

Planning Board Draft Gaithersburg West Master Plan

October 29, 2009 PHED Committee Worksession

July 2009
Planning Board Draft

gaithersburg west master plan

The Life Sciences Center



Gaithersburg West Master Plan



Gaithersburg West Master Plan



Gaithersburg West Master Plan

Introduction

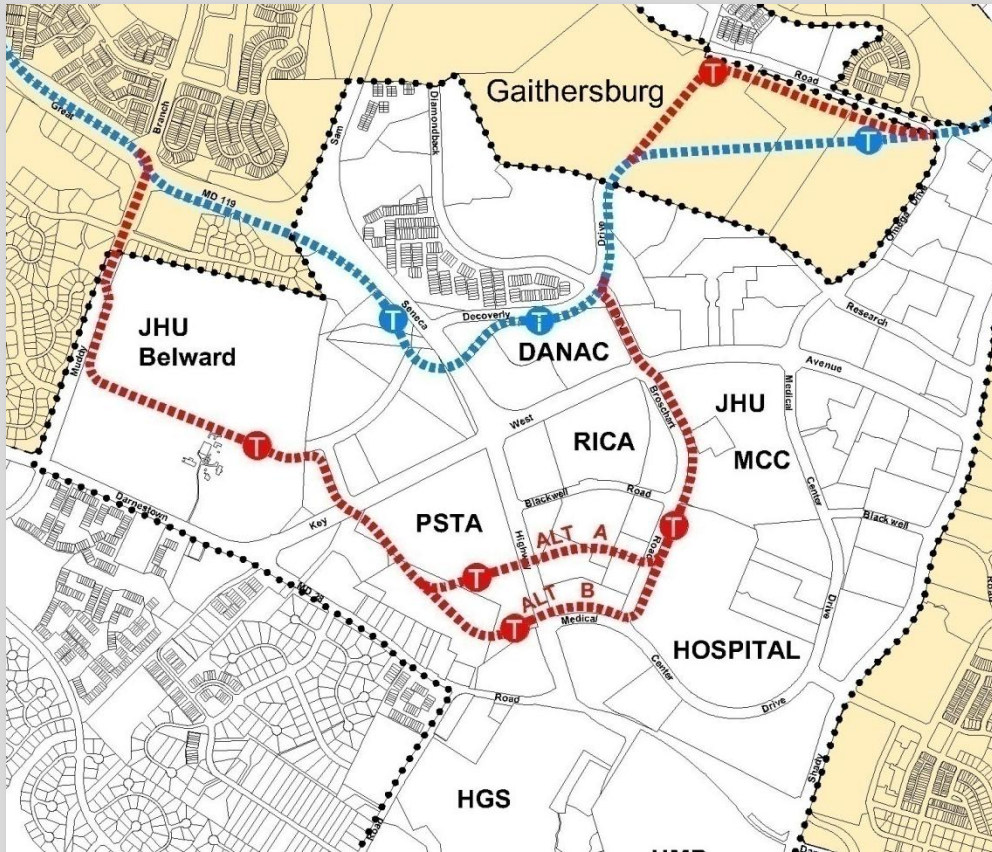
- Overview
- Council Staff Questions
- Councilmember Questions

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Overview

- Land Use and Transportation are in balance
 - Smarter CCT alignment
 - TDM
 - Walking/biking
 - Improved street grid
 - Highway system improvements
- Staging plan will augment APF
- Plan review in 6 – 10 years

Gaithersburg West Master Plan Corridor Cities Transit Way



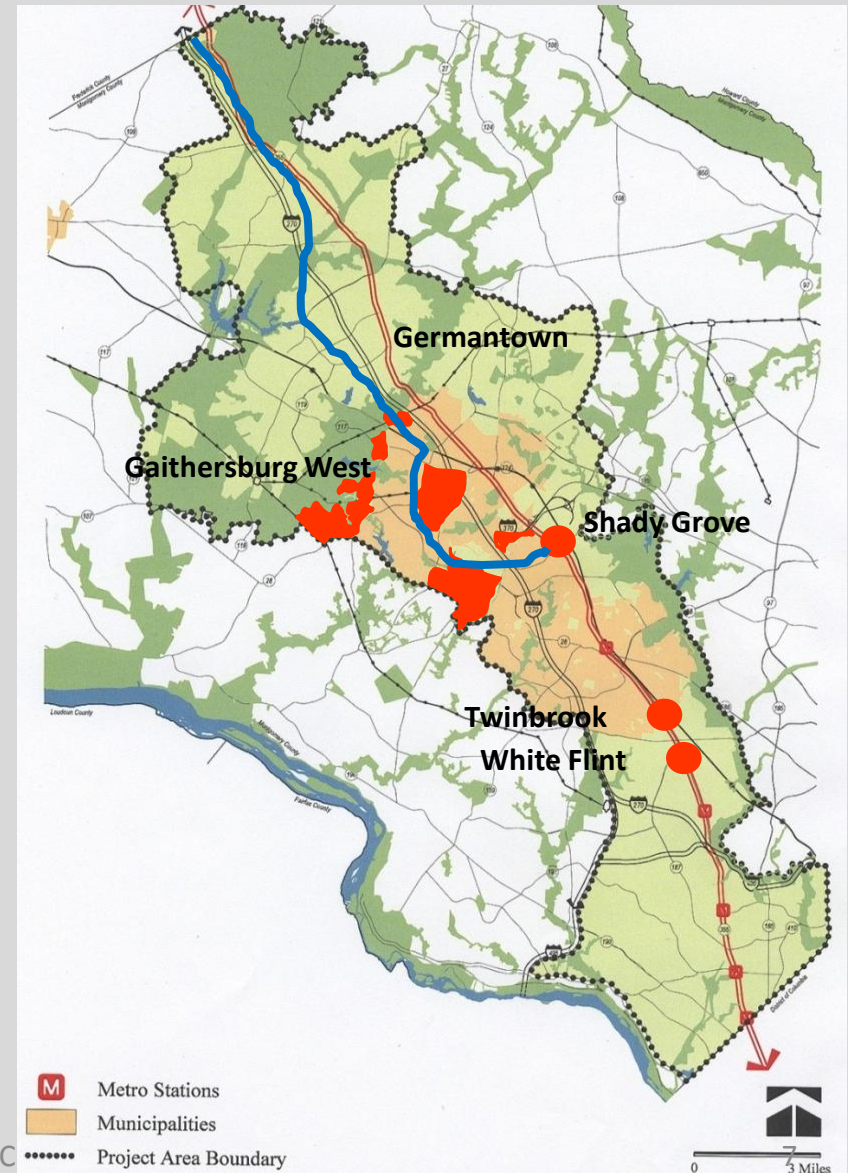
Higher density increases CCT ridership & cost effectiveness

CCT Proposed Alignment Alternatives

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Transportation Demand Management

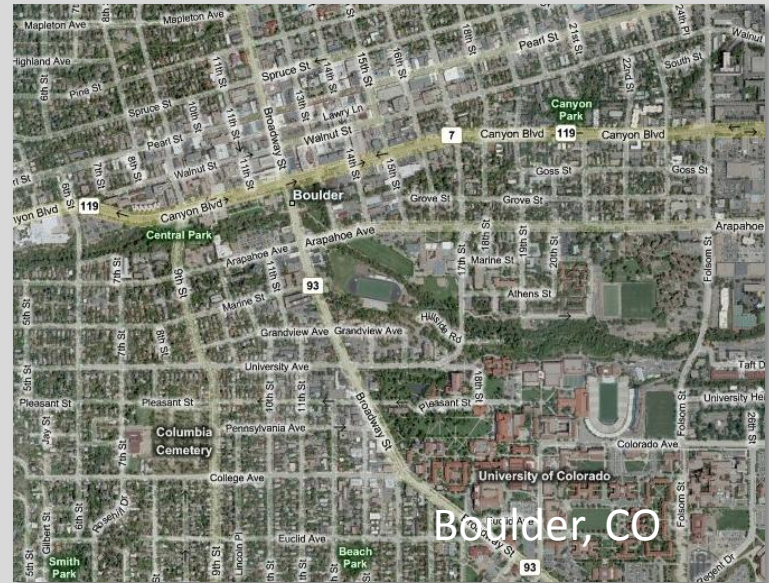
- White Flint - 39% NADMS
- Gaithersburg West - 30% NADMS
- Germantown - 25% NADMS



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Transportation Demand Management

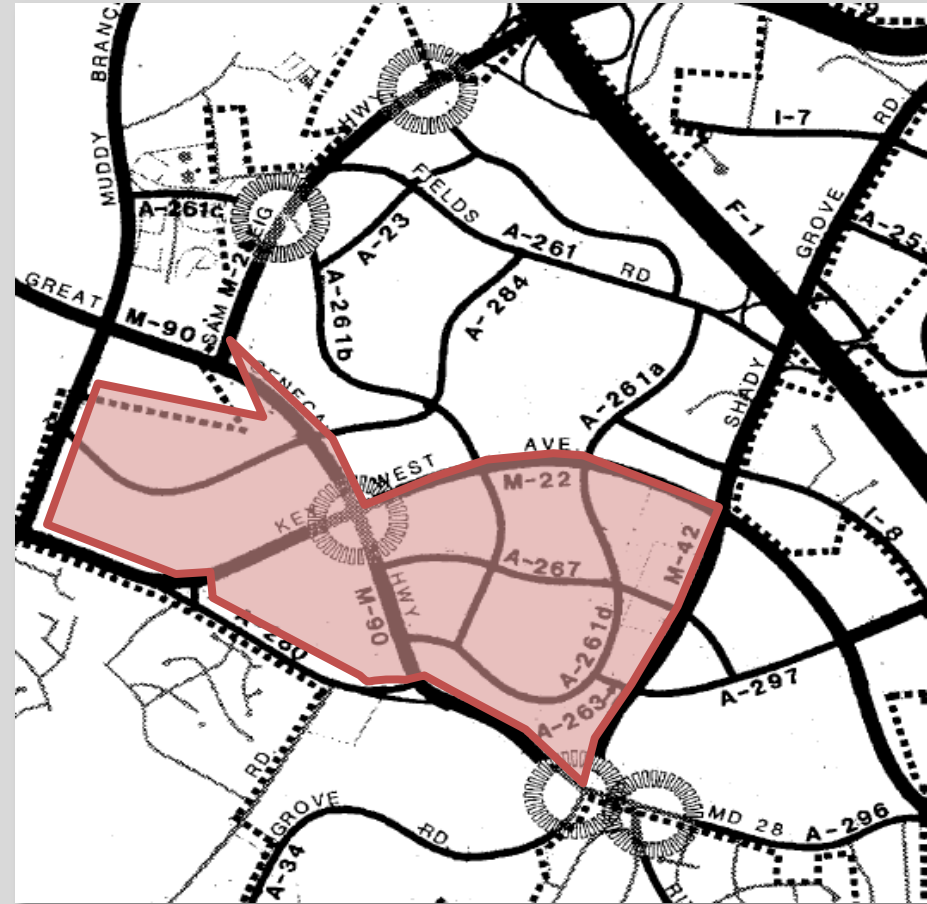
- 30% NADMS achievable without rail service
- > 25 miles from regional core
- Supporting Elements :
 - Institutional/research uses attract younger workers
 - Walkable street grid
- Street grid not achievable in/near LSC, hence some bigger roads



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Highway Network

- First interchange already built
- Second interchange needed now (in priority list)
- Plan finds :
 - Shady Grove interchange needed at MD 28, not Darnestown Rd
 - Interchange needed at MD 119/Muddy Branch Rd
 - Interchange needed at MD 119/Quince Orchard Rd (City of Gaithersburg)

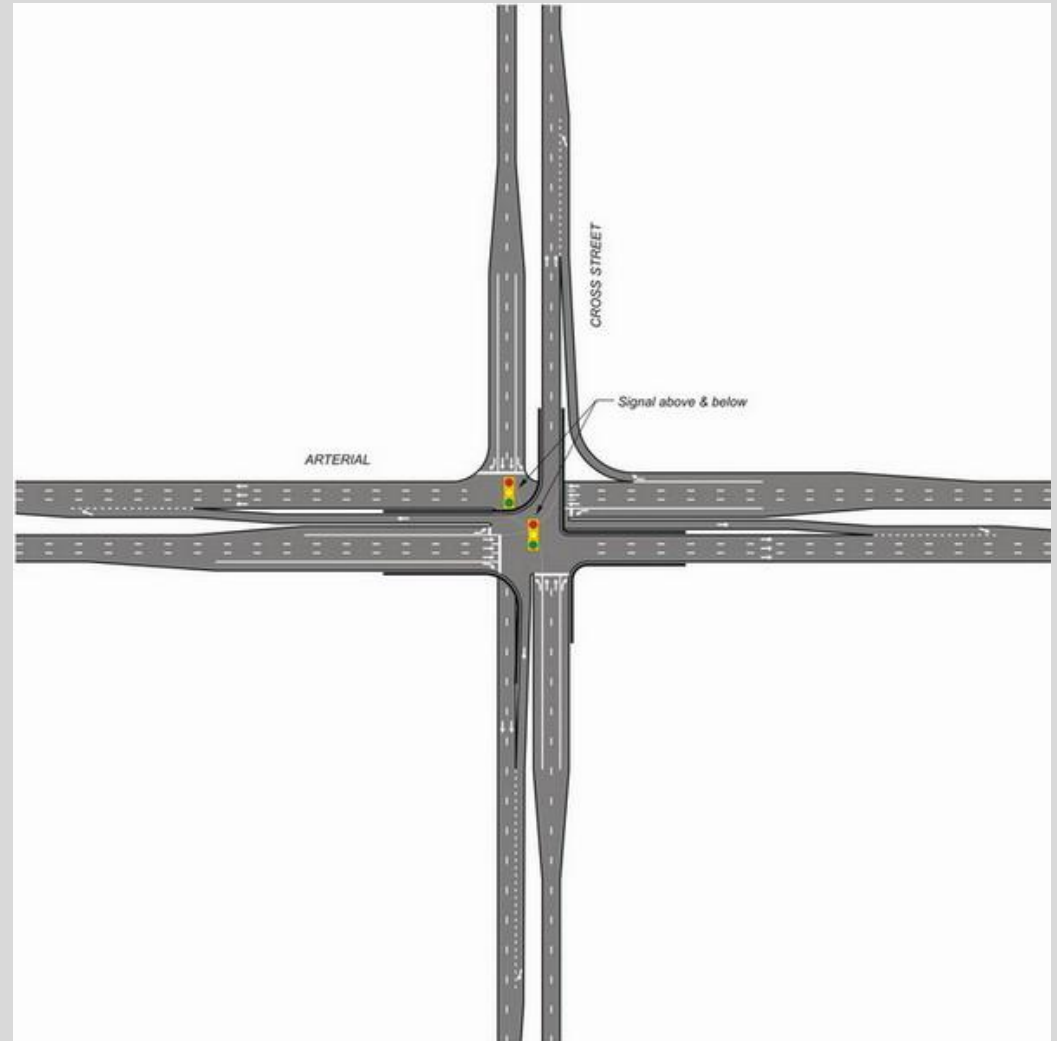


1990 MPOH Network with Grade Separated Interchanges Noted

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Highway Network – Interchange Design

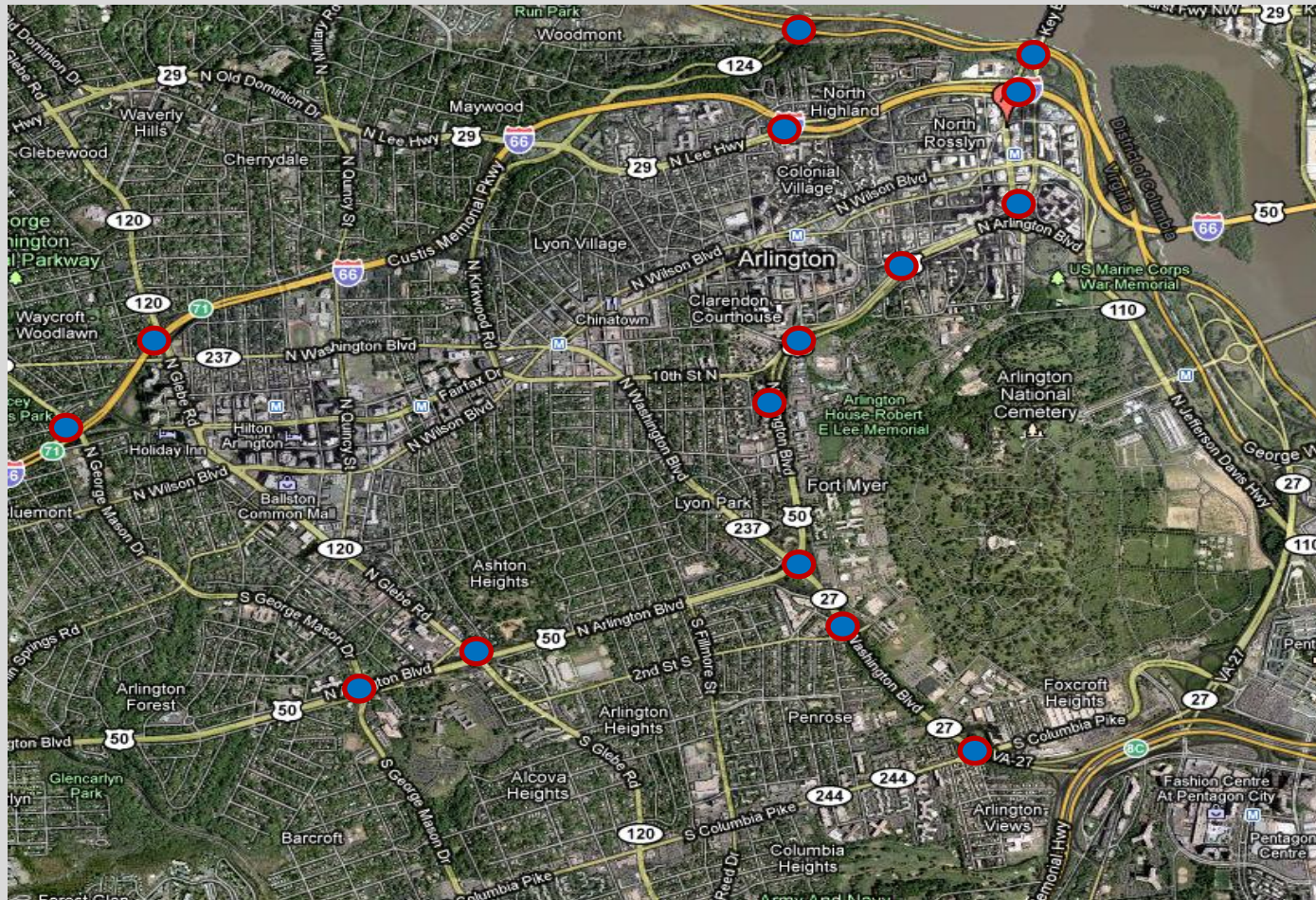
- Urban/Innovative
- Minimize space/impacts



M-NCPPC **Typical Echelon Interchange**

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Highway Network – Arlington , VA

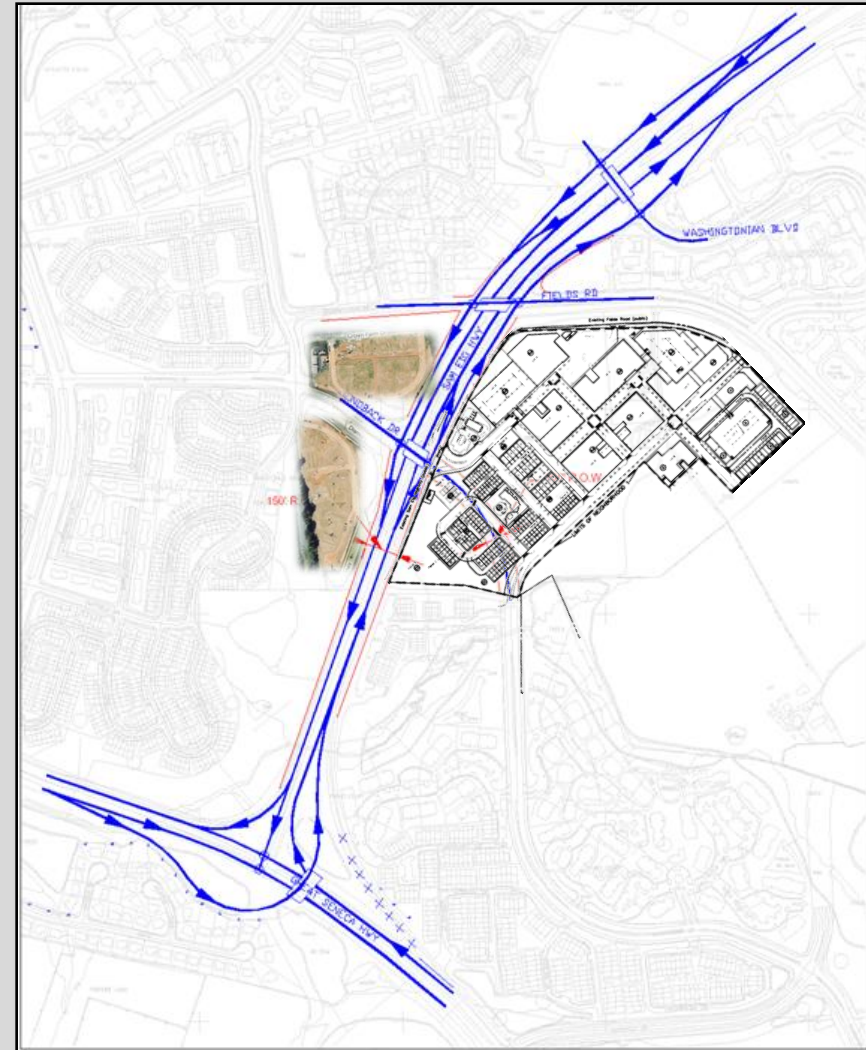


- Smart growth needs auto access
- Interchanges are **not** inconsistent with TOD

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Highway Network – Sam Eig Gateway

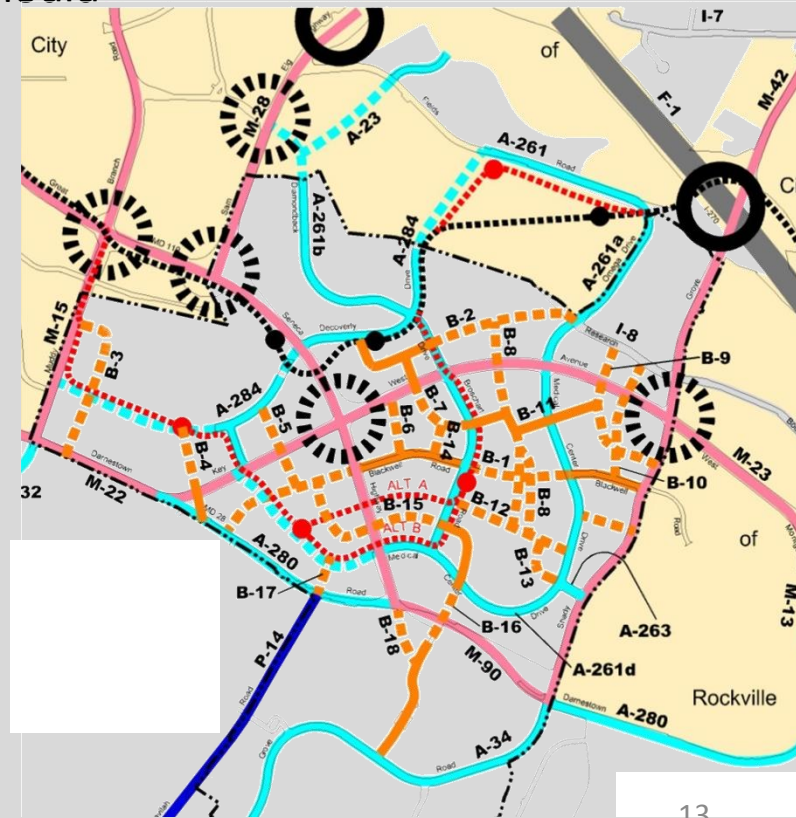
- Not just about V/C ratios
- Gateway to LSC: Mobility or Montgomery Hills?
- Crown Farm coordination



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Highway Network – Analysis Findings After PB Draft

- Direct Access to Belward **not needed**
- MD 119/Key West Avenue interchange **not needed**
- Diamondback Rd connection to Sam Eig Hwy should be **deleted** per coordination with the City of Gaithersburg



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Attachment A – Council Staff Questions

Question # 1: How did the Planning Board determine that 20 million square feet was the appropriate amount?

- Based on careful review of all properties in the LSC
- Most properties in LSC Central have reached existing development capacity
- 20 million is maximum theoretical build-out - all master plans have build-out amount, which is not always achieved
- Density is a compromise some wanted more
- Minimum Density to support Transit



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Attachment A – Council Staff Questions

Question #1: How did the Planning Board determine that 20 million square feet was the appropriate amount?




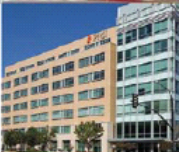
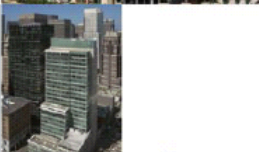

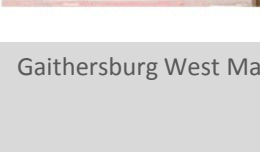

What factors are necessary to transform the LSC from yesterday's outmoded research park model to tomorrow's vibrant center of science and innovation?

- Transit is paramount
- Mixing rather than segregating land uses
- New housing opportunities in the LSC
- Improved street network
- Open space network

What minimum level of development is needed to

- Support a transit system through the LSC
- Provide growth of existing businesses and institutions
- Attract new businesses, including federal agencies

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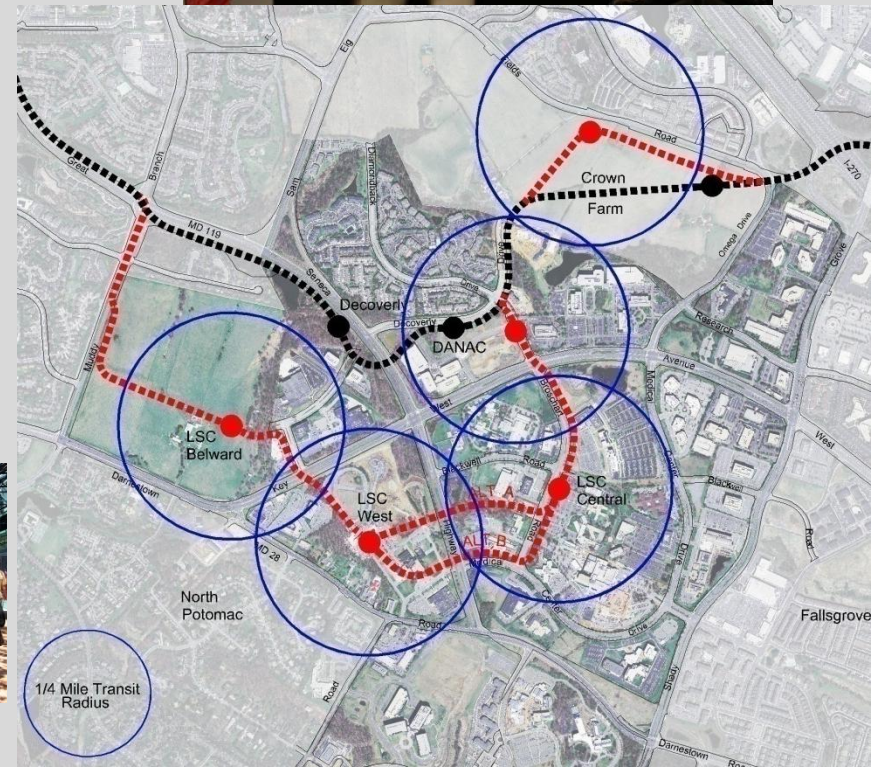
	Net Density	Characteristics	Construction Type	Parking Configuration	
<i>Mid-Rise Residential Over Commercial</i>	40-90 du/acre	3-6 stories with apartments, single- or double-loaded corridors with lobby entrance, off-street parking in structure or below grade	Type I/III (max 6 stories with building code modification/65 feet)	Groundfloor podium/subgrade or elevated structure	
					
<i>High-Rise Residential Over Commercial</i>	60+ du/acre	7+ stories, usually with base and point tower, single- or double-loaded corridors with lobby entrance, off-street parking in structure or below grade	Type I/II (max 12 stories/120 feet/no limits on Type 1)	Off-street parking in structure or below grade	
<i>Low-Rise Office/Commercial</i>	0.5-2.5 FAR	1-3 stories with lobby entrance to upper floors; retail, office or mixed-use with mix of tenant types, including limited large-footprint retail uses; parking in surface lots or structures	Type III/IV/V (max 4 stories/65 feet)	Off-street parking in groundfloor podium or surface	
					
					
<i>Mid-Rise Office/Commercial</i>	2.0-5.0 FAR	3-7 stories, with lobby entrance to upper floors, office with potential groundfloor retail, parking in structure or below grade	Type I/II (max 12 stories/160 feet)	Off-street parking in structure or below grade	
<i>High-Rise Office/Commercial</i>	4.0+ FAR	6+ stories with lobby entrance to upper floors sometimes with point tower over base, office with potential groundfloor retail, parking in structure or below grade	Type 1 (no limits)	Off-street parking in structure or below grade	
<i>Institutional/Other Employment</i>	varies	schools, civic uses, stadiums, hospitals, other entertainment uses; range of densities and sizes; parking often in structures or below grade	Varies	Parking often in structures or below grade	

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Key Master Plan Recommendations

Transform LSC into a community that is:

- Competitive & Sustainable
- Served by Transit
- Allows growth of Medical Center and Biotech Companies
- Provides location for new biotech companies
- New Housing, Mix of Uses



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Revisit LSC Plan in Six to Ten Years

- Rigorous Staging Plan
- Economic Factors
- CCT Schedule
- PSTA Relocation
- Infrastructure cost and delivery



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Attachment A – Council Staff Questions

Question # 2: What is Board's assessment of alternative density proposals?

- Residents for Reasonable Development
- County Executive
- Montgomery County Civic Federation

If the goal of these proposals is to reduce densities, this will happen without changing the zoning envelope.

The build-out number is a maximum theoretical density that is highly unlikely to occur.

The maximum potential zoning in LSC Central is unlikely to be achieved due to the existing building pattern.

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- Smart growth increases transit mode shares

Exhibit C-2 – Estimated Journey to Work Mode Share for R&D Village Policy Area Employees

Scenario	Total Trips	By Transit	By Auto	By Walk/Bike	Total Non-Driver
2005	18,600	6%	8%	2%	16%
Low Scenario	24,300	9%	10%	3%	22%
Medium Scenario	56,800	14%	10%	4%	28%
High Scenario	70,200	15%	10%	7.5%	32.5%

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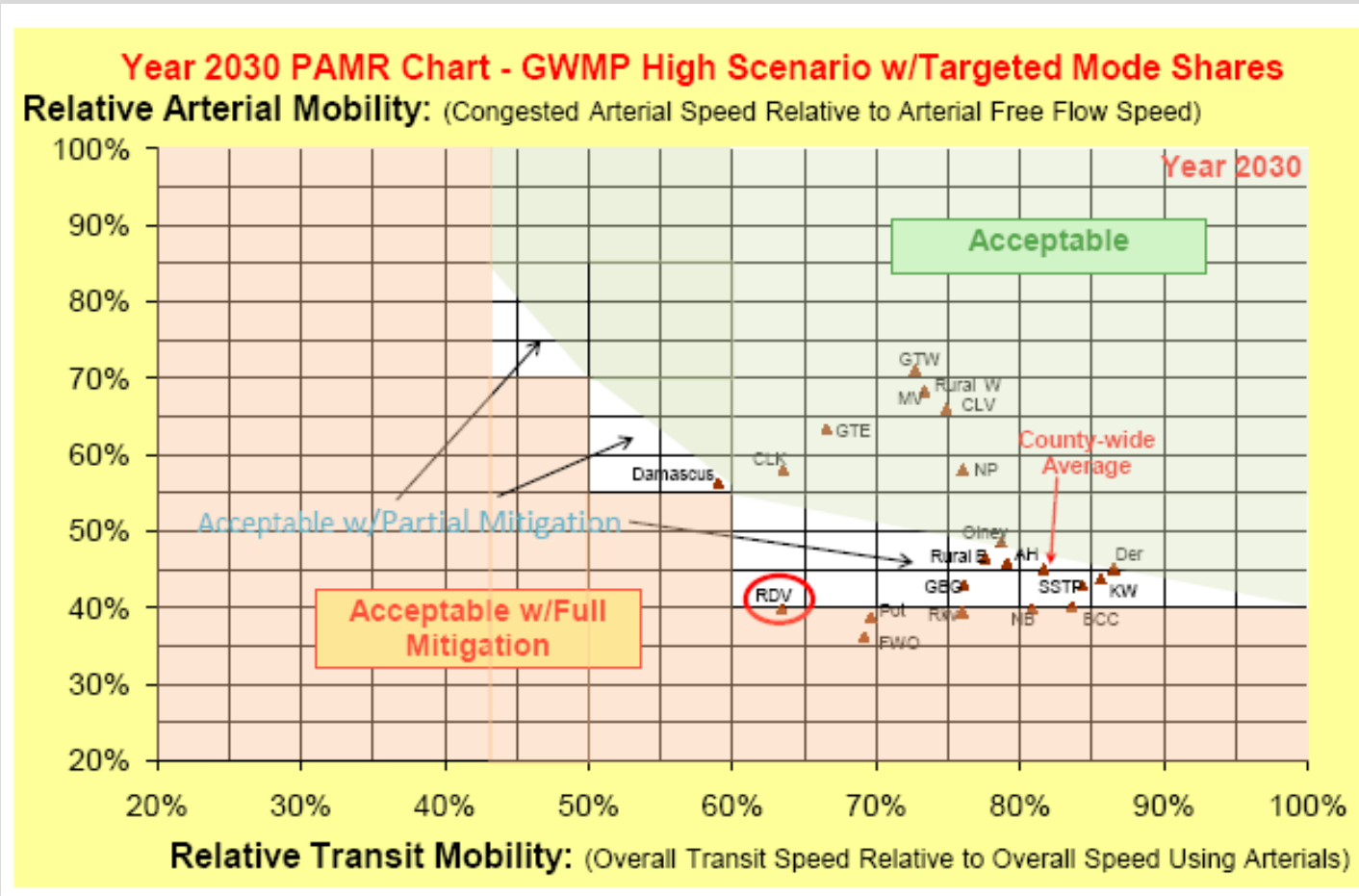
- Smart growth improves internal capture

Scenario	Internal trips	Total trips	Internal Trip Percentage
2005	412	15,684	3%
Low Scenario	1,017	19,880	5%
Medium Scenario	3,122	42,265	7%
High Scenario	5,847	48,601	12%

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PAMR Chart – High Scenario

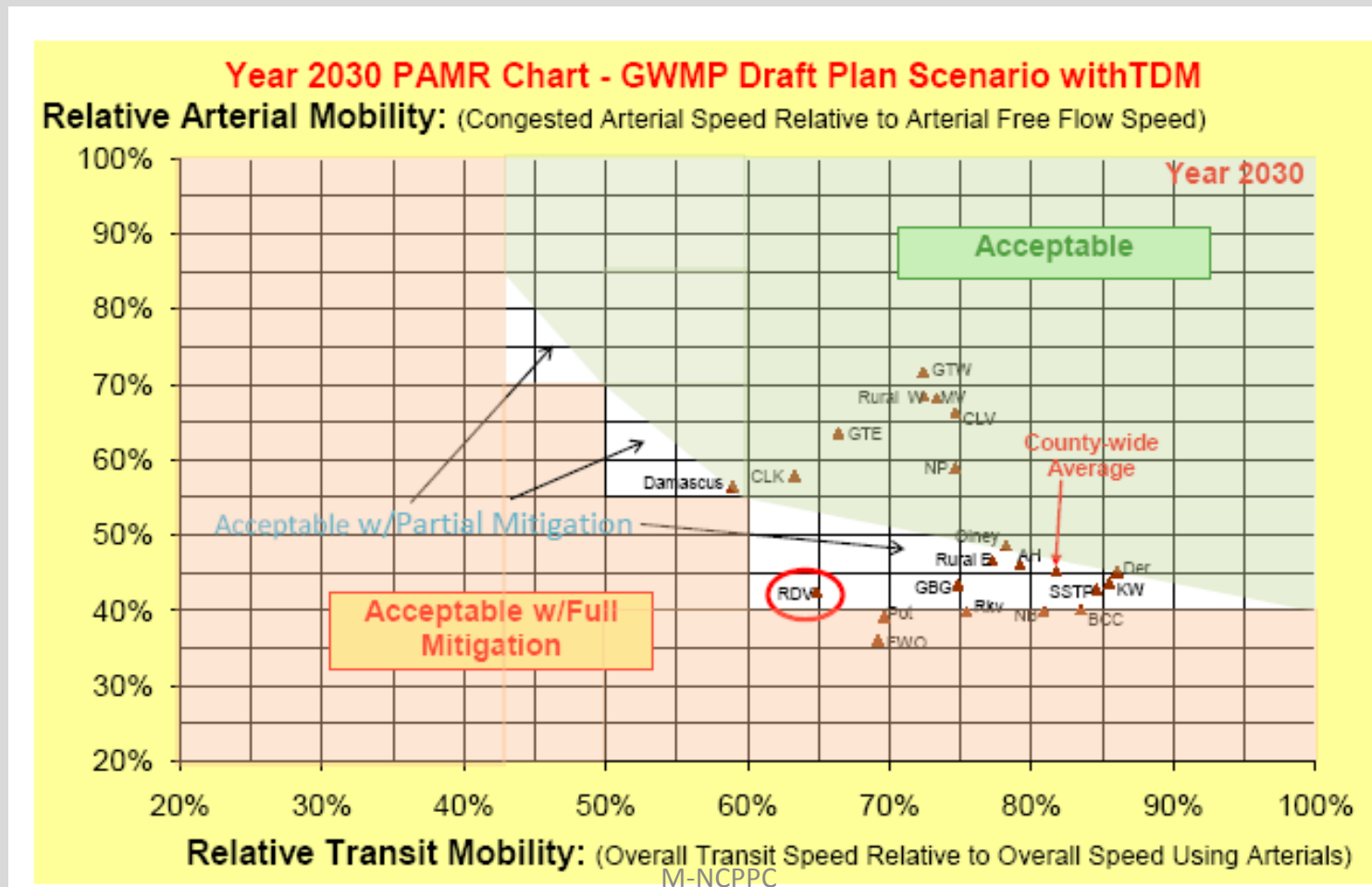
- Transportation/land use balance achieved



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PAMR Chart – Draft Plan Scenario

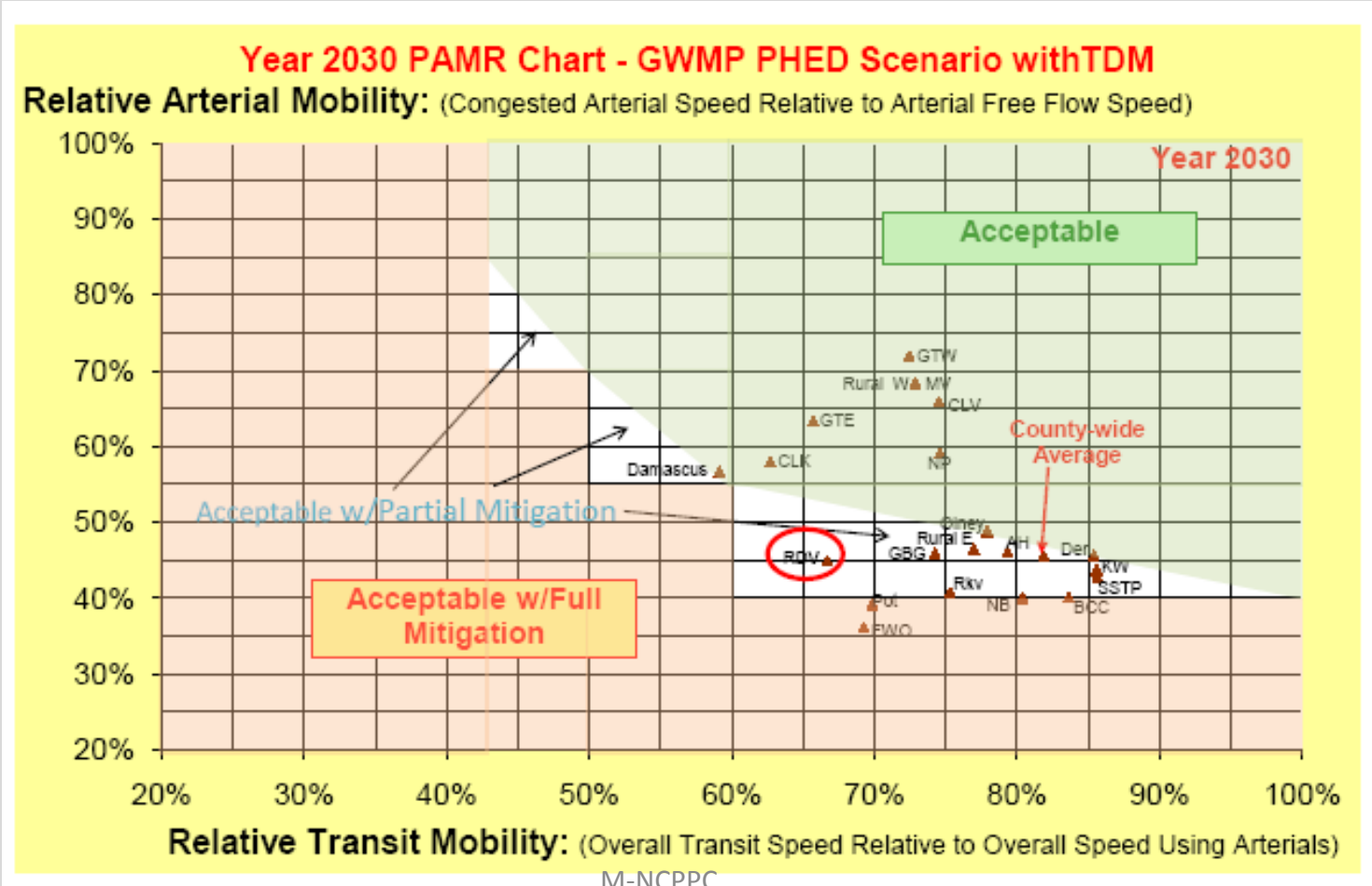
- Transportation/Land Use balance achieved



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PAMR Chart – PHED Committee Scenario

- Transportation/land use balance achieved



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- Critical congested locations more a factor of network than density

Average v/c ratios decrease slightly with density

- Existing = 0.75
- High Scenario (22 m sq ft) = 0.79
- Draft Plan Scenario (20 m sq ft) = 0.76
- PHED Committee Scenario (18 m sq ft)= 0.74

No. of intersections with v/c > 1.0

- Existing = 5
- High Scenario (22 m sq ft) = 6
- Draft Plan Scenario (20 m sq ft) = 4
- PHED Committee Scenario (18 m sq ft) = 5

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Conclusions

- Maximize efficiency while keeping countywide mobility policies
- Retain most grade separations as conservative approach for both numeric and stakeholder interests

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Attachment A – Council Staff Questions

Question #3 Did the Planning Board consider a greater concentration of density in portions of the LSC not adjacent to residential neighborhoods?

- Yes. The core area of the LCS Central District is recommended for 1.5 FAR (95 acres).
Remainder of LSC Central is 1.0 FAR (135 acres).
- Density on Belward is one-third less than originally requested by JHU.
Original Request: 1.5 FAR
Modified Request: 1.25 FAR
Public Hearing and Planning Board Draft Plans: 1.0 FAR

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LSC Central

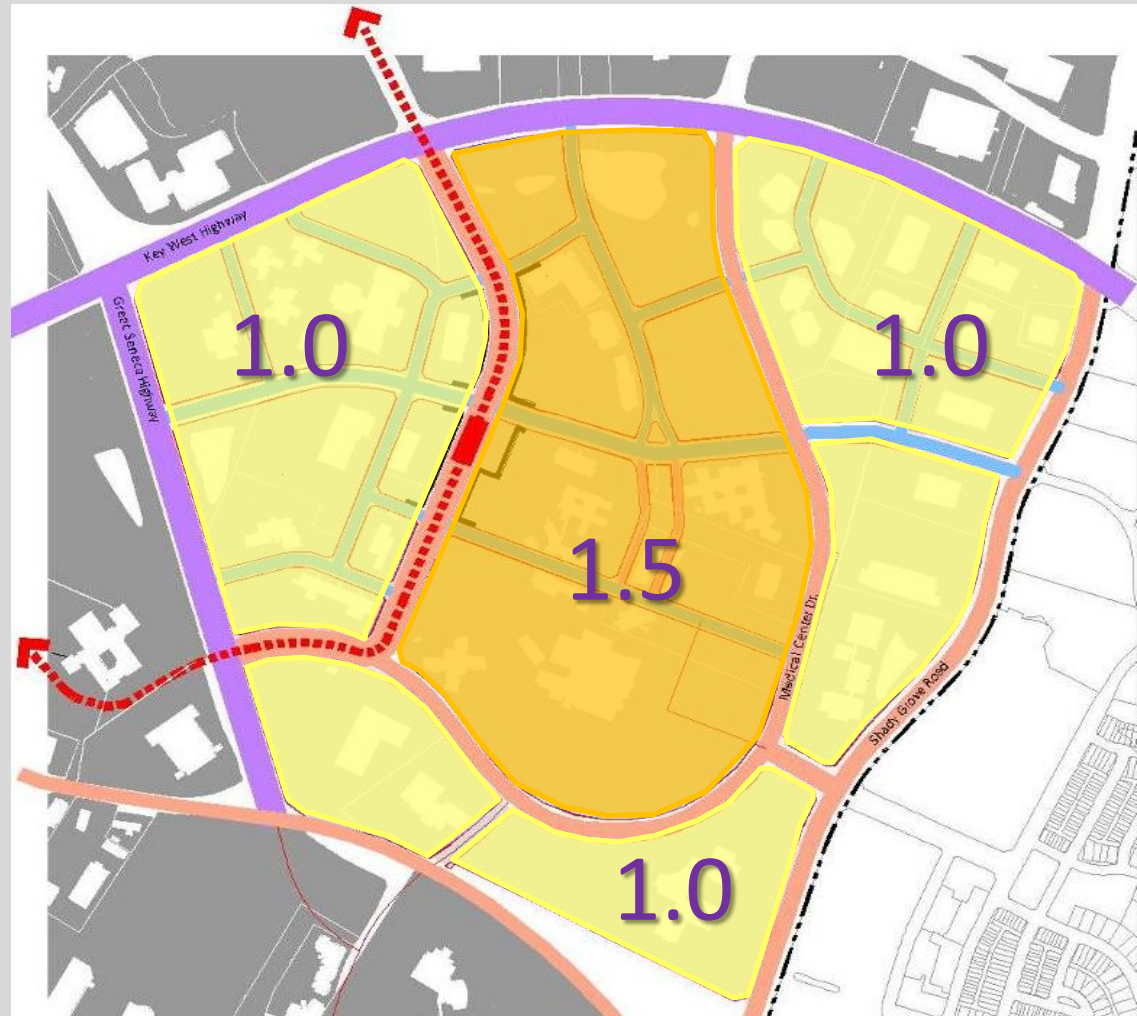
Local Street Grid

Up to 1.5 FAR at Medical Center & JHU-MCC

Up to 1.0 FAR elsewhere

More uses: retail & limited housing

Height: 150 feet maximum



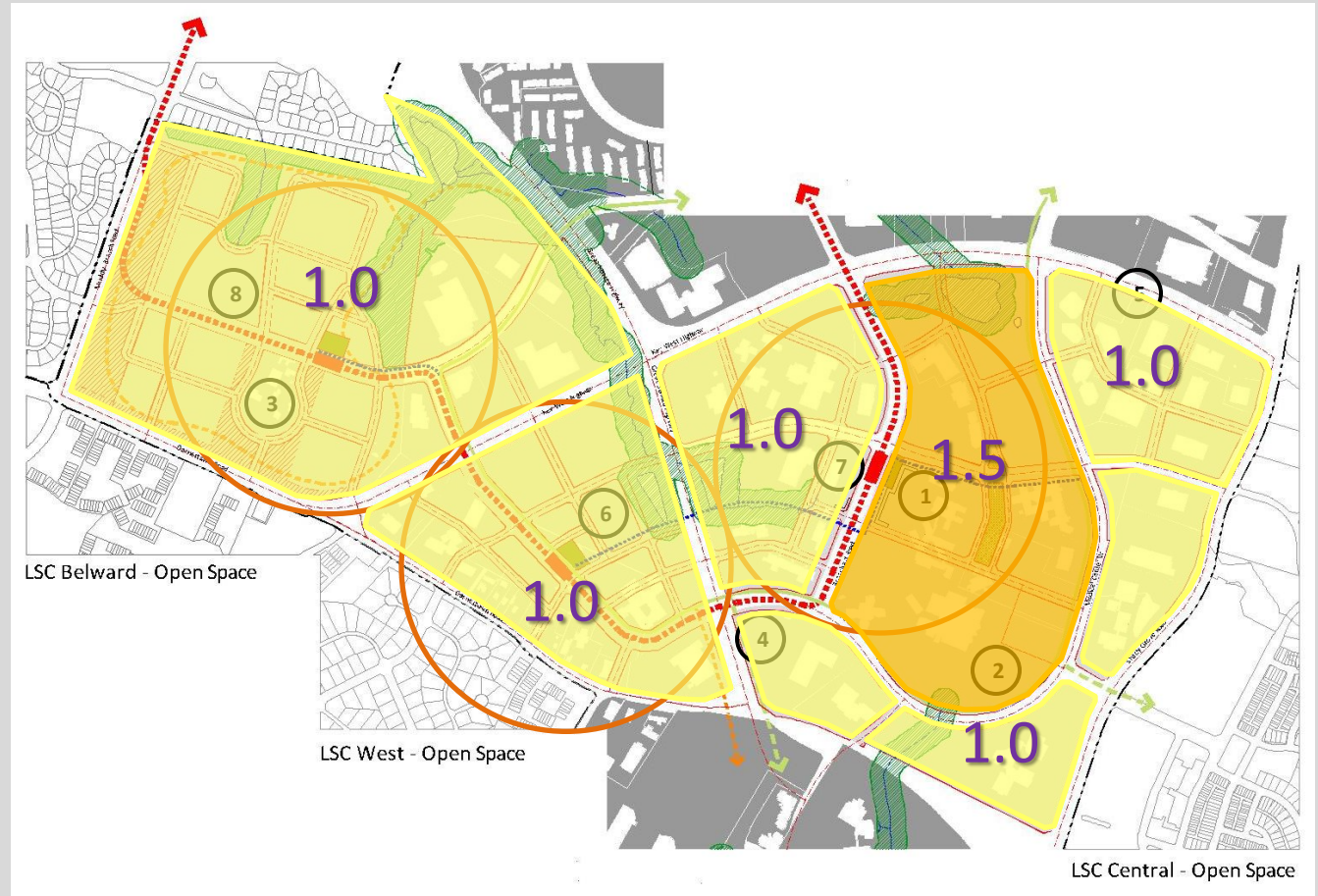
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Districts:

- LSC Central
- LSC (PSTA)
- LSC Belward

Design:

1. Public Open Space
2. Recreation Loop
3. Historic Sites
4. CCT
5. Existing Roads
6. Street Grid
7. Building Height
8. Planning for Science



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Attachment A – Council Staff Questions

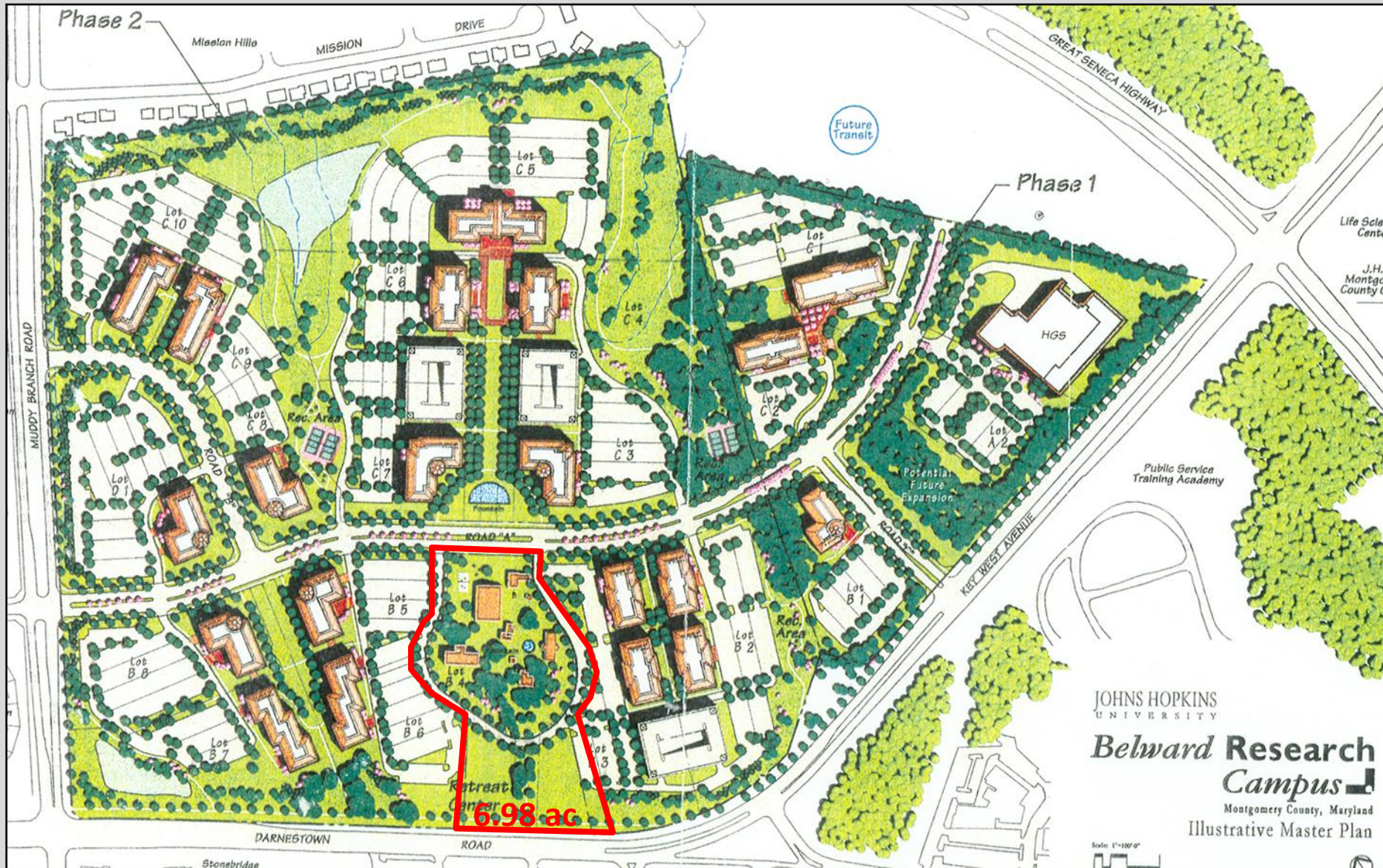
Question #4 What is the impact on surrounding communities and can the Plan better address the transitions to these neighborhoods?

The Plan recommends:

- Buffers along Muddy Branch, Mission Hills, Darnestown, and around streams.
- Expand historic area setting, preserve views, and consider community-serving reuse options.
- Heights transition from higher around transit (150') to lower around edges (50') and historic setting (60').
- Active and passive recreation should be provided, including ball fields within the buffer along Muddy Branch/Darnestown.
- LSC Loop; Muddy Branch Trail Connector & path system throughout Belward.

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1996 Approved Preliminary Plan for Belward Research Campus



Gaithersburg West Master Plan

LSC Belward

1996 Approved Preliminary Plan



2009 Proposed Master Plan



Gaithersburg West Master Plan

LSC Belward

1996 Approved Preliminary Plan



	1996 Preliminary Plan
<u>Green Areas and Buffers</u> <ul style="list-style-type: none"> • Muddy Branch Road Buffer • Mission Hills Buffer • Darnestown Road Buffer • Stream Buffer areas 	5 acres 6 acres; 150 feet wide average 50 feet minimum 15 acres
<u>Building Height and Area</u> <ul style="list-style-type: none"> • Building Heights 	3-4 Stories, 75 feet max.
<u>Parking Area</u> <ul style="list-style-type: none"> • Parking lot areas • Preserves landmark tree 	33 acres (surface parking lots) No
<u>Transit Access</u> <ul style="list-style-type: none"> • On-site CCT or BRT system 	No
<u>Historic Setting</u> <ul style="list-style-type: none"> • Belward Farm Buffer 	7 acres
<u>Floor Area Ratio/Square Feet</u>	0.3 FAR = 1.4 million (0.5 FAR-zoning max.)

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LSC Belward



2009 Illustrative	Concept Plan
<u>Green Areas and Buffers</u> <ul style="list-style-type: none"> • Muddy Branch Rd. Buffer • Mission Hills Buffer • Darnestown Road Buffer • Stream Buffer areas 	13 acres; 300 feet wide 8 acres; 200 feet wide 3-4 acres; 60 feet min. 15 acres
<u>Building Heights</u>	50-150 feet
<u>Parking Area</u> <ul style="list-style-type: none"> • Parking lot areas • Preserves landmark tree 	6 acres (garages) Yes
<u>Transit Access</u> <ul style="list-style-type: none"> • Onsite CCT or BRT system 	Yes
<u>Historic Setting</u> <ul style="list-style-type: none"> • Belward Farm Buffer 	10-12 acres
<u>Floor Area Ratio/Square Feet</u>	1.0 FAR = 4.6 million

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Belward Comparison Table

	1996 Preliminary Plan	2009 Concept Plan
<u>Green Areas and Buffers</u> <ul style="list-style-type: none"> • Muddy Branch Road Buffer • Mission Hills Buffer • Darnestown Road Buffer • Stream Buffer areas 	5 acres 6 acres (150 feet wide average) 50 feet minimum 15 acres	13 acres (300 feet wide) 8 acres (200 feet wide) 3-4 acres (60 feet wide min.) 15 acres
<u>Building Height</u> <ul style="list-style-type: none"> • Building Heights 	3-4 Stories, 75 feet maximum	50-150 feet
<u>Parking Area</u> <ul style="list-style-type: none"> • Parking lot areas • Preserves landmark tree 	33 acres No	6 acres (footprint of garages) Yes
<u>Transit Access</u> <ul style="list-style-type: none"> • On-site CCT or BRT system 	No	Yes
<u>Historic Setting</u> <ul style="list-style-type: none"> • Belward Farm Buffer 	7 acres	10-12 acres
<u>Floor Area Ratio/Total Square Feet</u>	0.3 FAR = 1.8 million (0.5 FAR zoning maximum)	1.0 FAR = 4.6 million

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Belward Buffers

45+ acres of Open Space and Buffers:

1. Setting for farm – 10 -12 acres
2. Muddy Branch buffer - 13 acres
3. Mission Hills buffer - 8 acres
4. Darnestown Road – 3 acres
5. Stream valley parks – 15 acres



Open Space Amenities/Local

-  Mission Hills Forest Preserve
-  Muddy Branch Park
-  Belward Commons
-  Darnestown Gardens
-  Tree-Lined Boulevard



Mission Hills Forest Preserve



8-acre buffer + 15-acre stream buffer

- Passive Recreation
- Hiker/Biker Trails/LSC Loop
- Reforestation and Stream Buffer



Muddy Branch Park



- 13+ Acre Park
- Active and Passive Recreation
- Informal and Organized Playing Fields
- Tree-lined Buffer along Muddy Branch

Belward Commons



- 10 - 12 Acre Preserve

- Recreation/Cultural Facilities

- Adaptive Reuse of Historic Farm
Buildings

- Weekend Farmers Market



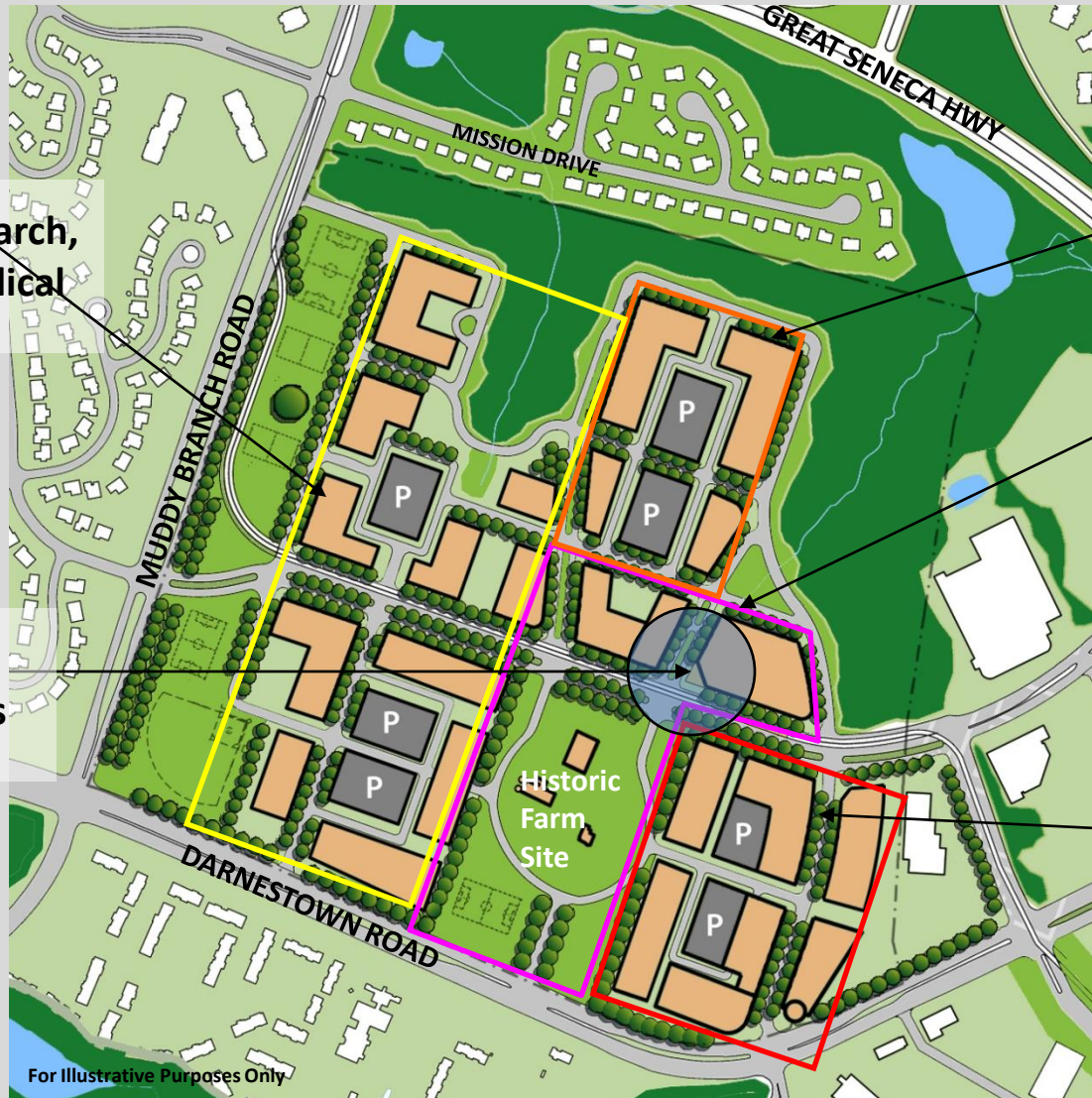
Darnestown Gardens



- 3.0 Acre Garden
- Environmentally Sensitive Landscaped Buffer along Darnestown Road
- Provide Shaded Pedestrian Path and Participate in Stormwater Management
- Maintains Vista to Farmhouse Setting



Belward Neighborhoods & Places



Hopkins Institutes

- Hopkins Research
- Hopkins Medical Center
- Hopkins Education

Belward Commons

- Recreation
- Related: Housing
- Retail
- Restaurant
- Hospitality
- Conference

Public/Private Labs

Public/Private Research,
Education and Medical
Facilities

Urban Square at
Belward Commons
CCT

Urban Square at Belward Commons CCT



- Civic Space at CCT Station
- Locus of Daily Activity and Community Retail/Services
- Space for Special Events and Gatherings



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Attachment A – Council Staff Questions

Question #5 What is the timeframe for build-out of the Master Plan and is it appropriate to rezone the area if density will not be achieved in the lifetime of the Plan?

- The Planning Board recommended zoning/density that supports growth of LSC that can be accommodated by the planned transportation system
- If we do not put the zoning and density in place now, we will perpetuate the existing pattern rather than allow change over time to create a more competitive and complete community
- LSC Central property owners have requested more development capacity for past decade
- We should zone for the density that is reasonable for the future
- We need to reserve land that may be required for infrastructure

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Attachment A – Council Staff Questions

Question #6 SHA/MTA concerns regarding timing and land use/transportation assumptions should be addressed.

- Board concurs with Council staff that Plan can move forward
- Board, Executive branch, MTA agree on CCT realignment through LSC
- Land use/transportation assumptions are sound and conservative
- Staging plan is rigorous and ensures infrastructure delivery occurs before development

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Attachment A – Council Staff Questions

Question #7 What combination of transportation facilities and services would be needed to provide land use-transportation balance for the alternative land use scenarios?

- RRD proposal, CCT realignment through LSC unlikely due to insufficient density to justify relocation; some interchanges still needed; elementary school and fire station still needed
- Executive recommendation – Lower density proposals make it difficult to achieve levels of development that result in amenities, new street network, green loop

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Attachment A – Council Staff Questions

Question #8 Does an extension of Sam Eig Highway into Belward obviate the need for an interchange at Muddy Branch/Great Seneca or at Key West/Great Seneca?

- Possible extension of Sam Eig would not affect the ultimate need for Great Seneca interchanges with either Muddy Branch or Key West.
- Sam Eig extension provides some benefit to Muddy Branch/Great Seneca intersection in the am, but not pm.
- If Key West is widened to eight lanes, interchange at Key West/Great Seneca is not needed for capacity purposes.

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MD 119/Muddy Branch Rd Interchange

- MD 119/Muddy Branch Rd congestion not caused by Belward traffic
- New connection would not reduce v/c ratio below 1.0
- No need for 60 residential DU displacements
- CCT LSC alignment facilitates CCT thru intersection in SW quad
- Further design needed wit CCT coordination in first stage



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Attachment A: Council Staff Questions

Question #9 Should specific transportation projects be included in the staging plan?
Should the zoning recommendations be staged?

- Agree with Council staff that performance triggers are appropriate
- Plan should identify interchange locations for reservation and include in staging as they are critical to the land use-transportation balance and the network
- Board believes the blueprint for the future must be established now – including putting the zoning and density in place
- Staging plan with specific square feet will be easier to track over time
- Approved zoning that is consistent with the Master Plan establishes the essential foundation for achieving the Plan’s vision