dwelling unit	0.40	0.46

These trip generation rates reflect a combination of Local Area Transportation Review rates for typical development in Metro Station Policy Areas such as White Flint and were calibrated to match the observed traffic counts, considering the amount of through traffic in the roadway network so that the LAM volumes at the network cordon line are within two percent of observed count data for both morning and evening peak hours.

The trip generation rates shown in Figure 29 are generally lower than those found in the Institute of Transportation Engineers (ITE) trip generation report, particularly for commercial land uses. The commercial rates are comparable with the LATR/PAMR Guidelines for the Silver Spring, Bethesda, and Friendship Heights CBDs. They reflect the fact that ITE rates for most commercial locations do not have White Flint's transit availability and usage.

The residential trip generation rates are not as high as the ITE rates because the ITE rates for multifamily housing do reflect the fact that most multifamily housing units have, almost by definition, sufficient density to support transit service.

Finally, the retail trip generation rates in White Flint, similar to those in the Bethesda and Silver Spring CBD, incorporate a discount for pass-by and diverted-link trips.

4. Alternatives Considered

A. Timeline

The Sector Plan studies began in fall 2006. The analysis of alternative land use and transportation system scenarios followed the iterative process summarized below. Additional details and presentation materials are available at MontgomeryPlanning.org.

- Summer 2006: Development and evaluation of alternative concepts for Rockville Pike as part of the MD 355/I-270 Corridor Study, with a status report to the Planning Board on March 7, 2007.
- Spring 2007: Analysis of three development scenarios—minimal, moderate, and great change—and multiple local street networks, culminating in a status report to the Planning Board on October 8, 2007.
- Fall 2007: Refinement of the development proposals in the moderate land use scenario and review of an local street system expanded beyond the Sector Plan area, culminating in a recommended plan concept report to the Planning Board on January 31, 2008.
- Spring 2008: Analysis of alternative land uses proposed by property owners and alternative implementation and financing proposals, culminating in preliminary recommendations to the Planning Board on September 11, 2008 and the December 2008 Public Hearing Draft Plan.

B. Land Use and Network Alturnatives

Figure 30 shows the land use alternatives considered in the development of the *White Flint Sector Plan*.

Figure 30: Land Use Scenarios Considered During Plan Development

Date	Scenario	Scenario Title in Analysis Database	Commercial Square Feet	DU	Cordon line volume
10/2006	Existing	Scenario 0	5.6m	2,100	13,000
	MWCOG Forecast Level 2030	Scenario 1	7.9m	6,000	Not tested
2/2007	1992 Plan	Scenario 2	11.5m	6,400	17,900
4/2007	Minimal Change (Scenario 1)	Scenario 3	13.8m	10,900	20,800
4/2007	Moderate Change (Scenario 2A)	Scenario 4	14.0m	13,400	21,200
4/2007	Great Change (Scenario 3)	Scenario 5	20.1m	20,500	27,900
4/2007	Moderate Change with 80% Residential (Scenario 2B)	Scenario 6	9.7m	17,300	17,900
8/2007	August 2007	Scenario 7	11.4m	12,600	18,700
12/2007	Preferred January 2008	Scenario 8	11.6m	14,000	19,400
3/2008	Optional FAR 4	Scenario 9	17.6m	16,500	25,100
4/2008	April 15	Scenario 10	14.6m	16,300	22,100
6/2008	June 6	Scenario 11	13.0m	12,600	20,200
6/2008	June 13	Scenario 12	13.9m	12,299	20,900

Because each land use generates a different number of trips, there is a non-linear relationship between the amounts of residential and commercial development and their cordon line volumes. Residential uses generate fewer vehicle trips per square foot than do commercial uses. Figure 31 shows this relationship graphically.

Scenario 12 has approximately 13.9 million square feet of commercial space and about 14.8M square feet of residential space, a total nearly 29 million square feet, of which about 52 percent is residential. This is one of the points located along the blue line in Figure30. If a development is more residential, more total development can be accommodated with the same peak hour trip generation impact. For instance, at 55 percent residential, the Plan could accommodate 30 million square feet of development and at 70 percent residential, the Plan could accommodate 40 million square feet of development. At more than 80 percent residential, the congestion constraints would change as the Plan would become more of a housing resource than a job resource and the peak load would be for traffic heading into the Plan area (or home) during the evening peak period.

The Plan identifies a zoning development capacity of nearly 43 million square feet, assuming that all properties build to the theoretical maximum of the proposed CR Zone. Full buildout, however, is not realistic for two reasons. First, market forces and site constraints rarely permit full buildout of a given zoning capacity; observed yields across a family of zones or in mature master plan areas tend to be around two-thirds of the capacity.

Second, the White Flint staging plan identifies caps for each of three stages beyond which the Planning Board will not approve additional development.

Figure 31: Jobs–Housing Ratio Effect on Plan Trip Generation

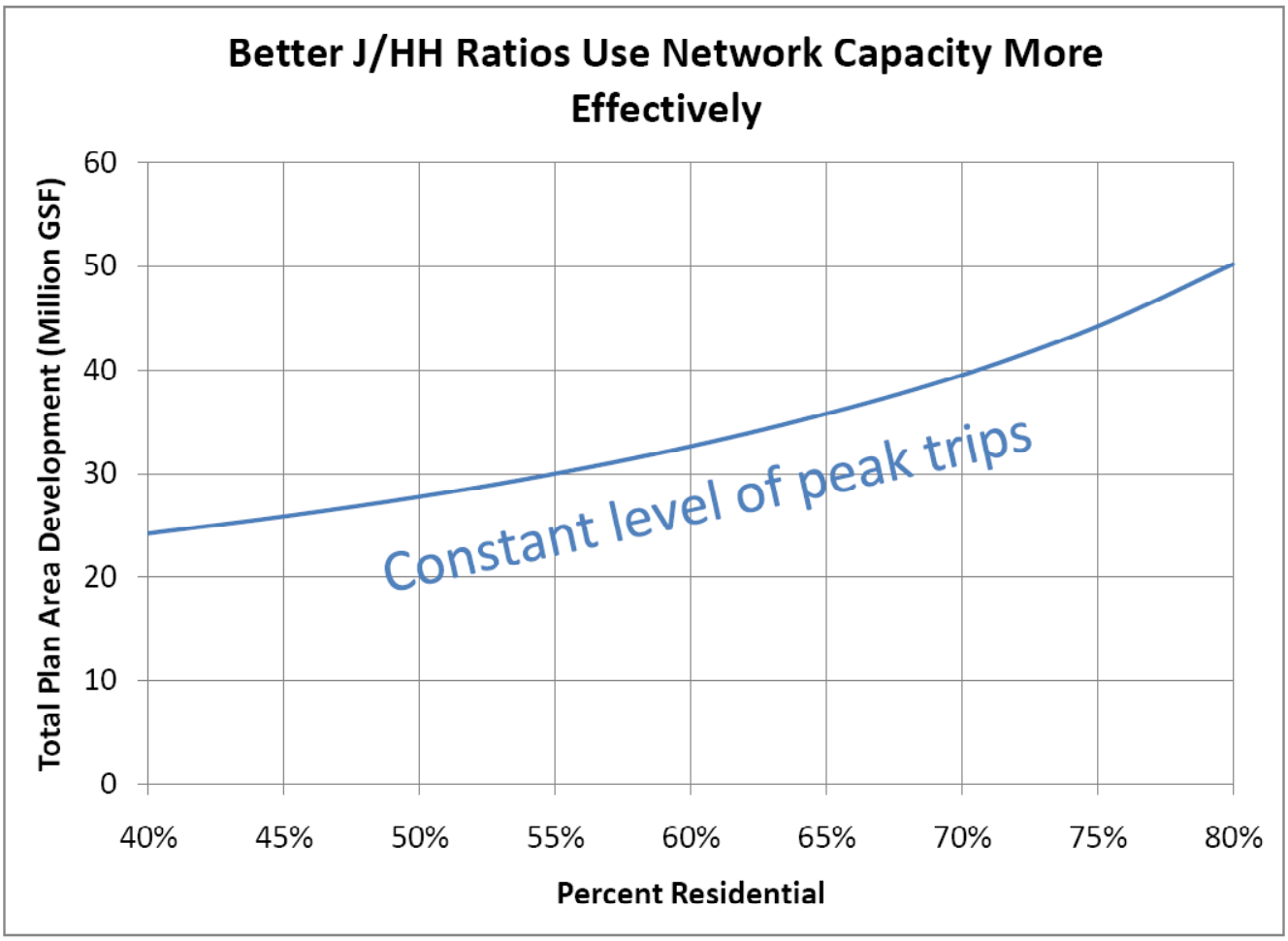


Figure 32 describes the street network concepts considered during Plan development.

Figure 32: Street Network Concepts Considered During Plan Development

Timeframe	Network Name	Concepts
Fall 2006	0	Existing conditions
Fall 2006	V1	Constrained Long Range Plan – includes Montrose Parkway, Nebel Street Extended, Chapman/Citadel Avenues
Summer 2007	A1 thru A7	New local streets – evolved according to local land uses
Summer 2007	B	New local streets plus Rockville/ Woodglen one-way couplet
Summer 2007	C	New local streets plus Main/Marinelli and Nicholson/Executive one-way couplets
Summer 2007	D	New local streets plus Nicholson/ Executive, Old Georgetown/ Marinelli, and southbound Old Old Georgetown one-way couplets
Summer 2007	E	New local streets plus Rockville/ Woodglen one-way couplet
Fall 2007	F	New local streets plus Rockville/ Woodglen and Old Georgetown/ Main one-way couplets
Spring 2008	G	Glatting Jackson network (without Randolph crossing CSX at grade)
Spring 2008	H1 thru H2	Glatting Jackson network plus Montrose Parkway interchange

The Plan recommendations combine Scenario 12 and roadway network A7, shown in Figure 33. Current conditions are shown in Figure 34 for comparison purposes. The recommended Plan in Figure 33 contains several advantages as compared to the existing network in Figure 34:

- a finer grain of streets provides walkable block lengths and continuity with the Nebel Street, Old Georgetown Road, and Executive Boulevard extensions
- the Montrose Parkway provides additional connectivity to I-270 and across the CSX tracks for both through and local traffic
- a reduced number of vehicle travel lanes along Rockville Pike improves the pedestrian experience.

Figure 33: Scenario 12 Roadway Network

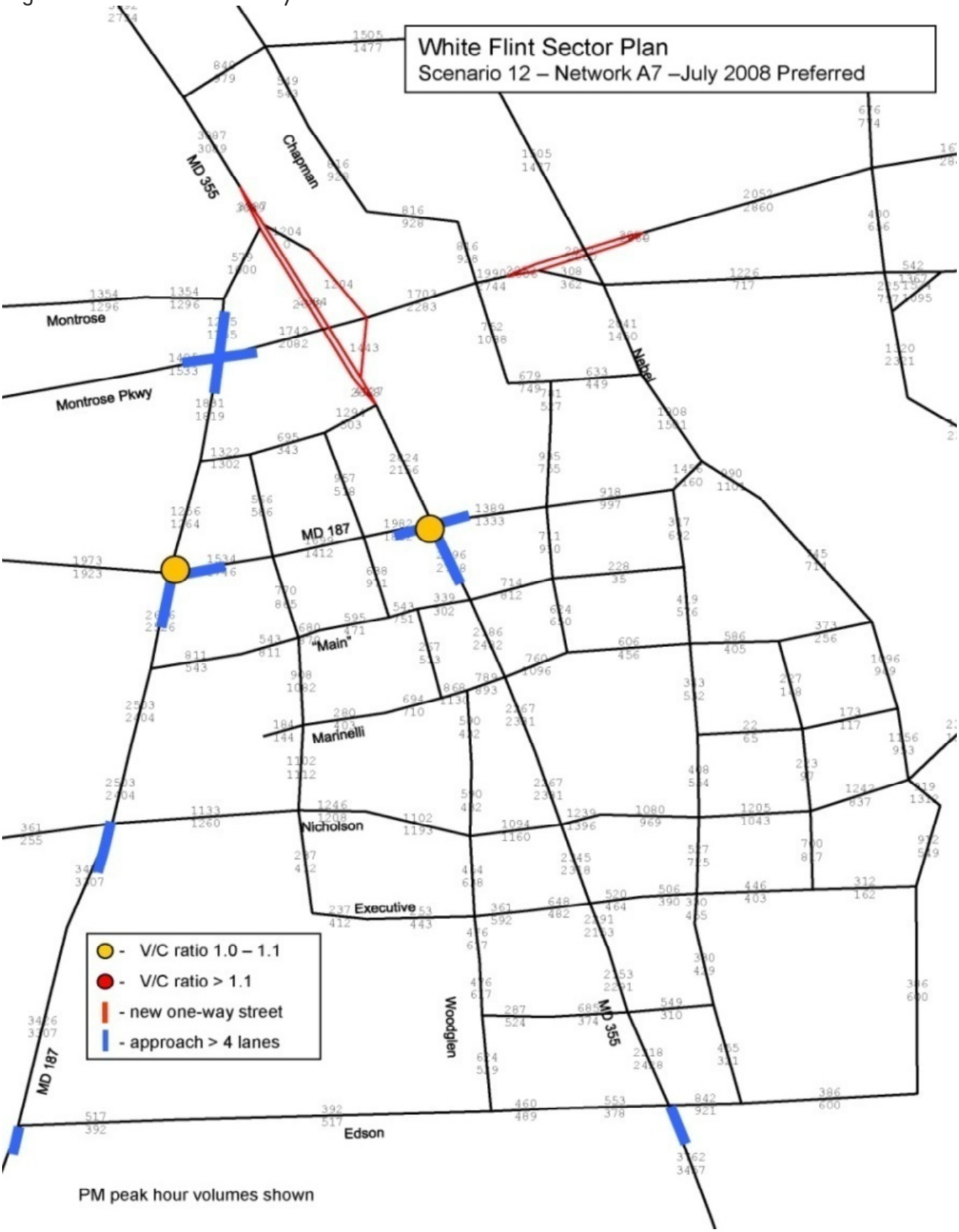
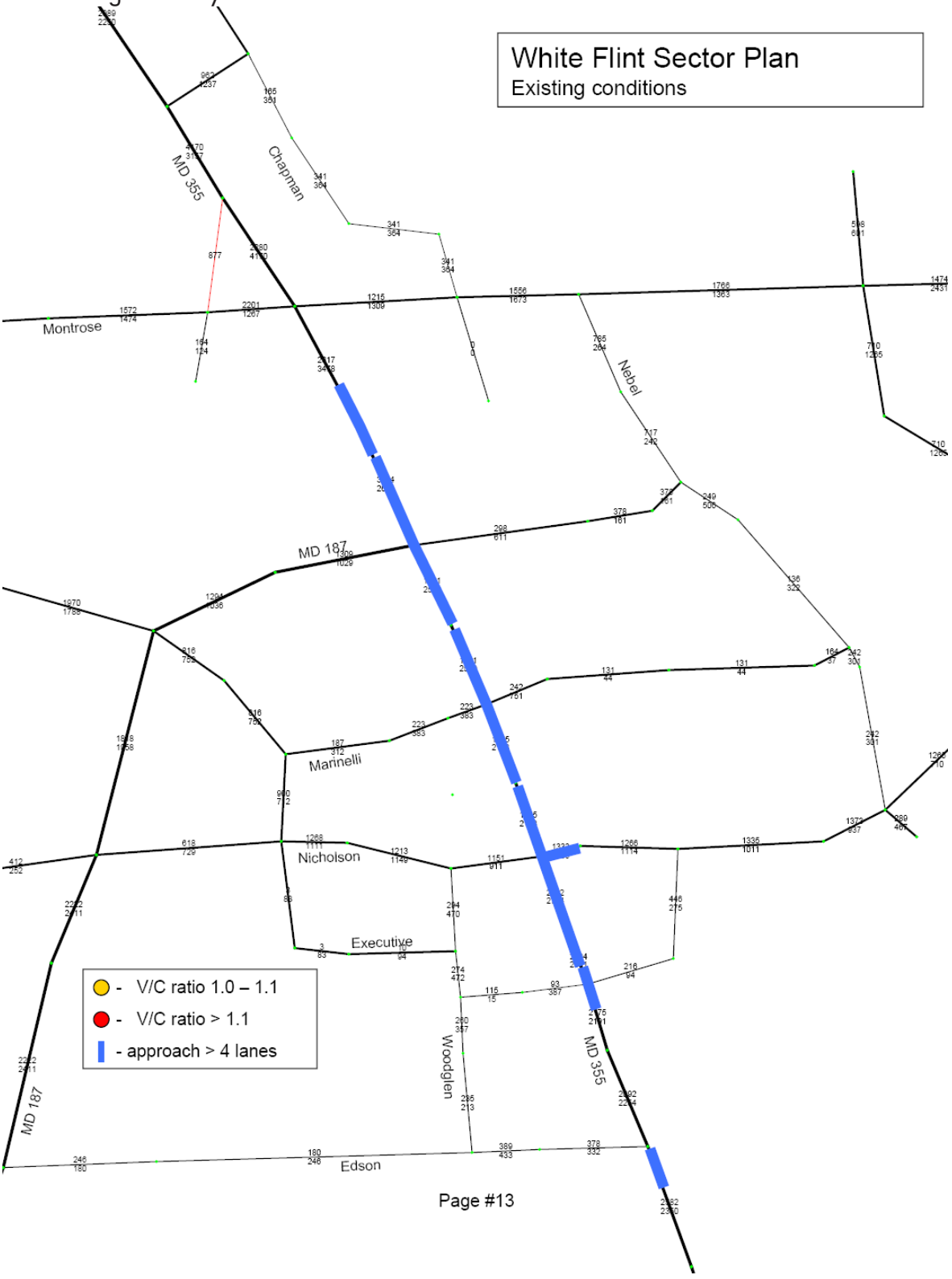


Figure 34: Existing Roadway Network



C. Concepts Tested But Not Incorporated

During the development of the Plan, several network concepts were evaluated as described in the following paragraphs.

Non-Auto Driver Mode Share of 50 Percent

For a given level of development, the vehicular traffic burden can be reduced by reducing the percentage of trips made by auto drivers. Walkers, bikers, transit users, and carpool passengers are all "non-auto drivers."

Figure 35 compares evening peak hour, outbound vehicle trips generated by White Flint development for three development scenarios in Figure 24:

- The 1992 Plan (Scenario 2)
- Alternative 2A (Scenario 4)
- Alternative 3 (Scenario 5)

And three levels of NADMS:

- The current level of 26 percent
- The recommended level of 39 percent
- The highest level achieved in the County (Silver Spring) of 50 percent

Figure 35: Trip Generation Sensitivity to Mode Share Assumptions

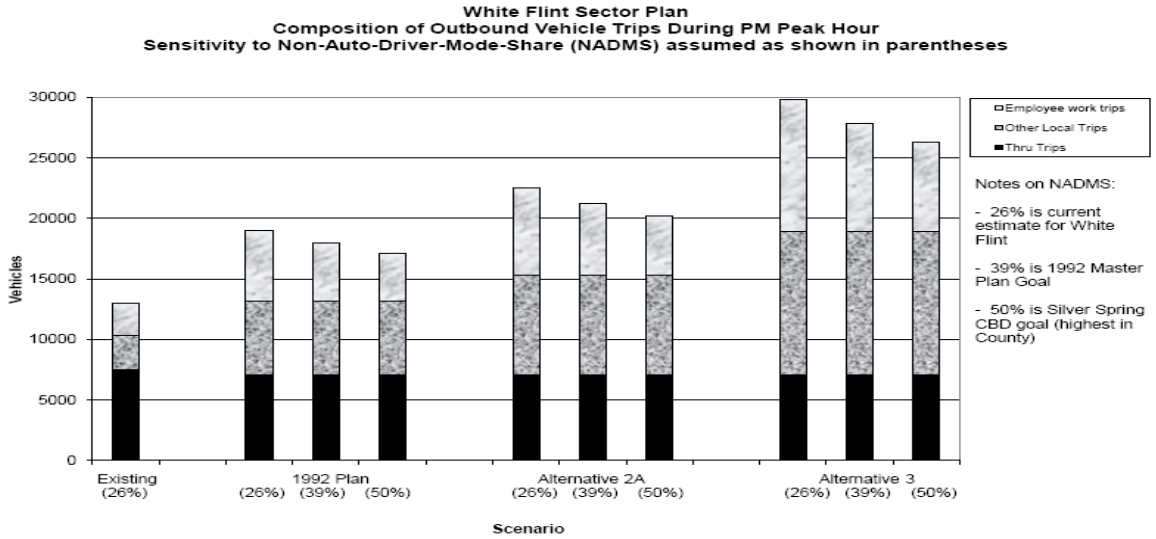


Figure 35 yields two conclusions:

- Adjusting employee mode shares in White Flint can take hundreds of peak hour, peak direction vehicles off the roadway network. Alternative 2A is similar to the Plan recommendation and the difference between the current 26 percent NADMS (with a cordon line volume of 22,400 vehicles) and the proposed 39 percent NADMS (with a cordon line volume of 21,200 vehicles) is that the higher NADMS has 1,200 fewer peak hour vehicles.
- Changing mode share goals by themselves, however, will not offset all the traffic growth by master planned development. For each of the three levels of development shown, the variation in traffic volumes generated by the different TDM levels is not as great as the variation in traffic generated by different land use scenarios themselves.

Staff believes that the 39 percent NADMS is achievable in White Flint given the range of parking management and TDM strategies noted in Figure 1. While the Silver Spring CBD is able to achieve a 50 percent NADMS, staff does not find this achievable in White Flint for three reasons.

- The Silver Spring CBD is currently served by express bus service along the US 29 corridor and by a high level of bus-to-bus transfer at the Silver Spring Transit Center where 34 bus bays are planned to accommodate over 90,000 transit boardings per day.
- The Silver Spring CBD is approximately three miles closer to the regional core.
- The Silver Spring CBD has a greater amount of transit-dependent households, both within the adjacent policy areas and in nearby commuter sheds.

Realigning the North Bethesda Transitway

The North Bethesda Transitway is a master-planned transitway connection linking Rock Spring Park to the Grosvenor Metrorail station. The study team considered revising the North Bethesda Transitway alignment to connect to the White Flint Metrorail station rather than to the Grosvenor Metrorail station. This option was not recommended for two reasons.

- The White Flint Metrorail station is approximately one mile farther from Rock Spring Park than is the Grosvenor Metrorail station. This additional distance would both reduce the effectiveness of the connection for Rock Spring Park users as well as increase the cost of the transitway alignment.
- An effective transitway connection would be more feasible at the Grosvenor Metrorail station based on the Metrorail location (aerial versus below grade) and the amount of immediately adjacent development.

Alternative Treatments along Rockville Pike

During the initial development of transportation network concepts, staff evaluated a variety of concepts for Rockville Pike (Figure 36) based on their effect on transportation system performance, their effect on the pedestrian experience and character of the Pike, and their expected fiscal and community impacts.

Figure 36: Alternative Treatments for Rockville Pike

Comparison of Alternative Treatments for Rockville Pike
(prototype considering section from Old Georgetown to Nicholson) – June 25, 2007 DRAFT ver.3

Alternative	Description	Peak Capacity	Safety and Efficiency	Pedestrian Experience	Character	Community disruption	Cost[1]	Most applicable for
Do nothing	6 lanes	Fair	Good	Poor	Poor	None	$0	
Streetscape	Utilities, trees, bricks	Fair	Good	Fair	Fair	Minor	$20M/mi	
Boulevard	50' median for landscaping, perhaps future transit	Good	Good	Good	Good	Minor	$50M/mi	
Add a lane	8 lanes	Good	Fair	Poor	Poor	Moderate	$50M/mi	
One-way pair[2]	3 NB on Pike plus 3 SB on Woodglen	Good	Good	Good	Good	Substantial	$100M/mi	CBD land uses and densities with grid street availability
Multiway Boulevard	6 lanes +2 lanes and parking in local roadway	Good	Fair	Good	Good	Moderate	$100M/mi	Low density land uses requiring frontage/parking
Grade separate (Pike below)	Single intersection interchange	Good	Good	Excellent	Excellent	Moderate	$100M	High volume arterial "rungs" located between urban centers
Depress Pike below deckover	Old Georgetown - Marinelli	Good	Good	Excellent	Excellent	Moderate	$250M	

[1] Reflects judgment based on sampling of roughly comparable projects
[2] Cost estimated for three-block section but community disruption reflects southward terminus at Edson Lane.

Initial stakeholder participation confirmed the staff position that a "do nothing" alternative would not satisfy the need to improve the pedestrian experience and change the character of the Pike through good design.

One proposal incorporated line-haul light-rail transit (LRT) in a 50-foot wide median along Rockville Pike. This concept was not pursued because:

- Metrorail will provide sufficient line-haul services in the corridor
- the capital costs and space requirements associated with LRT would increase implementation costs and right-of-way requirements
- coordination would be needed with adjacent sections of the Pike outside the Plan area to develop an independent operating segment.

Staff found that an additional general purpose lane to increase vehicular capacity would also exacerbate the pedestrian experience and character concerns.

Proposals to convert Rockville Pike and Woodglen Drive into either a one-way couplet or a multi-way boulevard (with continuous service roads) would increase capacity but be difficult to implement. Similarly, proposals for depressing the Pike below grade could greatly enhance the local character and experience, but at a prohibitively high cost.

The review of concepts shown in Figure 36 helped direct the Plan recommendations toward the boulevard treatment included in the draft Plan.

Transportation System Concepts Proposed by Glatting Jackson

In November 2007, a group of private sector interests hired the transportation consulting firm Glatting Jackson to develop a conceptual local street network. Glatting Jackson held a design charrette and produced the network shown in Figure 37. Their network reflects many local street concepts already developed, and included new concepts that staff had not previously entertained:

- stop construction of the Montrose Parkway interchange
- raise Nebel Street to intersect Montrose Parkway at grade at the elevation of the Montrose Parkway bridge across the CSX tracks
- extend the north/south portion of "Old" Old Georgetown Road north across Montrose Road as a six-lane road to connect to Rockville Pike near Bou Avenue
- extend the east/west portion of Old Georgetown Road east across the CSX tracks to intersect a realigned Randolph Road at Parklawn Drive
- widen Rockville Pike to incorporate back-in angled parking and a fourth travel lane that would provide parking maneuvering space.

Figure 37: Glatting Jackson Roadway Network Concept

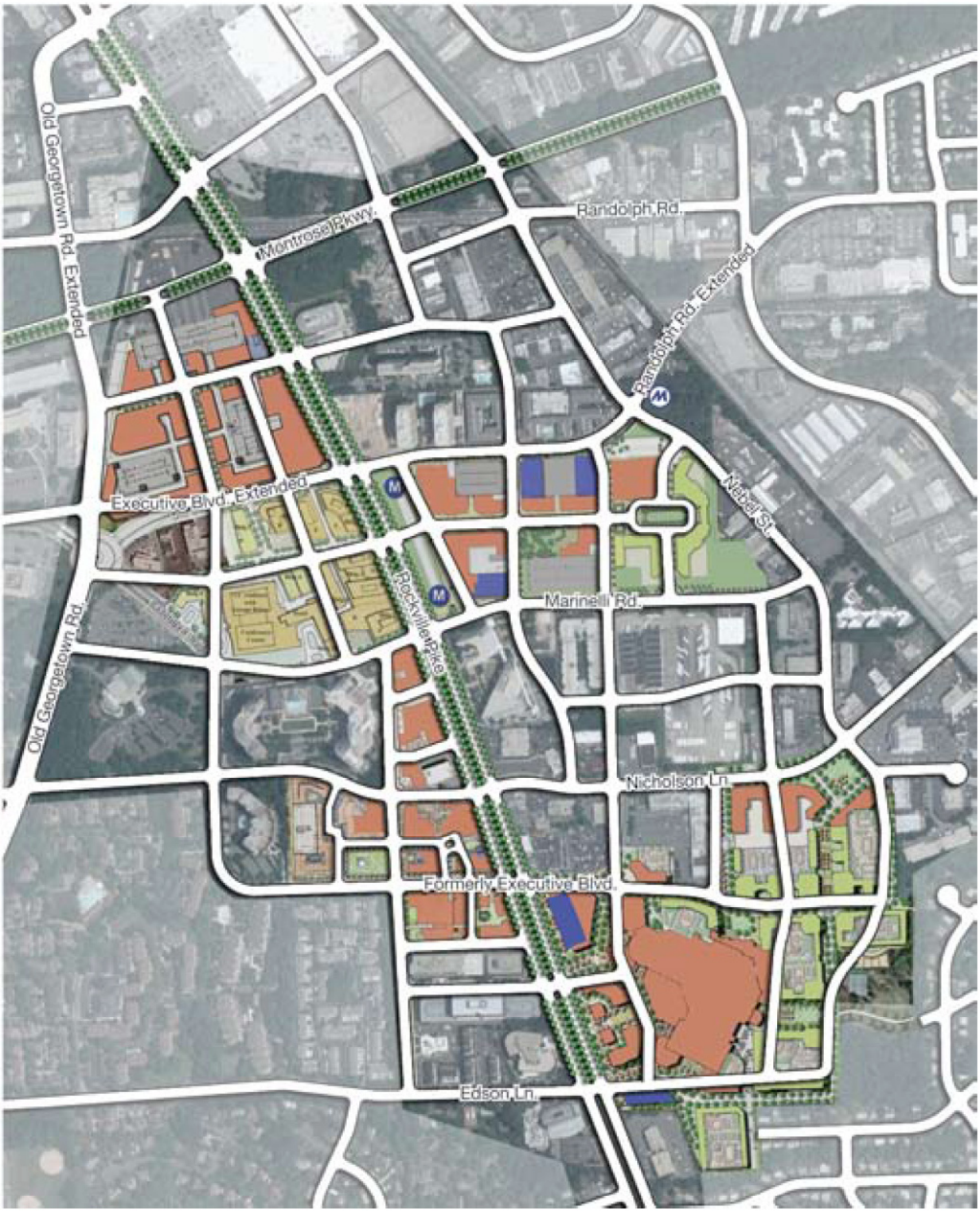


Figure 38 summarizes the staff's evaluation of removing the Montrose Parkway interchange. The analysis showed that an at-grade system of roadways would achieve a superior urban design outcome, but would not provide superior mobility and would introduce substantial uncertainty into the planning process, take several years longer to implement, and have higher capital costs.

The primary limitation of the Glatting Jackson network is that the two proposed roadway extensions had substantial implementation challenges.

- The northward extension of "Old" Old Georgetown Road would pass directly to the west of the Monterey high-rise condominium, removing off-street parking spaces and introducing through traffic into a residential enclave.
- The eastward extension of Old Georgetown Road would pass across or adjacent to the Pepco substation on Parklawn Drive.

Figure 38: Montrose Parkway Interchange Sensitivity Analysis

White Flint Sector Plan
MD 355 / Montrose Parkway interchange sensitivity analysis
March 13, 2008 DRAFT

The matrix below provides a comparison between the programmed MD 355 / Montrose Parkway interchange and the contemplated replacement of the interchange with a more robust network of urban streets in the vicinity. Mobility conclusions based on analysis of land use scenario recommended to Planning Board 1/31/08.

Objective	Interchange	Network of Streets	Objective better achieved by
Provide local mobility	Travel/congestion focused on major highway corridors; four intersections have wide (> 4 lane) approaches to meet demand	Travel and congestion dispersed across greater number of streets; six intersections have wide (>4 lane) approaches to meet demand	Neither; both achieve objective by different means
Provide regional access	East-west connection across White Flint encouraged within Montrose Parkway corridor with greenway treatment and access management	*Depends upon proposed land use changes and shared-use path treatment*	*Unknown*
Urban design	Reduced pedestrian connectivity at interchange; design may discourage walking	*Depends upon proposed land use changes and shared-use path treatment*	Network of Streets
Property removed from tax rolls	6 acres for interchange (at ~2 FAR on average)	18 acres for local streets (at ~1 FAR on average)	Interchange
Capital cost	$50M programmed by state, local cost ~$1M (two years interest on $14M)	$50M plus right-of-way, not programmed; local cost ~$40M+	Interchange
Approval process (feasibility, community acceptance, funding)	Completed	Not begun	Interchange
Completion date	2011	~2018	Interchange

The idea of realigning Executive Boulevard and Old Georgetown Road, connecting Old Georgetown Road to Montrose Parkway via "Old" Old Georgetown Road, was incorporated into the Plan recommendations.

Staff finds that while back-in angle parking can be an effective traffic and parking management solution on roadways with low traffic volumes, it is not appropriate to introduce backing maneuvers on a major highway with 50,000 vehicles per day. The concept to include an auxiliary lane which could, during off-peak times, be used for parallel parking was incorporated into the Plan concept for Rockville Pike.

Roundabout at Old Georgetown Road and Executive Boulevard

In spring 2007, Master Plan Advisory Group advisory members proposed a roundabout at the junction of Old Georgetown Road and Executive Boulevard that could potentially reconnect "Old" Old Georgetown Road as a fifth leg in the intersection. Staff evaluated the performance of the roundabout using FHWA

planningguidelines and concluded that traffic volumes for Land Use Scenario 4 would exceed the capacity of a two-lane, at grade roundabout by approximately 50 percent. A roundabout that included grade-separation of Old Georgetown Road and right-turn channelization could accommodate forecast traffic flows but would require prohibitive amounts of right-of-way (for local access ramps) and capital cost.

Rockville Pike/Nicholson Lane Interchange

The 1994 Plan recommends two grade separated interchanges along Rockville Pike in the Plan area, at Montrose Parkway and at Nicholson Lane. Following approximately 10 years of planning and design studies by the State Highway Administration, the Montrose Parkway interchange is currently under construction, located within a 300-foot wide right-of-way originally reserved for an Outer Beltway alignment.

The Nicholson Lane interchange has not yet been the subject of detailed study and does not benefit from previously reserved right-of-way. During 2006, staff considered alternative interchange concepts in a tight urban diamond concept. Due to the proximity of the WMATA tunnel easement, staff determined that below-grade depressions are not feasible for either Rockville Pike or Nicholson Lane.

More important, the travel demand forecasts prepared for end-state plan conditions include levels of congestion that do not warrant the physical space or capital expense for an interchange.

Widening Montrose Parkway or Rockville Pike to Establish BRT/HOV Lanes

The examination of Land Use Scenarios 5 and 9, as well as the Glatting Jackson network concepts that provided additional capacity, demonstrated the need to consider broader network connectivity. As previously presented, the recommended 29 million square feet of development and the proposed network will result in noticeable congestion, but not severe enough to cause adverse impacts such as neighborhood cut-through traffic or economic impacts to White Flint businesses.

For the land use scenarios that included 40 million square feet of development, however, staff found that additional capacity would be required to connect White Flint (and the broader North Bethesda commercial core) to the interstate highway system. This capacity would need to be provided along both Montrose Parkway and Rockville Pike, and would likely consist of the conversion of these planned roadways from six to eight lanes, with the additional lanes possibly reserved for high-occupancy vehicles (HOV) and bus rapid transit (BRT). These improvements appear to be physically feasible, but would require additional right-of-way that would create community disruption and add another $100 to $150 million to the Plan's infrastructure costs. These proposals are therefore not included in the Plan.

D. Alternatives Analysis Summary

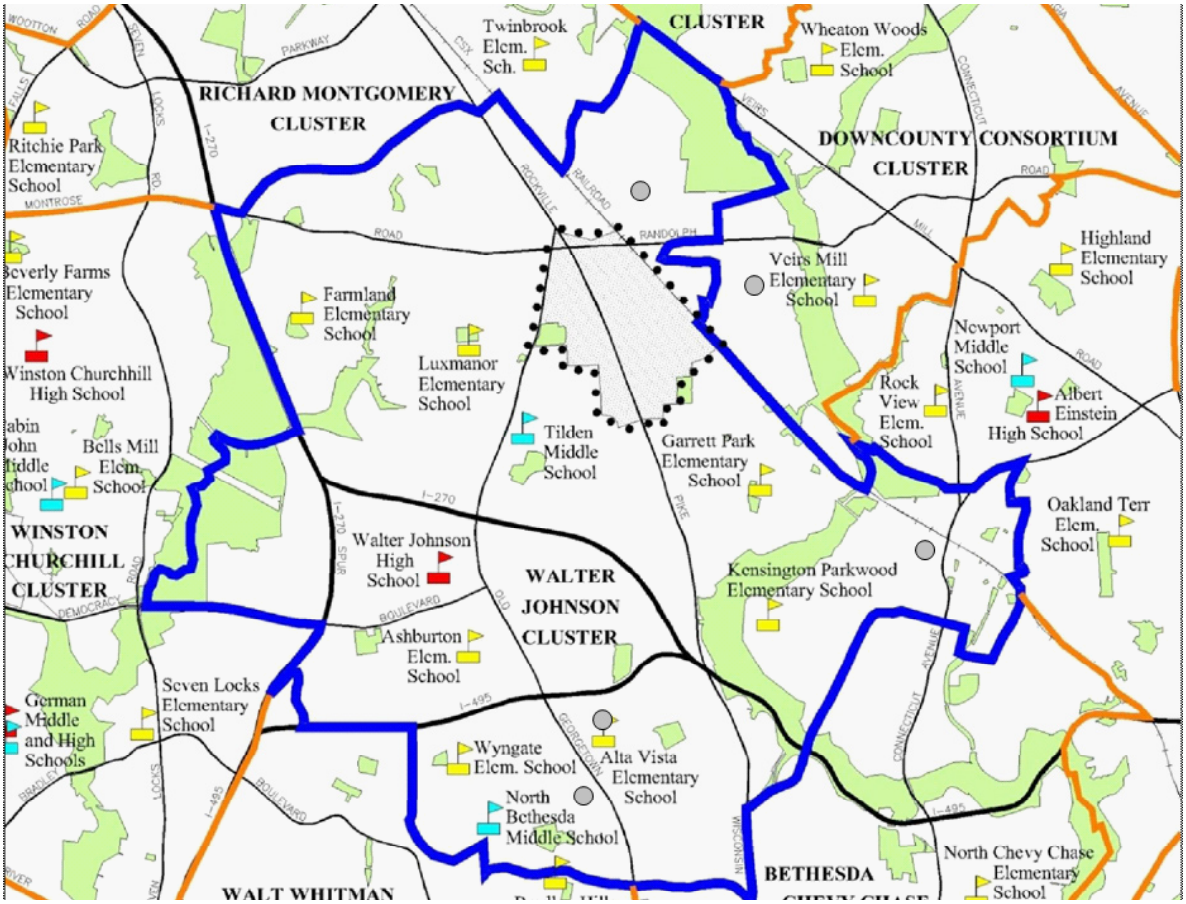
The Plan's transportation and land use recommendations were developed through an iterative process incorporating both stakeholder and Planning Board review and comments over a two-year period. The Plan proposes a practical, multimodal transportation system that provides appropriate levels of mobility for future White Flint and vicinity residents, employees, and visitors.

Appendix 7: Schools Analysis

For more Information, contact Nkosi Yearwood at nkosi.yearwood@mncppc-mc.org

The White Flint Plan area is located within the Walter Johnson High School cluster. Wyngate, Ashburton, Garrett Park, Kensington Parkwood, Farmland, and Luxmanor are the elementary schools; North Bethesda and Tilden are the middle schools (Figure 1).

Figure 1 Walter Johnson Cluster



Capital Improvement Program

Montgomery County's Fiscal Year 2009-2014 Capital Improvements Program identified modernizations and additions for the cluster's schools.

Walter Johnson High School

- A modernization is projected to be completed by 2010. It includes renovation of the existing facility, upgrades to athletic fields, and student capacity increased to 2,200.

Middle Schools

- No additions or modernizations are programmed for FY09-14.

Ashburton Elementary

- A nine-room classroom addition was approved in FY08 to increase student capacity to 660.

Farmland Elementary

- A modernization is scheduled for 2011.

Garrett Park Elementary

- A modernization is scheduled for 2012. The FY09 budget approved the planning for architectural design for a gymnasium that will be included with the modernization.

Luxmanor Elementary

- A nine-room classroom addition is scheduled for 2008-2009. A modernization is scheduled for 2018.

Wyngate Elementary

- No additions or modernizations are programmed for the FY09-14.

Public Hearing Draft

The Plan recommends 9,800 new residential units. Most of the projected residential development in White Flint will be mid- to high rise residential development. Students generated from existing and approved residential development will be absorbed into existing schools (Table 1).

Using the County wide student generation rates, approximately 410 new elementary students would result from the proposed new development (9,800 units). These projected new students cannot be accommodated within an existing elementary school. Further, the utilization rate of existing elementary schools is above 100 percent between 2009 and 2014.

There is sufficient capacity at the middle and high school levels to accommodate projected growth (Table 1).

Table 1 New Students Per Phase

County-Wide Student Generation Rates				**7/17/2009**	
Mover Rate	**K - 5**	**6 - 8**	**9 - 12**		
Single Family Detached	0.3197	0.1437	0.1307		
Single Family Attached	0.2103	0.1221	0.1066		
Garden Apartment	0.1524	0.0558	0.0725		
High Rise Apartment	0.0418	0.0388	0.0328		
The mover rate is used by MCPS for future school projections. All projects assume high-rise residential units.					
White Flint Sector Plan Student Projected Impact					
	Existing and Approved Residential Development	*Recommended Residential Development*			
	4,509 dus	9,800 dus*			
Mover Rate					
K-5	188	410			
Middle (6-8)	175	380			
High (9-12)	144	321			
** Staging density*					
Phasing Development and Student Impact					
	Phase 1	**Phase 2**	**Phase 3**		
	3,000 dus	3,000 dus	3,800 dus		
Mover Rate					
K-5	125	125	159		
Middle (6-8)	116	116	147		
High (9-12)	98	98	124		

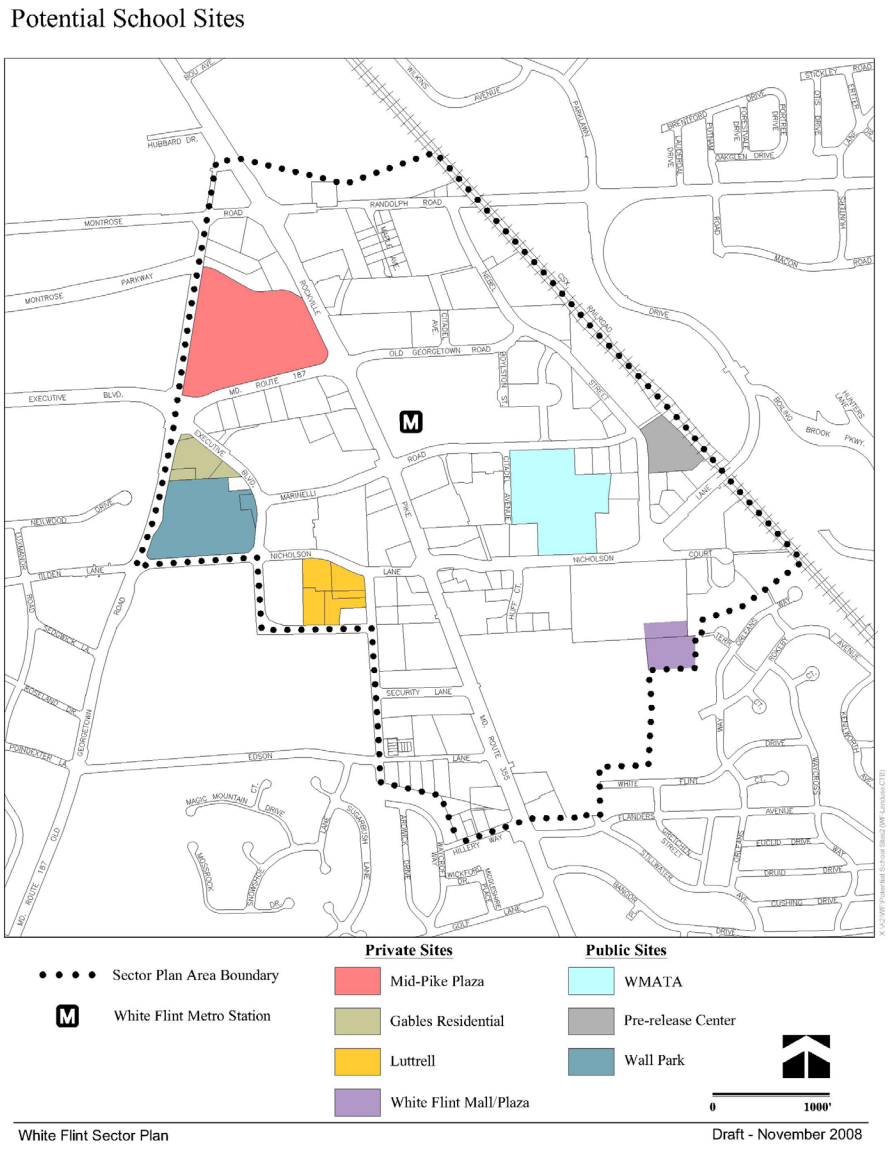
Elementary School Site Options

Planning Department and Public Schools staff evaluated four sites within the Plan area for an elementary school. All are less than the 10 to 12-acre County standard for an elementary school, ranging instead from five to six acres. Obtaining 10 to 12 acres within White Flint would be difficult and expensive, if the property would be acquired (Figure 2, Potential School Sites).

It is expected that the new elementary school will be a multi-level building to maximize land efficiencies. Planning staff used Somerset Elementary School, which is two and a half stories on three acres, as model for an urban elementary school.

Potential land dedication and proximity to residential communities and public facilities were some of the criteria in determining the preferred location for an elementary school. Staff also explored a new urban school model for the County that would integrate residential and non-residential uses or include rooftop activities. Long term lease arrangements were not considered since Montgomery County Public Schools must own the property to receive State funds.

Figure 2 Potential School Sites



Mid-Pike Plaza

This 20-acre site at the intersection of Old Georgetown Road and Rockville Pike has a commercial shopping center with small pad sites and surface parking. The future Montrose Parkway will run to the immediate north. Federal Realty Investment Trust, the property owner, plans to redevelop the property with residential and non-residential uses. An elementary school site on this property would require County acquisition of five to six acres. An elementary school next to existing and future major highways was not desirable nor was the potential cost to acquire even a portion of the property.

Luttrell/Higgins Estate

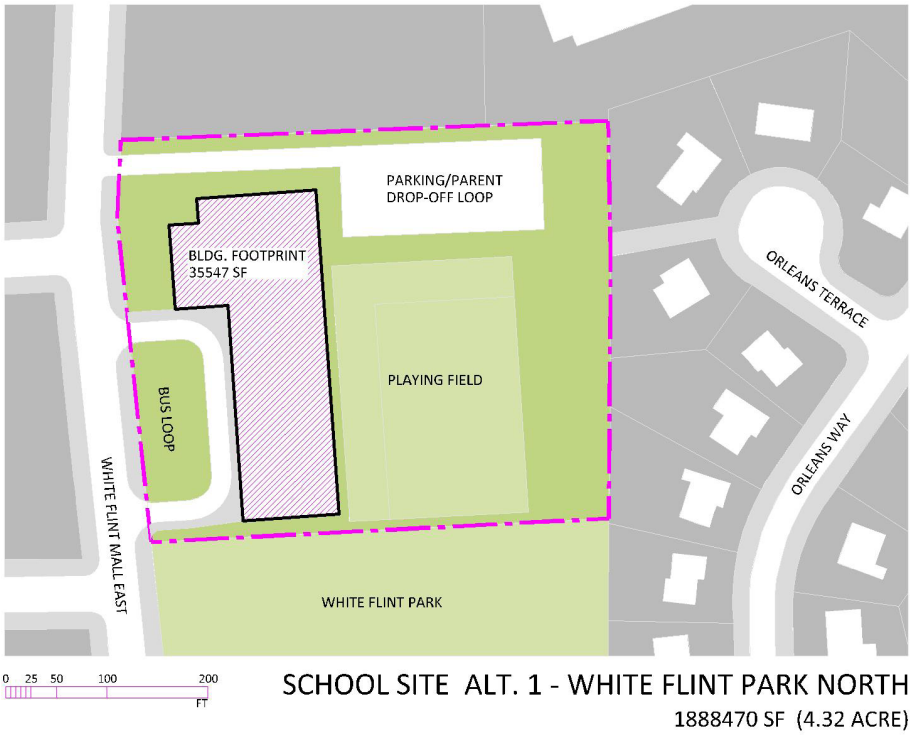
This surface parking lot, approximately 5.28 acres, is west of Woodglen Drive between Nicholson Lane and Executive Boulevard. The 1992 Plan confirmed the R-90 Zone (Single-Family Residential) and recommended the floating TSR Zone (Transit Station Residential) at 2.5 FAR. The Fallswood, a multifamily high rise residential building, is to the immediate west and Old Georgetown Village residential community is to the south. The County would have to acquire this property for an elementary school. However, there is a long-term lease agreement that limits the property's use, which will have to be addressed as part of the acquisition.

White Flint Mall and White Flint Plaza

Two portions of White Flint Mall and White Flint Plaza properties, totaling five acres, were identified as a potential location for an elementary school. Both areas are zoned R-90. An elementary school at this location would complement the neighboring White Flint Neighborhood Park and Garrett Park Estates-White Flint Park residential community.

Future residential development in the White Flint Mall district, which is south of Nicholson Lane and is the largest district in the Plan, would provide a distinct mixed-use residential community adjacent to an existing community. Dedication from the White Flint Mall property is the preferred option (Figure 3).

Figure 3 White Flint Park North



Gables

This approximately three acre site is a surface parking lot adjacent to the Montgomery Aquatic Center and Wall Park. Locating a new public use at this site would create a campus of public uses between Executive Boulevard, Old Georgetown Road, and Nicholson Lane. However, the located is not integrated with existing residential development and away from future residential development. This site would have to be acquired from the property owner since it is not large enough to provide any residual land to the property owner.

A potential public-private partnership between the Parks Department and the property owner to develop a shared parking structure and redevelop Wall Park's surface parking into an urban park, is diminished with a school at this location.

Closed School Sites

There are five closed school sites within the Walter Johnson Cluster: Alta Vista, Ayrlawn, Grosvenor Center, Kensington, and Montrose. Alta Vista and Arylawn are owned by Montgomery County and leased to private schools. Kensington is County-owned and leased to the Housing Opportunities Commission. Montrose is owned by the Board of Education and leased to a private school. The Grosvenor Center is used as a holding facility for MCPS to support school modernizations in the North Bethesda area.

Another site, located within the Downcounty Consortium, the Rockinghorse Road Center, is used for school department administrative functions. The surrounding communities have expressed interest in reclaiming the remainder of this 16-acres site for a school. For MCPS to reclaim a former school site existing uses would have to find alternative locations and substantial modifications would have to be made to the facilities (Table 3).

Table 3 Closed School Sites in the Walter Johnson Cluster

	CLOSED SCHOOLS IN WALTER JOHNSON CLUSTER								
	SCHOOL NAME (#)	CURRENT OWNER/TENANT	ACRES	PARK ADJ	CLRMS	SF	BLT	CLSD	COMMENT
1	ALTA VISTA ES (407)	MCGOVT	3.53	NO	12	26,369	1935	1976	This site is slightly smaller than
	5615 BEECH AVENUE	BETHESDA COUNTRY DAY SCHOOL							Somerset ES. Building would need
	BETHESDA 20817								replacement to larger model.
									Full-size ballfields will not fit.
2	AYRLAWN ES (421)	MCGOVT	3.08	YES	11	27,735	1961	1982	Recreational elements are located
	5650 OAKMONT AVENUE	BETHESDA YMCA							in adjacent Ayrlawn LP. Building
	BETHESDA 20817								would need substantial enlargement.
									and reconstruction
3	GROSVENOR CENTER (418)	BOE	10.21	NO	18	36,770	1955	1980	Holding facility for MCPS in support
	5701 GROSVENOR LANE	MCPS HOLDING FACILITY							of MCPS modernization program.
	BETHESDA 20814								If reopened, a replacement facility
									would be needed.
4	KENSINGTON ES (751)	MCGOVT	4.54	NO	19	45,206	1946	1982	HOC offices would need to be
	10400 DETRICK AVENUE	HOC OFFICES							relocated by County. Full-size
	KENSINGTON 20895								ballfields will not fit.
5	MONTROSE ES (225)	BOE	7.50	NO	16	38,310	1967	1982	Two tenants accommodate many
	12301 ACADEMY WAY	REGINALD S. LOURIE CENTER							MCPS special education place-
	ROCKVILLE 20852	KENNEDY KRIEGER INSTITUTE							ments. Building renovated in 1999.
	NEARBY CLOSED SCHOOL OUTSIDE WALTER JOHNSON CLUSTER								
	SCHOOL NAME (#)	CURRENT OWNER/TENANT	ACRES	PARK ADJ	CLRMS	SF	BLT	CLSD	COMMENT
6	ROCKINGHORSE ROAD CENTER	BOE	18.70	NO	28	57,639	1957	1983	International Student Admission
	4910 MACON ROAD	MCPS - ADMINISTRATION							Office and other personnel could be
	ROCKVILLE 20852								relocated to transit accessible office
									space within sector plan, if available

Appendix 8: Planning History

All County master, sector, and functional plans amend the 1964 General Plan. Comprehensive amendments are complete updates and minor amendments are undertaken to address a specific issue. This appendix summarizes the comprehensive and minor plan amendments in the White Flint Sector Plan area starting with the 1964 General Plan through the 1994 Amendment of the 1992 North Bethesda Garrett Park Master Plan.

This appendix also:
- summarizes the two previous comprehensive plans approved in 1970 and 1978
- summarizes and excerpts the 1992 Plan
- compares buildout proposed in the 1992 Plan and 2009 Draft Plan

The White Flint Sector Plan is wholly within Planning Area 30, North Bethesda Garrett Park. As with all County plans, the approved and adopted master and sector plan amendments for Planning Area 30 are guided by "…On Wedges and Corridors," the General Plan for the Physical Development of the Maryland-Washington Regional District in Montgomery County and Prince George's County, which is the framework for detailed regional planning and was approved and adopted in 1964.

1964 General Plan

"…On Wedges and Corridors," the General Plan for the Physical Development of the Maryland-Washington Regional District in Montgomery County and Prince George's County is Montgomery County's guiding planning document. The General Plan envisions the District of Columbia as the core of a radial pattern of regional urban development. Four radial corridors of dense development, each served by a rapid transit line, are to stretch outward from the District of Columbia into Montgomery County and Prince George's County. Planning Area 30 is seen as the base of a corridor that extends from Bethesda, Rockville, Gaithersburg, and Germantown. The corridor is bordered on the east by Rock Creek Park (a wedge) and the less intensely developed Potomac, Travilah, Darnestown, and Poolesville on the west and north. The spine of the corridor is Interstate 270 and the Red Line of the Metro rail system.

General Plan Refinement (1993)

In 1991 the County Council authorized a reexamination of the 1964 General Plan in the Planning Department work program and in 1993 approved the General Plan Refinement. The Plan reaffirmed the 1964 General Plan and proposed an updated wedges and corridor concept to reflect changes in County policies since 1964.

The 1993 Plan expanded the wedges and corridors concept to include an urban ring, (containing the central business districts of Bethesda, Friendship Heights, Silver Spring, and Wheaton), linked to a corridor (I-270) of urban centers (Rockville, Gaithersburg, Germantown, and Clarksburg) with suburban communities wrapped around the urban ring and lining either side of the corridor. A residential wedge buffered the agricultural wedges from the suburban communities.

The corridor concept proposed:
- developing compact mixed-use, transit serviceable centers
- achieving better access to public and private services in residential areas
- encouraging a sense community identity
- enhancing park and recreation links
- protecting environmentally sensitive areas.

1970 Comprehensive Amendment: North Bethesda/Garrett Park Sector Plan

Background

The 1970 North Bethesda/Garrett Park Master Plan examined areas within the larger North Bethesda Planning Area, including the areas covered in the 1970 Plan known as Twinbrook, White Flint (Nicholson Lane), Grosvenor, and Rock Spring. The Plan identified nine key districts (Locations 1 to 9). A large portion of the Plan area was undeveloped, especially west of Rockville Pike. The residential population was approximately 26,000. None of the future transit stations were given a geographic boundary. The Plan identified areas along the proposed transit line but did not name the station areas and considered 1,500 feet as a reasonable walking distance.

The Plan projected the following increases in residential population and employment for the Plan area:

	Population	Employment	Housing Units
1966-1975	27,900	11, 850	10, 400
1975-1990	73,400	6, 400	28,000
Totals	101,300	18,250	38,400

The Plan also projected the amount of single and multi-family residential units for the Plan area:

	Single-Family	Multifamily
1966-1975	1,600	8,800
1975-1990	2,800	25,200

White Flint Area

The Plan encouraged intense development around transit stations to maximize transit use. However, the tools to implement intense development were not available as the Plan noted:

"In some instances, however, particularly in large vacant parcels advantageously situated for future development, the existing Ordinance lacks flexibility in site development and has no way of encouraging the most desirable forms of future development. No instrument now exists within the framework of the present Zoning Ordinance which will allow and induce development of a variety of housing types or integrated and mixed commercial and residential development on the same tract." (p.20)

Land Use

The Plan divided the area into the following categories: multifamily housing and commercial areas; single-family residential areas; and mixed-use development.

The land use recommendations were:

- Multifamily development at 21-43 dwelling units per acre with some commercial development close to the transit station.

- Areas north of Wall (now Nicholson) Lane were recommended for a mix of commercial office, retail, or multifamily uses, while the remaining area was proposed for townhouses, single-family, and garden style townhouses. High rise and garden apartments were recommended for the area's northeastern and southeastern sectors since they were close to transit and MD 355.

- Areas fronting Old Georgetown Road and the Wickford subdivision were proposed at three dwelling units per acre.

Zoning

- Properties west of Rockville Pike were in the Residential, One-family (R-90), General Commercial (C-2) and Convenience Commercial (C-1) Zones. Security Lane properties were zoned Commercial, Office Building (C-O).
- Areas east of Rockville Pike were zoned Multiple-family, High-Rise Planned Residential (R-H); Convenience Commercial (C-1); Commercial, Office Park (C-P); Residential, One-family (R-90 and R-60); General Commercial (C-2); and Light Industrial (I-1).

- The Planned Development (PD) Zone was under consideration as a method to introduce a variety of housing types. No zones for transit or mixed use existed.

- The Plan considered incentive zoning provisions.

"New zoning provisions should include increases in building intensity in return for the provision of certain public amenities, such as urban open space or pedestrian access ways and other items of public benefit above the minimum requirements." (p.20)

Public Facilities

The Plan recommended several new public facilities, including schools, a fire station, and parks. The Plan recommended an elementary school site adjacent to White Flint Park-Garrett Park Estates community and the existing White Flint Neighborhood Park. It recognized that the property would develop with active recreational uses until the Board of Education had a need for the site.

The Plan also recommended two elementary schools between Rockville Pike and Old Georgetown Road; one school north of Montrose Road to serve the City of Rockville; and a junior high school adjacent to Wickford subdivision between Rockville Pike and Old Georgetown Road.

Other public facilities recommendations in the Plan were the expansion of Davis Library into a regional facility; a new fire station in the vicinity of Old Georgetown Road and Democracy Boulevard; a new park on Fleming Avenue, south of Grosvenor Lane and another south of Democracy Boulevard in the vicinity of Greyswood Road.

Transportation

At peak hours at some locations, the Plan noted that major highways operate at or above capacity, while accommodating local traffic. The Plan projected that traffic volumes by 1990 would continue to exceed the highway system's capacity in the planning area even when new roads are implemented. The Plan noted that cost limitations, impacts on existing development, and access requirements limited transportation improvements to the street network.

Rockville Pike

The Plan recommended widening Rockville Pike to a six-lane highway with a 120 feet right-of-way and service lanes with restricted access requiring an addition 30 feet of right-of-way. The service lanes would parallel Rockville Pike from Strathmore Avenue to Bangor Place.

Transit

The Plan proposed transit stations at Nicholson Lane, south of Grosvenor Tower Apartments, and at the intersection of Montrose Avenue and Rockville Pike.

Street Network

Several new streets were added throughout the Plan area, including extending of Jefferson Street from Montrose Road to Executive Boulevard and extending Tuckerman Lane to Old Georgetown Road from its present terminus north of the Grosvenor Tower Apartments.

Within the White Flint area, the Plan recommended completing a portion of Nebel Street; Marinelli Road between MD 355 and Nebel Street; and Woodglen Drive, between Wall Lane and Edson Lane.

Urban Design
The Plan did not create urban design standards. It established goals that included the following:
- "Provision of superior site design for transit areas and to encourage the development of complete urban type centers which offer environmental amenities, such as urban open space, pedestrian access ways, adequate public facilities, and light and air, so that the living, shopping, working, and recreation areas will serve the users in the most efficient and convenient manner."

Phasing and CIP
The Plan phased multifamily areas at transit areas. Multifamily development increased from 21 units per acre without transit to 43 units per acre with the implementation of transit. The Plan also used Capital Improvement Program (CIP) between 1970 and 1990 as a tool to stage development. Priorities by fiscal year were given to schools, parks and recreation areas, fire stations, sewer and water facilities, and roads.

Affordable Housing
Montgomery County did not establish an affordable housing requirement until 1974, four years after the Plan was approved. The Plan recognized the County wide effort to provide low and moderate income housing.

Minor Amendments to the 1970 North Bethesda/Garrett Park Sector Plan
- January 1972: remove service drive
- May 1973: rezone 5.8 acres
- November 1973: rezoning for parcels
- July 1974: remove service drive
- May 1976: realign roads
- December 1977: rezoning

Comprehensive Amendment: 1978 Sector Plan for the North Bethesda Area (Twinbrook, Grosvenor, and Nicholson Lane)

Background
The approved and adopted 1978 North Bethesda Sector Plan updated the 1970 North Bethesda Master Plan. It identified the three proposed transit stations for the Metrorail Red Line in North Bethesda as Twinbrook, Nicholson Lane, and Grosvenor, and proposed land use and zoning for the impact areas associated with these locations. In the case of White Flint, the transit station impact area was identified as Nicholson Lane Station and encompassed about 200 acres, of which 63 percent was vacant. The Nicholson Lane Station was later renamed White Flint. The Plan promoted new mixed uses, including office, retail, and residential development within a 10-year horizon.

The Plan recognized changes in the Plan area, including new public facilities of the Metro bus garage, Montgomery County Pre-Release Center and the open-cut, depressed White Flint Metrorail station at Marinelli Road and Rockville Pike (MD 355). It also noted the development of White Flint Mall, two office buildings on Security Lane, and the Wall-Luttrell residential development.

Land Use
The proposed land use recommendations were based upon vehicular capacity of the Plan area. West of Rockville Pike, the Plan recommended primarily residential uses and east of Rockville Pike, mixed uses, including offices, hotel, and residential development. The Transit Station, Residential (TS-R) and Transit Station, Mixed (TS-M) Zones were recommended for five large parcels near the station

The Plan recommended two land use alternatives: air rights development over the Metro facilities on the east side of MD 355 and no use of airrights if development failed to commence within two years after the station opened. Floor Area Ratio (FAR) for both options varied from 0.95 to 1.38.

Alternative A with air rights development:
- Residential: 1,600 dus (1.60 million square feet)
- Nonresidential: 1.55 million square feet
- Total: 3.15 million square feet

Alternative B without air rights development:
- Residential: 1,600 dus (1.60 million square feet)
- Nonresidential: 1.26 million square feet
- Total: 2.85 million square feet

A park school site was recommended for the area north of Nicholson Lane and Executive Boulevard. No other public facilities were recommended in the Sector Plan area.

Transportation

Accommodating new development within the capacity of the transportation system was a major issue. The Sector Plan noted that if all TS-R and TS-M properties developed at their highest potential, then congestion levels would be high. It also noted that there was more vacant land than road capacity.

In 1975, average daily traffic (ADT) on Rockville Pike was 50,000; Old Georgetown Road and Nicholson Lane at 25,000 ADT; and the Nicholson Lane and MD 355 intersection was a level of service F.

Several new roadways and improvements were recommended in the Plan:
- construction of Executive Boulevard extension between Old Georgetown Road and Nicholson Lane
- construction of Marinelli Road between Nebel Street and Executive Boulevard
- construction of Woodglen Drive between Wall Lane and Edson Lane
- construction of Old Georgetown from MD 355 to Nebel Street
- an additional lane on Nicholson Lane as it approached MD 355 intersection.

Urban Design

The Plan's urban design section provided several illustrative plans of how the TS-R and TS-M properties could redevelop. Building heights for TS-M properties were recommended at 143 feet (14 stories).

Phasing

The Plan established a two year time frame to promote air rights development once the Nicholson Lane Metro Station opened. It allowed more nonresidential development if air rights were acquired within two years, and less development, if air rights were not acquired. The Planning Board was given the authority to extend the two year time frame by a year if there was evidence that negotiations for air rights were close to completion.

Since TS-R and TS-M zones require rezoning and findings regarding adequacy of public facilities, the Plan noted this measure would ensure that development does not overburden the Plan area.

Another phasing element of the Plan was the completion of several public roads, listed in the CIP, as requirements prior to the opening of the Metro station. The Plan also recommended a monitoring program, every two to three years, which would address traffic, modal split, land use, community facilities, and environmental quality.

Minor Amendments to the 1978 Sector Plan for the North Bethesda Area (Twinbrook, Grosvenor, and Nicholson Lane)

- February 1981: delete Kraft Drive
- Grosvenor Sector Plan: amendment, July 1987
- Nicholson Lane Sector Plan Amendment, April 1988: Remove addition to Wall Park

1992 Comprehensive Amendment: North Bethesda/Garrett Park Sector Plan

The 1992 Plan revisited the three metro station locations in Planning Area 30,treating each as a sector plan. It also recommended land use and zoning for the areas outside of the three sector plan areas (Chapter 3.5 Vacant or Redevelopable Parcels, pages 72-87) as well as Garrett Park and Rock Spring.

The North Bethesda/Garrett Park Plan area extended to nine square miles and in 1990 had a population of 35,000 people living in 15,700 households. In January 1992 the area had 66,000 existing jobs with 13,316 in the pipeline for a total of 79,316 jobs and a jobs-housing ratio of approximately six jobs to one household. Overall, the 1992 Plan recommended 25,000 residential units and 103,000 jobs, resulting in projected jobs-housing ratio of four jobs to one household.

> "Residential units are recommended at all three Metro stations. Mixed uses with a significant residential component are proposed at Twinbrook and White Flint, introducing housing elements into exclusively commercial areas. The Plan also recommends rezoning property from commercial to residential and recommends residential development in several areas. Theoretically, at full buildout of all properties, North Bethesda's capacity for dwelling units and jobs would be approximately 25,000 and 103,000 respectively."

The White Flint Sector Plan covered about 200 acres and the Plan made recommendations for six properties that are now within the 2009 White Flint Plan area:

- Parcel 1: I-1 Zoning
  - Rezone from I-1 to I-4 south of Bou Avenue (the area within the 2009 Sector Plan area).
- Parcel 6: Mid Pike Plaza
  - Confirm C-2 zoning and adopt a zoning text amendment for the C-2 Zone requiring urban design review.
- Parcel 7: White Flint Plaza parking lot
  - Confirm the R-90 zoning.
- Parcels 9 and 10 : Edson Lane North and South
  - Encourage assembly and unified development for properties zoned R-90 north of Edson Lane. Recommends R-90/TDR 28, if text amendment is approved or PD-28 for 1.9 acres and PD-35 for 1.8 acres in Parcel 9. Parcel 10 should retain R-90 zoning, but is suitable for the CT Zone on a parcel by parcel basis. Plan recommends against assemblage or resubdivision.
- Parcel 11: Hillery Way
  - Confirm existing zoning (R-90 and C-2) and adopt a zoning text amendment for the C-2 Zone requiring urban design review.

The following excerpts from the 1992 Plan address land use and zoning objectives and recommendations and the urban design concept for the White Flint portion of the Plan, as well as a discussion of Rockville Pike.

PLAN OBJECTIVES

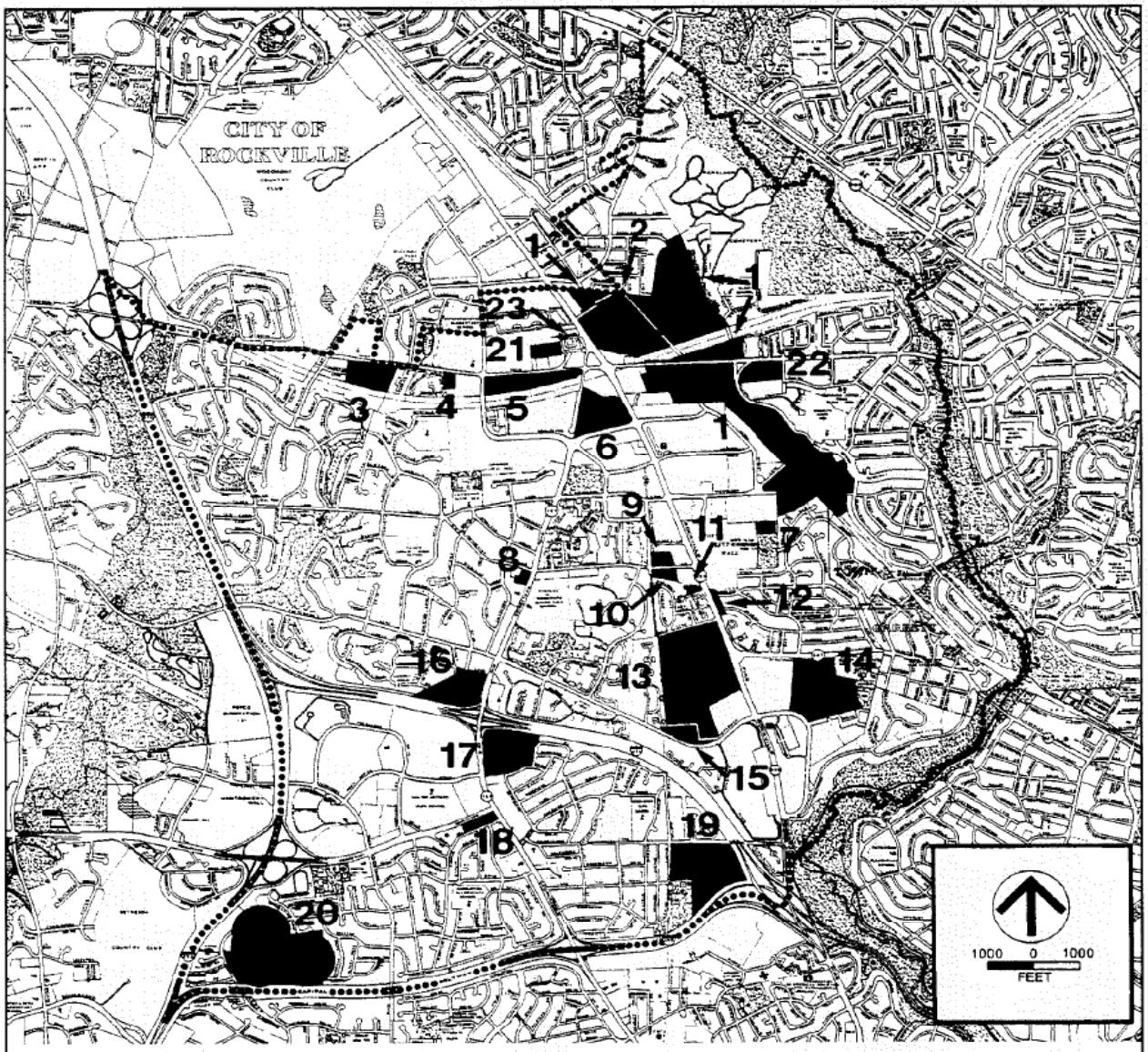
- Develop White Flint as the main urban center of North Bethesda.
- Capitalize on the public investment in the Metro system and encourage its use rather than continued reliance on the automobile.
- Promote mixed-use development near the Metro station to ensure the 24-hour vitality of the area.
- Include a significant transit serviceable residential component within the Sector Plan area.
- Develop policies to ensure a lively pedestrian environment.

PLAN RECOMMENDATIONS

- Provide a local circulation alternative to Rockville Pike by extending Chapman Avenue to meet Huff Court (see Figure 55).
- Extend Executive Boulevard east to meet Huff Court.
- Extend the Transit Station Mixed-use Zone (TS-M) to the south and to the west (see Figure 19).
- Consolidate the Transit Station Residential Zone (TS-R) on the west side of Rockville Pike (see Figure 19).

KEY VACANT OR REDEVELOPABLE PARCELS

FIGURE 24



(Outside Sector Plan Areas and Rock Spring Park)

1.	I-1 Zone Outside Sector Plans	**12.**	WMATA
2.	Montrose Crossing	**13.**	Georgetown Preparatory School
3.	Armstrong and Mervis	**14.**	Holy Cross
4.	Maryland National Bank	**15.**	Corby
5.	Wilgus	**16.**	Davis-Lux Lane
6.	Mid Pike Plaza	**17.**	Aubinoe
7.	White Flint Parking Lot	**18.**	Davis-Democracy
8.	Poindexter	**19.**	American Foresters/NRF
9.	Edson Lane North	**20.**	WMAL, Inc.
10.	Edson Lane South	**21.**	Tri-Rock
11.	Hillery Way	**22.**	Loehmann's Plaza
		23.	Chang

D. EXISTING CONDITIONS

The White Flint Sector Plan area extends to Old Georgetown Road on the west, the MARC railroad tracks on the east, the Forum apartment building on the north, and the White Flint Mall on the south.

The Sector Plan area is bisected by two major highways, Rockville Pike in a north/south direction, and Nicholson Lane in an east/west direction. The continued growth of east/west traffic will create a demand for peak hour trips that will exceed the capacity of the current intersection of these two highways.

Within the Sector Plan area, the 35-acre WMATA parcel and the 10-acre Montouri parcel comprise one of the largest areas of undeveloped land around a Metro station anywhere in Montgomery County.

Existing land uses within the Sector Plan area include an eclectic mix of office, retail, industrial, and high rise residential. There are 4,800 jobs and 179 dwelling units currently within the Sector Plan area. The development pipeline will raise the numbers to 5,136 jobs and 1,134 dwelling units. Public facilities include the Aquatic Center and Wall Local Park, the Metrorail facilities, a 15-acre Metrobus facility and the Montgomery County Pre-Release Center on Nebel Street.

E. LAND USE AND ZONING RECOMMENDATIONS

This Plan's recommendations for the White Flint Sector Plan area are shown on Figures 18 and 19. In *all* instances where TS-M is recommended, it is to be limited to a 2.0 FAR, with a maximum cap to be allowed only if any increase between 2.0 and 2.4 is all residential and includes at least 50 percent affordable housing. The proportions of commercial to residential uses up to 2.0 FAR shall be as follows: FAR up to 1.5, two-thirds commercial and one-third residential (maximum 1.0 FAR commercial and 0.5 residential); between FAR 1.5 and 2.0, additional density above base 1.0 FAR commercial must be residential (maximum 1.0 FAR commercial and 1.0 FAR residential).

In order to provide flexibility to meet other County-wide goals, the County Council may permit, in its decision approving a local map amendment application, up to a 2.0 commercial FAR for TS-M properties in the White Flint Sector Plan area. In order for the Council to approve over a 1.0 FAR, an applicant must establish that the following criteria are met.

1. That the parcel is a greater than 6 acres;
2. That between a 1.0 and a 2.0 commercial FAR is necessary for an identified employment user;
3. That 1.0 FAR of residential development must be provided on-site;
4. That the employer shall provide and fund a traffic mitigation plan to mitigate all generated trips above a 1.0 commercial FAR.

4.4 WHITE FLINT

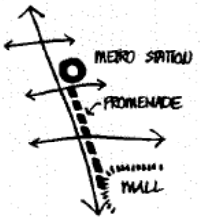
A. IMAGE

North Bethesda's Urban Center

B. DESCRIPTION

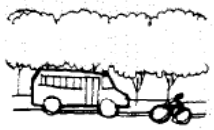
This area is topographically prominent and is therefore easy to see from many vantage points along the Pike. New buildings in the area have begun to establish a new vertical scale; however, the horizontal scale is vast. Blocks are too long and large for efficient pedestrian circulation. The volume of traffic inhibits comfortable pedestrian access to the Metro. A new, more urban scale, with tamed vehicular movement, enhanced streetscape, a fine-grained street grid, urban parks and high intensity mixed-uses would improve the area for pedestrians, and thereby strongly support Metro. (Figures 42-44.)

C. GUIDELINES



Paths:

- Provide a grid with small blocks and pedestrian-friendly streets within walking distance of Metro.
- Continue the NRC promenade on the east side of the Pike from the Metro station southward to White Flint Mall, at ground level over the Metro tunnel.



- Establish a shuttle and a bicycle route connecting White Flint Mall to White Flint and Twinbrook Metro stations, utilizing the Metro tunnel easement wherever possible.
- Develop a shuttle bus hub at Metro.
- Establish a special east-west street between Marinelli and Old Georgetown Road as a main, pedestrian-friendly avenue for the district. It should link a series of civic and open spaces, beginning with the Aquatic Center, intersecting with Rockville Pike, and extending to Nebel Street. A signal to provide for pedestrian crossing of Rockville Pike would be desirable. This would require a detailed operational analysis.

- Provide on-street parking to buffer pedestrians, to slow traffic and to provide more human-scaled local streets.

Nodes:

- Intensify development around the Metro station, in a mixed-use pattern, with employment dominant east of the Pike and housing dominant west of the Pike.
- Develop the image of a single node straddling the Pike by locating the tallest buildings along the Pike and stepping down in height to the east and west.
- Redevelop the existing Metro parking lot as an air-rights joint development, converting the surface lot to garage parking.

- Develop a community facility and park north of the Aquatic Center, as the western end of the east-west avenue and open space system. This is one of two possible sites for a community recreation center. It could provide a community focus for the existing neighborhoods to the west and southwest as well as for the new TS-R Zone neighborhood.

- Develop an urban open space east of the Metro station to include part of the existing tree stand and the white rock outcropping representing 'White Flint.' Expand the public space east and west of the tree stand to form a series of linked green spaces along the east-west special street.

Districts:

- Use equivalent streetscape treatments, block sizes, and building scale to visually link the east and west halves of the district. Apply these patterns throughout the area within walking distance of the METRO stop.

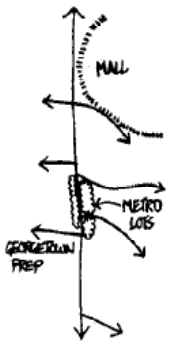
- Use the local white boulders in landscape plans to symbolize the 'white flint' image, as was done at White Flint Mall.

- Establish white stone as a theme element for all new architecture in the White Flint district, to provide a district identity.

Edges:

- Make every effort to overcome barriers to pedestrian movement across Rockville Pike, between Old Georgetown Road and Nicholson Lane, in order that the two halves of the node function efficiently as one.

- Develop the small WMATA-owned lots south of White Flint Mall on the Pike as a landscaped amenity open space which would, in conjunction with existing trees on the Pike's west side, clearly define the edge between the White Flint and Grosvenor districts.



Landmarks:

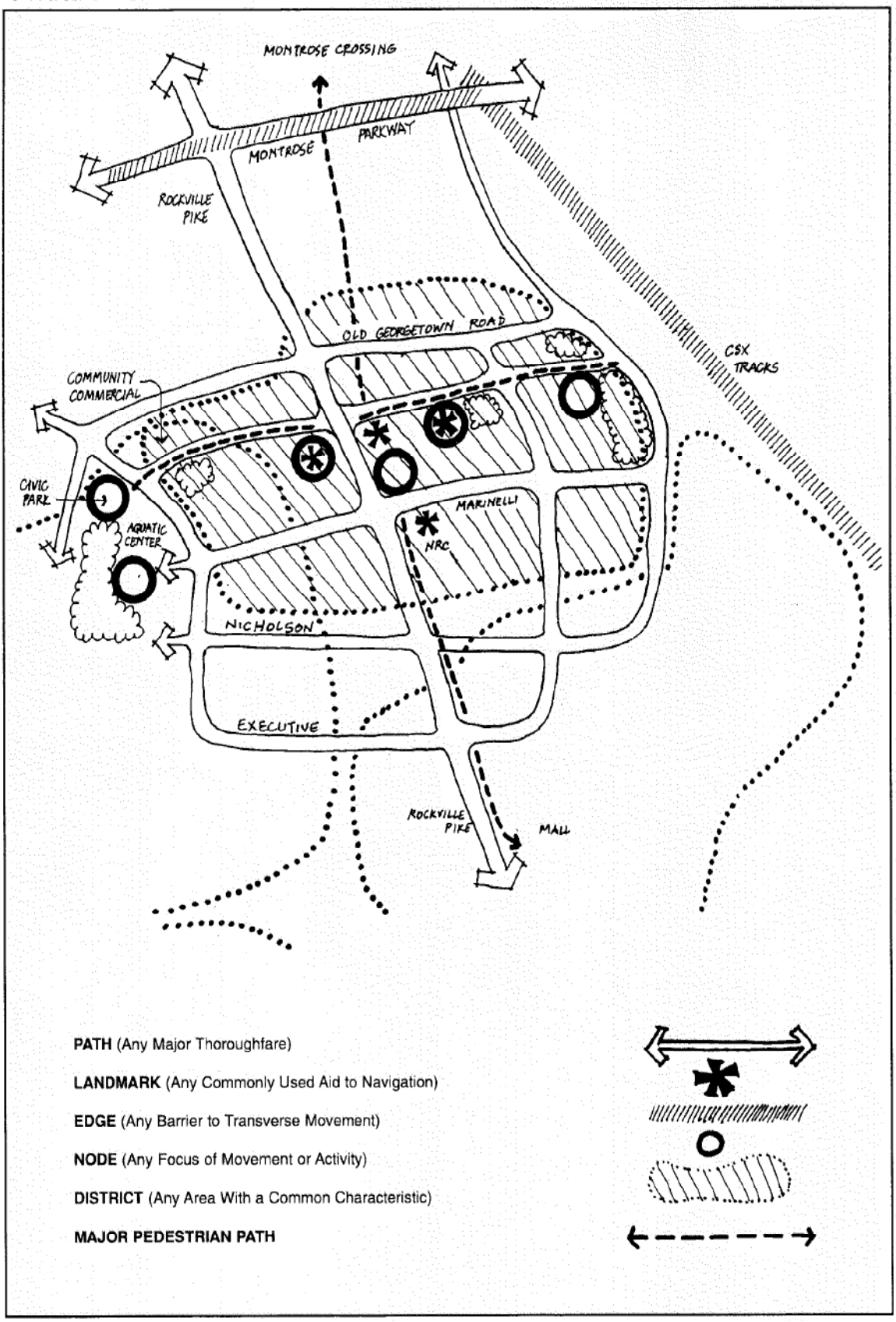
- Create a landmark of art and landscaping at the WMATA-owned lots south of White Flint Mall to help create a gateway between adjacent districts.

- Place the tallest buildings next to the Pike, on "top of the hill" to serve as landmarks.

- Use grade separations at Nicholson Lane and Montrose Parkway to create gateways into the White Flint district.

WHITE FLINT CONCEPT DIAGRAM

FIGURE 42



C. ROCKVILLE PIKE

Description

For most of its length through North Bethesda, Rockville Pike is a roadway devoid of trees and safe pedestrian routes. It consists of between six and nine 11-foot lanes in a right-of-way of 120-150 feet. In the few locations where there are only six lanes (no turn lanes or acceleration/deceleration lanes) the right-of-way accommodates a 12-foot median and 20 feet between the curb and the edge of the right-of-way. However, much of the Pike has a five-foot concrete median and only eight feet from the curb to the edge of the right-of-way, because of the turn lanes and acceleration/deceleration lanes. These conditions allow only a three-foot grass strip between the curb and a five-foot sidewalk. In several locations, a five-foot sidewalk abuts the curb, leaving no space for street trees. These conditions are inimical to pedestrian comfort.

The Rockville Pike streetscape should, in most areas, accommodate pedestrians and cyclists, and provide enhancement of desirable views and screening of undesirable views. An overall greening of the roadway environment is needed. The streetscape should unify the fragmented sections of the Pike while reinforcing a unique character for each sector or significant area.

Guidelines for Rockville Pike Prototype

The *standard* prototype recommended for the Pike includes a double row of street trees and sidewalks on both sides of the road (Figure 51). *Variations* of the prototype will be recommended where necessary to fit within physical constraints or where desired to provide a unique character. For example, each district might have a different species of street tree within an overall continuous pattern of tree placement, in order to provide both individual identity for the district and continuity along the Pike.

- Widen the right-of-way as necessary to allow two rows of street trees with a six-foot sidewalk between rows of trees.
- Plant median trees wherever the median is eight feet or more in width.
- In areas within walking distance of transit stops, establish a build-to line ten feet beyond the right-of-way line.

Minor Amendments to the North Bethesda/Garrett Park Sector Plan, 1992

- July 1994: staging amendment
- April 1997: Conference Center/Hotel Complex amendment. Identifies the WMATA parking lot west of Rockville Pike as the preferred location for the Conference Center.

Approved and Adopted 1994 Staging Amendment to the 1992 Plan

After the Plan was approved and adopted, a task force reporting to the Director of Montgomery County Department of Transportation was formed in 1993 to consider ways to implement the recommended Transportation Management District (TMD), including organizational structure, public policy implementation strategies, and public/private partnership. In 1993, the County Council adopted TMD legislation for North Bethesda. In 1995, the TMD was created and provisions made for funding.

In November 1994, the County Council approved the Staging Amendment to the 1992 Plan. Its purpose was to explain the relationship between the 1992 Plan and the Annual Growth Policy (AGP). The amendment outlined key principles and guidelines for three stages of development: Stage 1 - Short Term, Stage 2 - Mid-Term, and Stage 3 - Long Term.

The most detailed recommendations pertain to Stage 1. The Amendment identified priority pubic improvements to support the anticipated development and established transportation demand management goals to maintain the balance between development and transportation capacity. The Staging Amendment was intended to guide future AGP decisions.

Stage 1 for the Metro Station Policy Areas "... indicates improvements necessary for adequate circulation to accommodate the FY94 development ceilings within legislated levels of service standards." (Page 265) Moving to Stage 2, required the creation of a transportation management organization.

The Plan recommended the following development staging standards:
- a 1994 AGP staging ceiling of 4500 jobs and 4350 dwelling units
- an amended CLV standard from 1,600 to 1,800
- an Alternative Review Process for subdivisions in the Metro Station Policy Areas
- a transportation demand managment organization
- decreasing single-occupancy vehicle mode share for employees by four percentage points (from 78 percent)
- a parking policy of constrained long-term parking

The Plan also recommended new and extended streets:
- Chapman Avenue between Nicholson Lane and Old Georgetown Road
- Woodglen Drive Extended from Nicholson Lane to Marinelli Road
- B-11 from Marinelli Road to Old Georgetown Road
- Executive Boulevard from Woodglen Drive to Huff Court

The following bikeways were part of the transportation system:
- Chapman Avenue
- Woodglen Extended
- B-10
- Executive Boulevard
- Rockville Pike
- Marinelli Road
- Strathmore Avenue

Also recommended were pedestrian crossings at Rockville Pike's intersections with Marinelli Road, Nicholson Lane, and Old Georgetown Road. Finally, intersection Improvements were recommended at Rockville Pike corssings of Nicholson Lane and Randolph Road.

Stage 2 was to begin when a new staging ceiling has been approved through the AGP and a transportation management organization was formed.

Stage 2 facilities in White Flint were:

- Chapman Avenue
- other business district streets and bikeways recommended in Stage 1
- operational or capacity improvements to selected intersections.

Stage 3 involved amending the North Bethesda/Garrett Park Plan, and conducting a comprehensive transportation study to determine if additional transportation facilities and transportation management programs are necessary, and if other means can meet congestion standards including increased transit service and additions to the street, intersection, bikeway, and pedestrian network.

Status of 1992 Recommended Public Facilities within the White Flint Sector Plan Area

Facility	CIP number	Comments
Community Facilities		
Expansion of Wall Park		
Amenity space at the White Flint Metro station		
Montrose Pkwy right-of-way to be a greenway		
Upgrade older park facilities		
Roads		
Montrose Pkwy—western segment	500311 (west) 500717 (east)	under construction programmed
Chapman Ave between Nicholson Ln and Old Georgetown Rd	500719 Randolph Road to Old Georgetown Road	under construction
Woodglen Dr Extended from Nicholson Ln to Marinelli Rd		Dedicated as part of LMA G-860
B-11 from Marinelli Rd to Old Georgetown Rd		Dedicated as part of LMA G-801 (Also B-10, Chapman/ Citadel)
Executive Boulevard from Woodglen Dr to Huff Ct	Woodglen Dr to Rockville Pike part of LMA G-830	
Bikeways		
Chapman Ave		
Woodglen Dr Extended		
B-10		
Executive Blvd		
Rockville Pike		
Marinelli Rd		
Strathmore Ave		
Pedestrian Crossings		
Rockville Pike intersections: Marinelli Rd, Nicholson Ln, Old Georgetown Rd		
Intersection Improvements		
Rockville Pike at Nicholson Ln and Randolph Rd		

Status of CIP projects Serving Sector Plan Area

*Projects not recommended in the 1992 Plan

Facility	CIP number	Comments
Nebel StExtended*	500401	Randolph Road north
Nicholson Ln Bridge*	500504	Replacement of bridge over CSX tracks
Davis Library	710703	
Police Substation District 2	470702	
North Bethesda Community Recreation Center	720100	
Garrett Park ES*	056505	
Luxmanor ES*	076502	
Ashburton ES*	076500	
Farmland ES*	026501	

Comparison of Planned, Proposed Development, 1992 and 2009

The proposed 2009 Plan updates the 1992 Plan's development potential. Tables 1, 2, and 3 compare the total, nonresidential, and residential development proposed in each plan.

Table 1

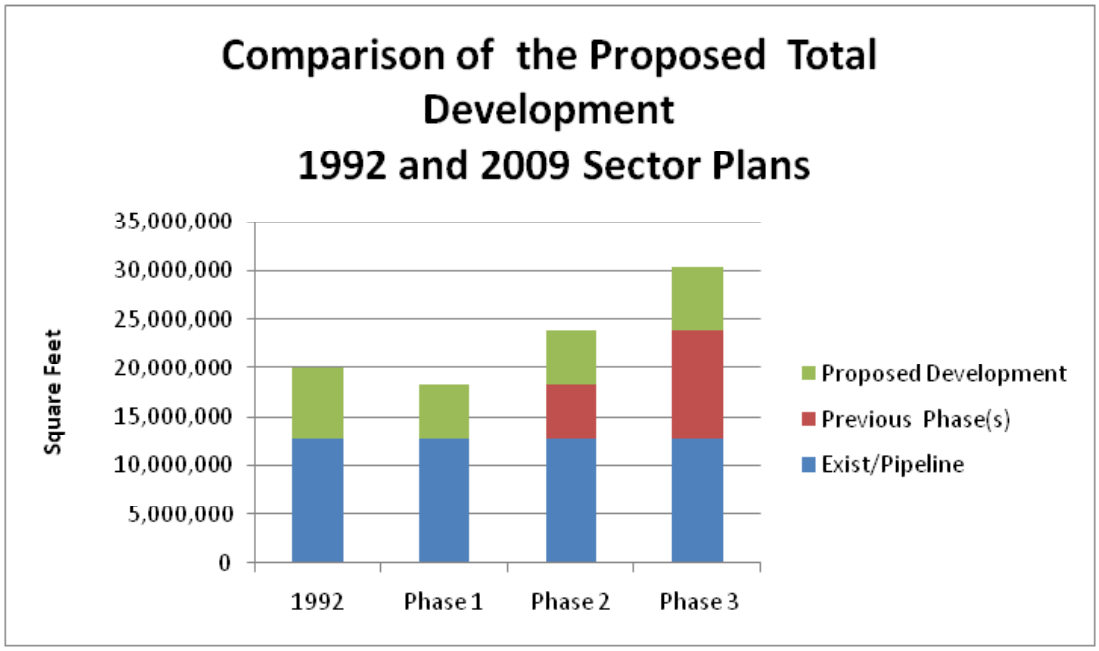


Table 2

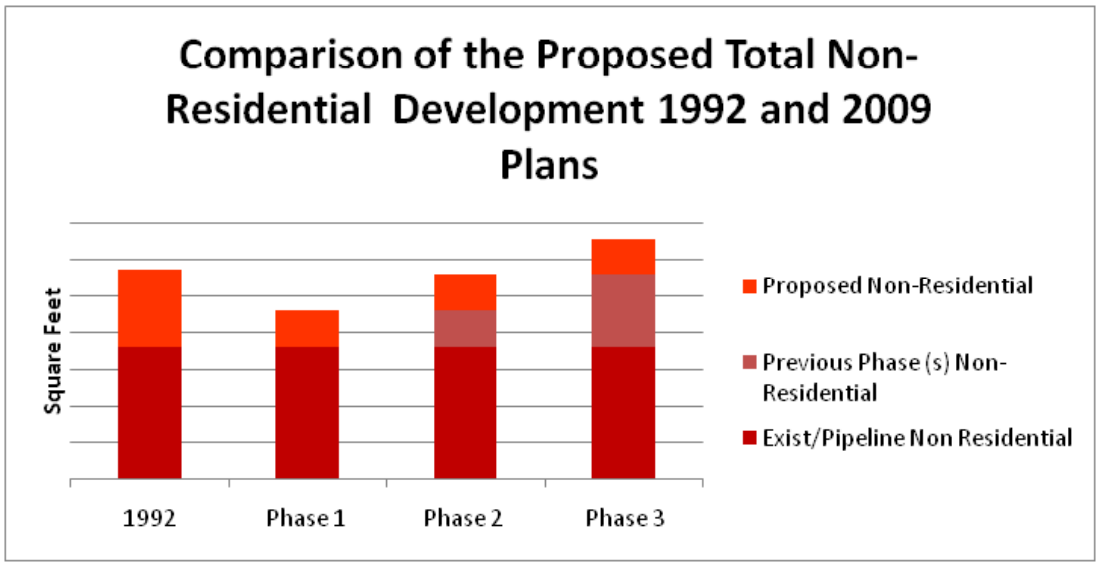
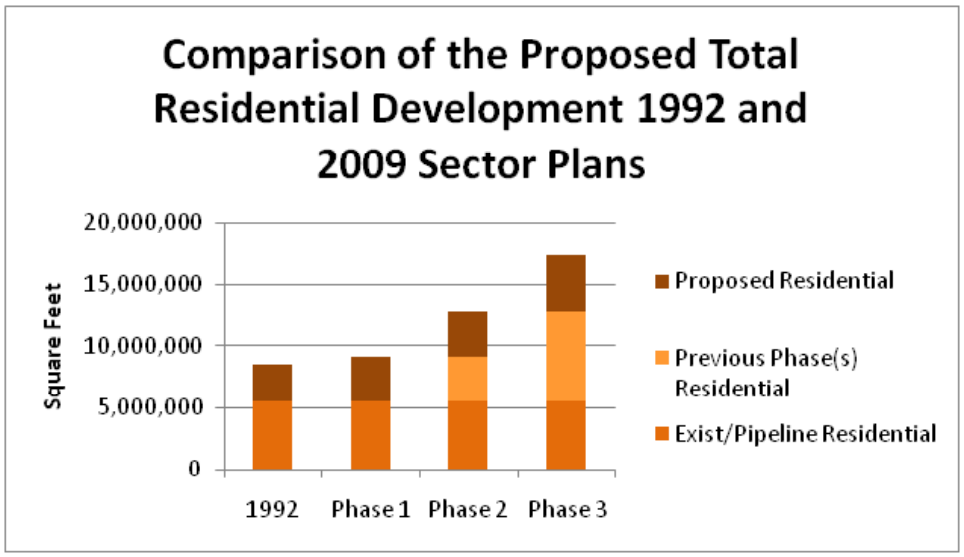


Table 3



Notes

All residential units are converted into square feet at 1,200 square feet for each unit.

Existing and Pipeline development

- Includes existing projects and approved but not completed projects, such as North Bethesda Center, White Flint View, and North Bethesda Market.

1992 Likely Buildout

- The development remaining from the 1992 likely buildout is approximately 2,500 residential units and 4.29 million of nonresidential development.
- The 1992 buildout was derived from the zoning recommendations for the 200-acre White Flint Sector Plan area (smaller than the 2009 Plan area) and the 230-acres outside the Sector Plan area that would be included in the 430-acre Sector Plan Area delineated in the 2009 Plan.

2009 Staging Plan

- The proposed buildout in the 2009 Plan is based on the Staging Plan in the Planning Board Draft, which recommends 9,800 residential units and 5.9 million square feet of nonresidential development divided into three phases.
- Each phase contains 3,000 to 3,800 residential units and between 1.9 and 2 million square feet of nonresidential development.

Appendix

The White Flint Sector Plan
midtown on the pike

July 2009

Montgomery County Planning Department
The Maryland-National Capital Park and Planning Commission

www.MontgomeryPlanning.org